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**The Algerian Sociolinguistic Situation within
the Digital Environments of Communication:
Case of Facebook Multimodal Discourse**

Thesis Submitted to the Department of English in Candidacy
for the Doctorate Degree in Language Studies

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Statement of Originality

I, hereby, declare that the doctorate thesis before hands, entitled: **“The Algerian Sociolinguistic Situation within the Digital Environments of Communication: Case of Facebook Multimodal Discourse”**, is the result of my own work and that it contains no material that has been submitted previously, in whole or in part, for the qualification of any other academic degree or diplomat. I certify also, that this thesis contains no plagiarism and it is my own production, except where otherwise indicated.

Ms. Fatma ZAHALI

To my parents

To all people who encouraged me

To the research participants

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Abstract

The ubiquity and the popularity of the digital environments of communication coupled with regular technological developments have fuelled human interaction and altered the way people live, study, work, and use language. The integration of Facebook, one of these digital environments, in the Algerians' everyday social practices triggered curiosity and interest in investigating scientifically the Algerian sociolinguistic situation online, as an attempt to see whether or not it is represented faithfully and vigorously preserved within an advanced technological framework of communication. Accordingly, the research before hands is arranged under the frame of 'Internet Linguistics', a scope that has been open to include several subfields. In such a language-focused study, computer-mediated discourse analysis is adopted as a research approach, which is mainly grounded on an empirical design. Collecting empirical data required for this research is based on two sources, user-based as well as screen data; i.e. gathering data draws on ethnographic and textual techniques. The former relies on online observation, a snowball sampling technique for the questionnaire (243 respondents), and semi-structured interviews (12 participants), while the latter is based on random sampling and sampling by theme (49 illustrating examples). A mixed-method approach is used for analysis of the data gathered via the ethnographic techniques and qualitative content analysis is adopted to analyse screen data. Results of this empirical research reveal that the rich and the complex Algerian sociolinguistic profile has been transmitted to and maintained on Facebook. In addition, analyses of multimodal texts indicate that the Algerians draw on the digital and the semiotic resources available online for self-expression and self-representation in creative manners leading, hence, to the emergence of many new linguistic practices.

Keywords: The Algerian sociolinguistic situation, the digital environments of communication, Facebook, multimodal discourse.

List of Acronyms

CMC: Computer-Mediated Communication

CMD: Computer-Mediated Discourse

CMDA: Computer-Mediated Discourse Analysis

EMC: Electronically-Mediated Communication

F: Frequency

H: Hypothesis

IM: Instant Messaging

LA: Latinised Arabic

MSA: Modern Standard Arabic

P: Percentage

Q: Question

SA: Standard Arabic

SNSs: Social Networking Sites

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GENERAL INTRODUCTION

General Introduction

The regular technological developments have altered human life in unprecedented ways. For, the digitalisation of information has particularly facilitated, accelerated, and changed all forms of communication (with its new media, modes, and modalities) in the way content is searched, stored, transmitted, and recuperated. Actually, the globalisation of the world has never reached its ‘real’ global sense until the advent of the Internet (in the 1960s), which, later, made of the whole ‘universe’ a ‘global village’, where geographical, time, economic, political, social, cultural, ethnic, and linguistic boundaries have been transcended like never before.

Without exaggeration, Internet can be described as the miracle of the twentieth and the twenty-first centuries due, mainly, to the multiple services it provides alongside the new media of communication, with the various interaction areas they afford such as electronic mails, chat rooms, instant messaging, social network sites, etc. These digital environments of communication became so imbedded in people’s everyday social activities because of their ease of use, relatively cheap costs, and socialising nature, among others. Indeed, computer-mediated communication (CMC) is no longer limited to information exchange and task-focused purposes but it is, rather, a major means for establishing and maintaining long-lasting social relationships.

So, people started to be attracted and addicted to these digital platforms mainly because of their socialising dimensions. What is particularly interesting in such types of communication at distance is that people rely almost exclusively on language to build a world. Therefore, language use has been reshaped and adapted according to what suit the digital contexts and many new linguistic practices have emerged due to Internet’s electronic, global, and interactive nature (Crystal, 2001). In fact, CMC is said to revolutionise communication and language use in fundamental ways. This has boomed public criticism and flamed debates about its impact on ‘proper’ language, as people are said to be losing the ability to spell and write ‘correctly’ (Thurlow et al., 2004).

These debates have been sharpened in the Arab world, since Internet, with its various means of communication, is thought to be a new form of western cultural and linguistic imperialism. This is especially so because of the great ties that correlate the Arabic language to religion; i.e. according to many, any western production is considered as a threat to the Arab-Muslim cultural identity and existence. These fears are energised by the fact that such technologies are western innovations, they are loaded with western culture, and they are vehicular means of their languages, which are strikingly different from Arabic.

Arabic is characterised by many features that make it different from the other languages. It is considered as a classic case of diglossia, in which two discrete varieties co-exist in the same speech community (Ferguson, 1959). The issue as far as digital communication is concerned is that many believe that colloquial Arabic is displacing Standard Arabic (SA) from many domains that require writing, which have been traditionally monopolised by the codified version. That is, many of the writing conventions of Arabic are sacrificed online. In addition, these communication technologies have intensified contact between Arabic and other world languages leading, hence, to amalgamations of linguistic structures online because people are exposed all the time to foreign cultures and languages. The case of Algeria is so critical in this respect because it has always been a land of language contact due to its strategic geography, large space, and rich resources that attracted foreign occupations and settlements throughout history.

Several language varieties are used in Algeria, namely Arabic, Berber (with their different dialects), French, and English. In addition, many foreign loan words (from Spanish, Turkish, Italian, English, and so on) are scattered through the various Algerian regional dialects. The multilingual and rich characteristic of the Algerian sociolinguistic profile is becoming even more complex in the digital environments of communication, as more Algerians go online. Facebook is one of the most widely used amongst the many digital platforms available due to its multifarious services and the seducing multimodal communication possibilities it affords.

In the light of the hot debates and the controversial attitudes towards the impact of digital communication on language use and due to the popularity and the ubiquity of Facebook in Algeria, curiosity to know what is happening to languages online rose. So, my position as an Algerian sociolinguistic researcher, an intellectual, and an active Facebook user urged the need to undertake a scientific research about whether the traditional and outstanding characteristics of the Algerian sociolinguistic situation have been preserved, ruined, or changed on Facebook. Accordingly, the main problematic (followed by the main hypothesis) of this investigation is:

- Is the Algerian sociolinguistic situation with its rich and complex profile represented faithfully and vigorously preserved on Facebook within an advanced technological Framework of communication?
- Facebook mirrors the rich Algerian sociolinguistic situation. Actually, its complex features are not only transmitted to this digital platform, but they are maintained, preserved, and spread due to Facebook popularity and ubiquity in addition to the persistent nature of communication on it.

As an attempt to answer the main research question, the following sub-questions have been formulated. These questions are coupled with their hypotheses that are the outcome of the researcher's own observations and knowledge obtained from the site under investigation:

Q.1. What is the script used the most by the Algerians for text-based communication on Facebook? And why do they still maintain the use of Latinised Arabic in spite of the availability of the Arabic script?

H.1. There is a remarkable shift from the use of Latin script to Arabic in representing Arabic. Yet, Latinised Arabic is still maintained because of cultural, psychological, and pragmatic factors.

Q.2. What are the language varieties they use on Facebook and what factors determine their choices?

H.2. All the language varieties used by the Algerians offline are also used on Facebook and the choice of a specific variety rather than another is due to several reasons such as Facebook writing spaces, the interlocutors, the topic of discussion, in addition to some social factors like gender, age, education, region, etc.

Q.3. What are the main characteristics of their linguistic and scriptural practices on Facebook?

H.3. They adapt language according to what suit the digital contexts because of communication needs. For instance, abbreviations, shortened forms, exaggerated use of punctuation marks and letters, emojis, etc. are widely used. As for scriptural usages, the Algerians often switch between Latin and Arabic scripts. Some of them, mainly youngsters, use the Arabic script to represent French and English words and expressions.

Q.4. What are the main multimodal elements of discourse they use on Facebook? And what are their functions?

H.4. Algerians draw on the digital and the semiotic resources afforded on the site for self-expression and self-representation. They use language varieties, scripts, colours, images, caricatures, emojis, etc. in creative and strategic ways. These multimodal elements have systematic functions in discourse.

Therefore, the main objective of this research is to investigate the extent to which the Algerian sociolinguistic situation is preserved on Facebook and the new updates, if any, that it is acquiring in the digital contexts. In order to attain this aim, many topics will be considered,

like diglossia, multilingualism, language contact, code-switching/mixing, linguistic borrowing, script choice and usages, language variations, etc. In addition, this research also sheds light on the multimodal elements used and their functions. So, these issues are arranged into five major research agendas: 1) structural features of language use on Facebook, 2) scriptural practices, 3) multilingual encounters, 4) paralinguistic displays, and 5) multimodal discourse.

This research is significant because of three main reasons. First, to my knowledge, this topic has never been tackled before and it is high time to consider the future of the Algerian sociolinguistic situation within the current advanced technological Frameworks of communication. Second, it looks at the issue from a new perspective and it goes beyond mere judgements and prejudices, for it empirically studies Algerian linguistic practices on Facebook. Third, it documents the Algerian sociolinguistic situation in the period between 2014 and 2020 in one of the digital environments of communication (Facebook) in the fast-changing digital age.

Hence, the research before hands can be integrated into the field of ‘Internet Linguistics’, that includes many sub-disciplines. The focus here is placed mainly on the sociolinguistic approach to language study, with considering both of its micro and macro ends. In addition, due to the fact that language is used on Facebook as one of the many other semiotic and digital resources in discourse to fulfil specific functions, language use is considered as a practice in itself. Accordingly, discourse is perceived as the ways people use the various semiotic resources and systems available online to build and maintain their social worlds, values, and ideologies.

As far as research methodology is concerned, the researcher adopts an empirical research design, since it is the most suitable for language-focused studies in computer-mediated communication contexts. Such an approach of research is referred to in the literature as computer-mediated discourse analysis (CMDA), which analyses the different levels of language use in the digital environments. That is, its basic methodological orientation is content analysis. Content is selected from Facebook since it is the site under investigation due to the different writing spaces it provides for users to generate interesting linguistic practices required for the study, in addition to the platform’s popularity amongst the Algerians.

Two types of data have been gathered, user-based as well as screen data, because they are complementary and they serve the research objectives better when they are combined. The former relies on three ethnographic techniques; online observation, a questionnaire, and semi-

structured interviews. The latter is based on random collection of multimodal texts, which have been selected then by theme.

Online observation constitutes the platform on which this research stands, as it is the main source of knowledge and it provides a direct access to authentic linguistic material. In addition, questions of the interviews as well as the questionnaire are mainly formulated due to the knowledge acquired from the observation process, which took place from 2014 to 2020. Besides, forty-nine (49) illustrating examples have also been selected randomly while observing people's linguistic behaviours. The other data collection tool is a questionnaire; distributed to people from the different parts of the country (the east, the centre, the west, and the south) regardless of their age, gender, educational level, and occupation. A total of two hundred and forty-three (243) questionnaire responses have been accepted for analysis, since many have been dismissed because they do not accomplish the requirements of the research. Finally, twelve (12) Facebook users have been interviewed to clarify some points about the linguistic practices that have been observed either during the observation period or during contact with the questionnaire respondents.

Due to the fact that data in this research incorporates two different types, analysis of findings required the adoption of a mixed-method approach. Quantitative data have been obtained from the questionnaire and analysed by using a computer statistical program SPSS version 19.0. Qualitative interpretations have supplied these quantitative data and they have also been used to analyse data obtained from online observations and interviews. In addition, qualitative content analysis was adopted for the analysis of screen data. In analysing some multimodal digital data taken from Algerian Facebook usages, the researcher adopted a multimodal discourse method as the different communication elements have been qualitatively analysed in their socio-cultural contexts. This approach of analysis draws on Kress's and van Leeuwen's (1996) analysis of images and visual data, which is in turn based on Halliday's systematic functional linguistics.

As for the organisation of the present thesis, four complementary chapters constitute its major components that combine between theory and practice. Chapter one can be considered as the platform of the research since it states the most important characteristics of the Algerian sociolinguistic situation. It begins with a brief historical background of linguistic diversity in Algeria. Then, a summary of the Arabisation policy has been provided due to its crucial role in determining the sociolinguistic course of the country after independence. Language varieties

used in Algeria (Arabic, Berber, French, and English) in addition to language contact situations like diglossia, multilingualism, code-switching/mixing, and linguistic borrowing also constitute indispensable parts of the thesis because the researcher is interested in investigating how these phenomena are represented online.

While chapter one is devoted to the offline world, chapter two sheds light on the digital environments of communication and how linguistic alongside other semiotic and digital resources are being adapted to meet people's communicative, cultural, and linguistic needs. Accordingly, the chapter opens up with reviewing the major theories that tackled these new concepts like CMC, SNSs (emphasis is placed mainly on Facebook since it is the case under investigation), online communities, and multimodal discourse in the digital world. Moreover, the chapter also sheds light on some sociolinguistic issues online, with focusing mainly on the case of Arabic since it is a critical topic in online studies.

The third chapter is about the methodological framework of the research. It tackles the approach of the study (CMDA) and explains the factors behind adopting it. Then, factors of using an empirical research design are clarified because this determines sources, procedures, and tools of data collection. The research population and the sampling techniques are also crucial elements in any scientific investigation and their choice is justified in this chapter. Finally, the appropriate methods of data analysis are also important constituents in this methodological framework.

Chapter four is the nutshell of the research, as it incorporates all the research findings after collecting, analysing, and interpreting data. That is, it reveals the most important characteristics of the Algerian sociolinguistic profile on Facebook. The chapter displays and discusses qualitative as well as quantitative results obtained from: 1) online observations, 2) screen data, 3) the questionnaire, and 4) semi-structured interviews. Finally, conclusions are drawn after synthesising results of the research and the relevant literature.

Definition of Key Terms

1- The term digital environments of communication has been used throughout the work instead of the widely used labels in the field of CMDA studies (such as computer/electronic-mediated communication) because it fits better the research philosophy and aims. While CMC studies communication in the new media, the researcher perceives these media as environments where people meet and perform different practices in digital versions. In other words, the increasing socialisation of the different forms of electronic communication makes of them a ‘world’ rather than mere media used for communication. Interestingly, in spite of the anonymous and invisible nature of members of the digital world alongside the virtual context in which different kinds of interaction take place, these platforms are always governed by particular social norms and they require specific types of competencies for members to successfully engage in communication with others; including knowledge about the digital environments and the social norms that determine their membership, language use, and participation. Actually, every cyber space has its specificities that define it and set it apart from others. This research has chosen Facebook as a case study mainly because of the huge popularity it acquired in the world in general and in Algeria in particular, on the one hand, and the multimodal affordances it provides, on the other, among other factors.

2- Multimodal discourse is prevalent on Facebook; it is barely impossible to study linguistic features without considering the other components involved since they all together contribute to meaning construction as well as interpretation. Hence, any linguistic analysis that excludes this multimodality in digital discourse cannot really account for what online texts really mean in the new communication contexts and in people’s daily lives. Actually, people draw on the digital affordances, the semiotic resources and systems available on the site to build and maintain their social worlds, values, and ideologies. Accordingly, it is crucial to take into consideration the ways in which texts are created and used because they became part of the fabric of social life, especially in a period where interference between online and offline worlds is intensive. Indeed, people strategically mix between discourse modes, which have different sets of meaning potential. Thus, in order to understand the Algerian sociolinguistic situation on Facebook, the different discourse modes (languages, scripts, linguistic items, images, colours, emojis, stickers, etc.) have been considered throughout the different stages of data collection and analysis.

CHAPTER ONE:

THE ALGERIAN SOCIOLINGUISTIC SITUATION

Chapter One: The Algerian Sociolinguistic Situation

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1.1. Introduction

The Algerian sociolinguistic profile is said to be complex due to the interaction of various factors and parameters. It is the outcome of a long history that stretches back to ancient times, since traces of some languages and civilisations that existed in the far past are still considered as landmarks of the people's linguistic identity. In the contemporary period, the situation is becoming even more complex because contact between peoples is no longer restricted to colonisations, trade, immigration and such traditional means but rather, in an era of globalisation, interaction between them is accelerated more than ever before mainly thanks to the new means of transportation as well as of communication. Furthermore, the Algerian sociolinguistic profile is also the outcome of the interaction between several internal factors; social, economic, political, geographical, psychological, etc. In other words, the Algerian linguistic behaviours reflect the complexity of the social structures and a better understanding of the case implies taking into account every single factor and outcome.

Accordingly, the chapter attempts to provide an overview of the linguistic situation in Algeria and the factors that led to the existence of the different languages, varieties as well as the different linguistic practices and usages. This is so crucial as a starting point, for it serves the main research aim. Hence, this constitutes the platform on which the following chapters stand because an understanding of the sociolinguistic profile within the digital environments of communication is not possible without referring to the offline sociolinguistic framework. Therefore, the chapter begins with a historical background of the linguistic diversity in Algeria. Then, selected outcomes are to be synthesised and interpreted beginning with the different languages and linguistic varieties, moving to the consequences of language contact such as diglossia, bilingualism, code-switching, and linguistic borrowing.

1.2. Historical Background of Linguistic Diversity in Algeria

It is necessary for a reliable description of the languages and varieties used by the Algerians to trace back their historical background, especially that some words that are rooted in the current Algerian linguistic manifestations are of ancient origins that stretch back to the far past. Loan words from French, Spanish, Turkish, English, and others constitute part of some Algerian regional dialects. Algeria in addition to the other North African countries are situated in an area that has attracted the attention of foreign invaders due to their strategic ports, interesting trade gates, fertile lands, and raw materials. They stimulated scramble for their resources and settlements of different civilisations since pre-historic periods. Geographically

speaking, North Africa constitutes a bridge that links not only between Europe and the sub-Saharan territories, but also between the Americas and the Far East.

The Berbers ⁽¹⁾ are said to be the indigenous people of North Africa ⁽²⁾, yet little is known about their pre-history and origins (Chebchoub, 1985; Aitsiselmi & Marley, 2008). It is not yet clear from where they arrived exactly. Some believe that they came from Eastern Africa or farther, others believe that they arrived from Europe, whereas others estimate that they are descendants of mixing successive pre-historic migrations from Europe and Asia (ibid). Anthropologically speaking, these indigenous peoples share the same physical features of the Mediterranean subgroup of southern Europe, i.e. they are of Caucasian origins and do not belong to the negroid ethnic group ⁽³⁾ (Chebchoub, 1985). The Berbers could preserve their cultures, languages, and national identity despite the different invasions and occupations by foreign conquerors since antiquity; the Phoenicians, the Romans, the Vandals, the Byzantines, the Arabs, the Ottoman Turks, and recently the Portuguese, the Spanish, and the French.

The First civilisation that occupied the area was the Phoenician, an ancient Semitic group. As far as language contact is concerned, Punic seems to have little influence on Berber, if compared to other languages. According to Benabdi (1980), this might be due to three main factors. First, contact between them was limited to commerce, military, and feudal relations. Second, the impact of Arabic in the Eastern part of North Africa (the centre of the Phoenician civilisation/ Carthage) in the eleventh century was intensive and could replace the traces of Punic. Finally, since both Punic and Arabic are genealogically affiliated to Semitic, some loans into Berber from the former may have been incorrectly attributed to the latter.

Punic-Berber bilingualism later was replaced by Latin-Berber bilingualism after the Roman conquest to North Africa. Like Punic, Latin traces in Berber are very few. Latin was adopted and was used mainly in towns whereas Berber was used in rural areas by the nomads and the peasants. After 500 years of occupation, the Romans were defeated by the Vandals, who were defeated in turn in 533 AD by the Byzantine rulers, who wanted to revive the Roman Empire.

During these occupations, the Berbers were displaced from the most fertile lands and found refuge in the isolated areas like the mountains and the Sahara. This has enabled them to preserve their identity intact from eradication and absorption into others' cultures. In fact, they still occupy these isolated areas, otherwise nothing could have been left from these indigenous civilisations whose history stretches back to times immemorial.

The most important period in the history of North Africa is coined with the coming of the Arabs to the area in 670 AD ⁽⁴⁾. The Arab conquest was a turning point in the life of the Berber people. A new religion, culture, language, civilisation, and a new way of life were introduced so that all North African countries today are referred to, mainly, as the Arab-Muslim World. The Arab-Muslim expansion to North Africa is divided into two major periods. The first one was mainly in the seventh century AD while the second began since the *Banu Hillal* invasion in the eleventh century.

The former is primarily characterised by Islamisation rather than Arabisation. In this period, all North Africa together with Spain became under the Arab influence (Aitsiselmi & Marley, 2008). Yet, the influence was more religious than linguistic except in *Qayrawan* and *Andalusia*, where Arabic was the dominant language in administration, learning, science, religion, etc., as these two areas were vessels of the Islamic civilisation ⁽⁵⁾. Hence, the Berber communities were still constituting the majority and their language remained the vehicle of communication and was used also in official domains; documents were composed in Berber using the Arabic script (Benabdi, 1980). In other words, the people were either monolingual speakers of Berber or bilinguals.

The second phase of the conquest in the eleventh century, however, reshaped the cultural boundaries of the area and linguistic Arabisation was profound ⁽⁶⁾. The Arabic language replaced Berber ⁽⁷⁾, which persisted in North Africa since millennia, except in the mountainous areas like the Kabylia, Aures, and the Sahara where the Berbers could preserve their language from the spread of Arabic. In fact, the Berber people in North Africa, mainly in Algeria and Morocco, still occupy these isolated and mountainous areas where they could preserve their identity, language, and culture whereas the others who remained in towns were completely Arabised.

In addition to the Arabic language, Spanish was also introduced to North Africa mainly after its Islamisation. Spanish Muslims migrated from Andalusia to settle in Maghreb coastal towns even before the fall of Granada in 1492. When the Catholic kings reconquered Spain for the church, their interest in North Africa began. So, the Spaniards started migrating towards the Maghreb coast aiming to spread and control mainly Algeria. As a response, the Algerian ruling power called for the Ottoman protection.

As for language contact during the Ottoman ruling era, Turkish had little influence on the languages of its protectorates, if compared to Arabic or French. Turkish, today, is not widely present in Algeria nor in Tunisia, though they were parts of the Ottoman Empire for three

centuries (1516-1830). It should be noted in this respect that the Turks remained a separate and a foreign group in Algeria and were not assimilated into the natives. Therefore, language contact was not so frequent that might leave behind long-lasting consequences, unlike their successors who strived to erase the Algerian linguistic and cultural identity.

The various linguistic policies implemented by the French in Algeria during the 132 years of colonisation were enough to transfer the people's linguistic behaviours. Algeria was the most important French colony due to its large size. For that reason, their policies were designed to make of it an extension of France and it was often named by the colonisers '*L'Algérie Française*'. This, in fact, what explains the involvement of the French not only in the political and the economic affairs but they also imposed their social and linguistic control ⁽⁸⁾ upon the Algerians. Hence, those colonial cultural policies aimed at the distraction of the Algerian civilizational specificity to dominate the people after denying their Algerianity. After independence, in 1962, the ruling power tried to reconstruct the Algerian identity. Among the measures used was the implementation of an assimilationist language planning, known in the literature as the Arabisation policy.

1.3. Arabisation Policy and Language Planning

In addition to the aforementioned geographical and historical factors, language planning and policies implemented in the post-independence era have had profound impact on the current sociolinguistic landscape of the country. In this respect, language planning can be defined as "*a future-oriented intervention in language which aims to influence language and language use*" (Rubin and Jurnudd, 1971 cited in Daoust, 1997: 438), i.e. a deliberate language change in linguistic behaviour will result in the long run after the implementation of a language policy. Indeed, the linguistic situation of Algeria today, in the first half of the twenty-first century, is so different from the situation in the mid of the twentieth century (since the implementation of Arabisation). The policy of Arabisation was mainly oriented by specific ideologies.

1.3.1. Language Ideologies and Orientations

The linguistic and the cultural issues of the country were amongst the most important concerns of the rulers since independence and attracted much of their attention because language as well as its correlations with culture constitute the landmark of the country's national identity. As a result of the discriminatory and assimilationist policies of the French during colonisation, Arabic was almost displaced from the most important and prestigious domains and its status as the vehicle of communication was challenged by French. Consequently, the

Algerian regime believed that language planning is an urgent activity to restore the ‘authentic identity’ of the country. This was coupled with the ideology that the unification of a country is guaranteed only by the adoption of a single language as the sole official language. That is, multilingualism was perceived as a threat to unity. In this sense, Baldauf & Kaplan (2004: 6) believe that “... *such ideologies emerge out of a wider socio-political and historical framework of relationships of power, of forms of discrimination, and of nation building*”. In other words, language ideologies are context-dependent, not universal, and are dictated by specific socio-political circumstances.

Accordingly, language planning is not purely a linguistic activity, for it incorporates an interplay of various factors. Cooper (1989) believes that language planning is mainly a political and administrative as well as linguistic activity used for solving language problems in society. In addition, Haugen (1966: 52) states that “*LP is called for whenever there are language problems. If a linguistic situation for any reason is felt unsatisfactory, there is a room for a program of LP*”. In the case of Algeria after independence, the ruling power believed that a solution must be provided for such a linguistic situation, where the language of national and cultural identity was marginalised by the colonisers and the recognition of French, Berber, and Colloquial Arabic may lead to division.

This assumption, in fact, indicates the government’s orientation towards language planning because “*basic orientations toward language and its role in society influence the nature of language planning efforts in any particular context*” (Ruiz, 1984: 15). Indeed, multilingualism is perceived differently in different contexts. It can be viewed as a problem, a resource, or a right and the kind of language planning chosen is dictated by these orientations (ibid). In other words, post-independence language planning was based on the idea that nation-building requires the official recognition of only one language, for it guarantees the country’s unification.

1.3.2. Nation-Building and Language Planning

An assimilationist language planning was chosen as a model in the process of nation-building by the Algerian leaders (Benrabah, 2004). This model aimed at homogenising most community members, who were expected to share similar linguistic practices through learning and speaking the same language. This policy, initiated by President Ben Bella (1962-1965), overlooked the multilingual character of the country and promoted Standard Arabic at the expense of the other widely spoken linguistic varieties (Roberts, 2003 quoted in Benrabah,

2007a), namely Dialectal Arabic, Berber, and French. Linguistically speaking, Arabisation consisted mainly of replacing a foreign language, French, with another one considered as a national language, Classical Arabic (Grandguillaume, 1991).

Overwhelmed with problems inherited after the departure of the French, policy makers in the Ben Bella years did not put forward a clear plan to Arabise the nation. It was only until the presidency of Houari Boumedienne (1965-1978) that sharply-defined policies were determined, as part of the three-part revolution - industrial, agrarian, and cultural – (Benabdi, 1980). After having been installed as the sole official and national language of the country (status planning) and modernised (corpus planning), nearly all the domains started to be gradually Arabised including administration, education (acquisition planning), justice, the army, mass media, and to a lesser extent health service (ibid). This trend, according to the government, guarantees not only the spread of the official language to all the domains and communities, but also guarantees the unity of the country.

It is worth mentioning, however, that the policy has been implemented in spite of all the costs, difficulties encountered, and the obstacles. Arabization was rushed and poorly planned, and its implementation did not take into account the complex linguistic and cultural realities of the country. This policy was implemented though competence in Standard Arabic was extremely limited, the rates of illiteracy were high, the personnel and school materials were not sufficient, French was installed as the only language for modernity, sciences, technology, and development (Benabdi, 1980; Sayahi, 2014; Bekkai, 2014-2015; Benoussat, nd.).

Consequently, *“the hegemony of linguistic Arabisation has led to resistance and to the maintenance of languages that were targeted by Arabisation”* (Benrabah, 2007b: 227). In this sense, the main reason behind the failure of this plan lies in the fact that in the surface its goals were social and cultural and sought economic promotion, yet its core was political because *“this policy aims at providing the regime with political legitimacy, and serves as a means of social control”* (Benrabah, 2004: 59). Hence, the political tendencies of Arabisation led to dramatic consequences that can be inferred today from the people’s linguistic practices and cultural manifestations.

1.3.3. Consequences of Arabisation

Since the 2000s, the drawbacks of Arabisation became salient and the monolingual educational system started to be questioned and became a subject of considerable debate. In fact, policy makers misrepresented the relationship between languages (Benrabah, 2007a;

2014), since they were included in education as rivals whereas people prefer additive rather than subtractive bilingualism (Benrabah, 2007a). Moreover, while the primary goal of Arabisation was to discard French, the consequence, ironically, was the reverse. French after independence has spread in unprecedented way, more than during colonialism, due to several factors mainly urbanisation and the universalisation of education (ibid).

Nevertheless, Arabisation is said to be one of the factors, among others, behind the failure of the educational system in Algeria. In addition, Bekkai (2014-2015) believes that it has created bilingual illiterates who are competent neither in Arabic nor in French. Moreover, according to Fuller (1996) Arabisation, created a generation gap between the French-speaking (Francophones) and the Arabic-speaking (Arabophones) communities, on the one hand. On the other hand, class and cultural discrimination became salient because the former social group was privileged over the latter in all domains of life especially that they have better chances for employment since the job market, either in public or private sectors, requires French. Last but not least, Benrabah (2007a: 209) argues that,

Arabisation, inspired by the outdated nationalistic European model based on a monolingual state and linguistic homogenisation, has shown its limits. It has even proved to be self-distractive and dangerous to the process of nation-building, as the civil war of the 1990s clearly showed. That was partly due to linguistic and cultural conflicts generated by Arabisation and described by some authors as 'cultural civil war' or linguistic 'intellectual cleansing'.

In other words, instead of contributing to the process of nation-building, Arabisation led to dramatic conflicts in the last decade of the twentieth century. That was mainly due to the fact that the policy of Arabisation was an adoption of an outdated model which did not fit the context of the newly-independent Algeria.

Hence, the assimilationist language planning did not take into account the complex nature of the country's sociolinguistic situation and failed to absorb the targeted communities. Recently, however, an openness towards multilingualism started to be expressed in the policies of the government as languages are often encouraged in the educational system namely French, English, Berber, Spanish, and German, in addition to other languages which have been integrated at the university level such as Turkish and Chinese.

1.4. Languages Used in Algeria

Due to its strategic location, Algeria became a host of many civilisations since ancient times and their languages have been installed in the country's linguistic profile. Hence, several languages are used today, in addition to the thousands of loan words and expressions inserted in the local languages, without forgetting also the different forms and consequences of language contact. Four major languages (Berber, Arabic, French, and English), their circumstances, variations, etc. are to be explained below.

1.4.1. Berber

Berber belongs to an Afro-Asiatic language family. It constitutes today a kind of islands surrounded by other languages especially Arabic in the vast geographical areas of North Africa in addition to several other sub-Saharan African languages. Morocco and Algeria capture the highest rates of Berber inhabitants and they constitute about 45% and 25% of the countries' total population respectively. Berber varieties in Algeria were distributed mainly across the mountains of the central, the eastern, and the southern areas constituting six major groups speaking different dialects; Chaouia, Kabyles, Mozabits, Tuaregs (Metz, 1993), Tachnauits, and Zenata (see appendix 29). It is also spoken by Berbers who live in different regions throughout the country, especially in large cities like Algiers, yet the aforementioned communities are the largest and the most distinguishable.

Due to the assimilationist language planning of the Algerian government after independence, the official recognition of Berber took fifty-four years after independence to be declared, after the constitutional amendment in 2016, as a legitimate official language of the country alongside Arabic. This in fact has been preceded by gradual improvements of its status as a result of the Berber revival movements which were taking place inside and outside the country, mainly in France. It was only by the beginning of the 1990s onwards that the Berbers started gaining their linguistic rights.

For instance, in 1990 and 1991 departments of Amazigh language and culture were established in Tizi Ouzou and Bejaia (Kabylia region). Berber was included, then, in primary schools in 1994 (Al Aissati, 2001) and as an optional subject in middle schools in 1995 (Chaker, nd.; Sayahi, 2014). This, however, was implemented only in the Berber-speaking regions and did not include the areas where Berber is not the majority's mother tongue. In addition to these educational trends, in 2002 Berber was stated in the constitution as a national language, with Arabic as a national and the only official language (Chaker, nd.). Thus, the gradual official

recognition of Berber proves once again its resistance against all factors of eradication since it has been maintained since ancient times.

1.4.1.1. Language Maintenance and Contact Situations

Berber language and culture have survived for thousands of years and it is one of the oldest living languages. Two major factors that led to the maintenance of Berber can be figured out. First, the Berber people sought refuge in the most mountainous and isolated areas since the ancient external invasions of their lands to preserve their language and culture from erosion especially since the middle ages. The second important factor is the Berbers' sense of ethnic identity as they perceive themselves as a separate group and the loss of their linguistic and cultural practices means accordingly the loss of their ethnic speciality and identity. For that reason, they always strive to keep intact from the other co-existing groups; they do not prefer intermarriage and they transmit their language and culture to their children. Yet, this is not the case in the cotemporary period especially since the 20th century because of urbanisation, immigration, public schooling, the global spread of mass media, and technology (Al Aissati, 2001; Sayahi, 2014).

Recently, because of urbanisation, Berber leaves-behind its historical isolationism and lives hand in hand with Arabic in continuous contact situations. Therefore, several other sociolinguistic phenomena contribute to intensify the complexity of the Berber state, such as the stagnation of monolingual Berber population and the growth of Berber-Arabic bilingualism, in addition to the growth of the emergent generations who might be competent in Arabic more than in Berber, unlike their parents (Ennaji, 2005). This also leads to a steady shift towards the use of languages of wider communication. Moreover, the urban varieties of Berber, which have been adapted to meet the new social contexts and characterised mainly by heavy linguistic borrowings and interference, will develop paving the ground for language change and the reduction of intelligibility amongst Berber-speaking communities living in distant regions ⁽⁹⁾.

As for its relation with the co-existing languages namely Standard Arabic, French, and Algerian Arabic, Ennaji (2005: 78) believes:

... Berber does not compete with French because the latter is reserved to domains of use such as universal culture, science, technology, and modernity. Thus, unlike what is often suggested, Berber is not in conflict with other languages like Standard Arabic and French, because they have complementary sociolinguistic functions.

Thus, the adoption of Standard or Classical Arabic as the official language of the country does not in any way jeopardise Berber language and culture.

That is, in addition to the fact that Berber has been traditionally excluded from administration, schools, courts, technology, scientific fields, etc., it is also losing ground in favour of Algerian Arabic in informal settings like family, street, and markets. In other words, Berber is in a constant competition with Algerian Arabic because they share the same domains and functions. Whereas it is in a diglossic relationship with both of Standard Arabic and French because they are in a complementary distribution (Marley, 2003; Ennaji, 2005), since it is not yet completely standardised though it has been declared as an official language alongside Arabic.

1.4.1.2. Dilemma of Standard Berber

The most important obstacle that hindered the codification and the standardisation of Berber is now removed. Yet, though it has been granted an ‘official’ status alongside Arabic, two other problems still constrain the standardisation process. First, it is still used almost only for spoken purposes except in informal situations like text-based online communication, scripts of theatre, etc. Second, Berber is not yet fully codified or standardized and it is still represented in three optional scripts (Tifinagh, Arabic, and Latin) depending on the user’s affinity (Al Aissati, 2001; Sayahi, 2014; Ennaji, 2005). In fact, the dilemma of which orthographic system to use is “*tied to ideological and political orientations*” (Ennaji, 2005: 93). For that reason, there is still a constant debate on the script that should be selected for the codification. Berber has never been formally a written language. However, it has been informally codified in Arabic since the middle ages and in French since the 20th century, for religious and colonial purposes respectively (Ennaji, 2005). The indigenous script of Berber, Tifinagh (Metz, 1993; Marley, 2003) which is over 2000 years old, is used by Algerian Berbers sporadically as they either use Arabic or Latin script except for the use of some symbols to indicate their ethnic belonging.

Once status and corpus planning steps are finished, the language will be ready to be used and spread into various formal domains, and this depends mainly on governmental willingness. Indeed, it is not yet clear when it will be used for functions like the language of instruction in education, in universities, scientific fields such as medicines and architecture, official documents and books, law courts, the press, etc. In other words, standardisation will be accomplished when it will be codified and used for these prestigious domains. This will ensure the maintenance of Berber for several other centuries and the threat of language shift will be reversed.

1.4.2. Arabic

Owens (2006: 01) believes that “*Arabic has always been a puzzle to those who delve into its intricacies*”, as it has fascinated not only its native speakers but even western scholars were and are still interested to uncover its *secrets*. Arabic is coined with Islam and it is highly valued by its speakers due to its importance as the language of revelation and of the Holy Book, Qur'an. It is spoken in a wide range of geographical areas because it has spread with the spread of religion, they went hand in hand. The language today is considered as one of the world languages. It is the majority's mother tongue in the Middle East and North Africa (MENA), estimates indicate that it is spoken as a mother tongue by more than 350 million who are distributed among the twenty-five countries (the so-called the Arab World) in addition to the Arab immigrants throughout the diaspora. It is also a second language in a considerable number of non-Arab countries which have Muslim communities like Malaysia, Indonesia, Pakistan, Iran, Turkey, etc.

Three factors play a central role in shaping contemporary development of the Arabic language; twentieth-century European colonialism, Pan-Arabism, and the new communication media. As a consequence, Standard Arabic was reduced to few domains like literature, education, administration, and religion, while the modern vernaculars developed independently with heavy linguistic borrowings from European languages. However, these formerly spoken-only dialects are widely used in written domains for the first time in their history due to the widespread use of the new communication media. Accordingly, three main varieties of the Arabic language can be distinguished in the actual use of the MENA area, Classical Arabic, Modern Standard Arabic (MSA), and Colloquial Arabic. Actually, they are arranged in a continuum starting from the most standard and prestigious variety that is correlated mainly with Islam and the Holy Book, to the varieties used in the most informal situations. This classification is not purely linguistic but it is rather the outcome of social, cultural, and political factors (Ennaji, 2005).

1.4.2.1. Classical Arabic

Classical Arabic, as the name implies, is the oldest still-living variety of Arabic that dates back to, at least, the sixth century AD. It has developed from the Bedouin dialects spoken in the Arabian Peninsula (Sayahi, 2014), these dialects were prestigious since they symbolised authentic speech forms. It is often equated with the pre-Islamic poetic Koiné (Owens, 2006) that has been crystallised later as the language of Qur'an. A standard written version of Classical

Arabic was provided after the advent of Islam thanks to the early grammarians who were interested in the codification of the language.

The most important names that Arabic owes to their early contribution are Abu al-Aswad al-Du'ali, Al Farahidi, and Sibawaih. Abu al-Aswad al-Du'ali developed the Arabic diacritic system in the seventh century relying on scientific methods that based on observation and objectivity. Al Farahidi was a precursor in the Arabic and Islamic civilisation with the first dictionary ever written in Arabic in the eighth century. Last but not least, Sibawaih wrote the first grammar book (*Al Kitab / The Book*) in Arabic in the eighth century. In fact, it is thanks to these first grammarians, and others, who provided detailed description and explanation of the structures of the classical language in order to maintain it and make sure that its spread is adequate for the sake of preserving the original meanings of Qur'an.

Yet, in spite of all the efforts of the early grammarians to standardize Arabic, language change was inevitable and both the spoken as well as the written forms were affected. Hence, due to its spread, several varieties emerged through time leading gradually to the stagnation of Classical Arabic. Rabin (1955 quoted in Amer, et al. 2011: 21) believes that; "*Classical Arabic has ceased to be a spoken variety and had become a purely literary medium by the end of the Umayyad Caliphate in 750 AD*". In other words, Classical Arabic was the last phase of the development of Old Arabic varieties (Owens, 2006).

Accordingly, Classical Arabic is still used exclusively for the most literary domains. It is a learnt language used mainly for such purposes like prayers, religious ceremonies, and it is taught in schools mainly to students of Arabic, Arabic literature, and religion (Ennaji, 2005; Amer, et al. 2011). In fact, the importance of Classical Arabic is sociocultural as it symbolises religion because it is no one's mother tongue. Even educated people have a passive knowledge in it because they understand it but they have problems in the productive skills, in the sense that speaking and writing it cannot be free from pronunciation and grammar mistakes (Ennaji, 2005).

Thus, the spread of Arabic, due to Islamic expansionism, marked the endpoint of Classical Arabic as a spoken variety and the emergence of Middle Arabic alongside other distinctive spoken dialects as a result of dialect mixing and interference with non-Arab languages of the local inhabitants, like Berber in North Africa and Coptic in Egypt (Miller & Caubet, 2010). In addition, Arabic has also been deeply affected by the European invasions to the MENA region in the nineteenth and the twentieth centuries because their linguistic traces are deeply rooted in the Arabic vernaculars. Besides, the Arabic dialects and the colonial languages in this area were

developing while Classical Arabic was losing its ground, and, therefore, it ceased to develop a vocabulary that copes with the current changes. Yet, with the rise of Pan-Arabism, Classical Arabic was modernised.

1.4.2.2. Modern Standard Arabic

It is crucial, in this respect, to explain the concept of standard language to see whether or not the modernised version of Arabic fits the status of a standard variety. It should be mentioned, however, that there is no universal agreement on what a standard language and the process of standardisation mean exactly *“due, maybe, to the highly complex nature and distribution of linguistic varieties and national and minority issues [...]”* (Mejdell, 2006: 05); in addition to the various language planning policies implemented by centralised authoritarian governments (ibid).

i. Defining a Standard Variety

Indeed, there were steady developments in the definitions of the concept in question. The first definitions were based mainly on the codified form of the variety which is selected, accepted, and used as a model by the members of the speech community. Recent definitions, however, started to shed light on the functions employed by this variety and its cultural dimensions (Garvin, 1964; 1993 quoted in Mejdell, 2006). In other words, once the chosen variety is codified, it will be distributed to several social and cultural domains to fulfil the different communicative needs of its speech community *“that has either achieved modernisation or has the desire of achieving it”* (Mejdell, 2006: 06). Subsequent definitions emphasise on another important angle that is incorporated in the selection of a variety to be codified for general social and cultural functions, as it is often the prestigious linguistic form used by a social or an educated elite. So, the variety chosen for standardisation is:

[The] socially favoured variety of a language, often based on the speech of the educated population in and around the cultural and/or political centre of the language community. Such standard dialects are imitated and used as auxiliary language by speakers of other regional and social dialects for the purpose of formal discourse and writing as well as for teaching the language to foreigners (The linguistic dictionary of Hartmann and Stork, 1976 [1772]).

In other words, the choice of a variety for the process of standardisation is often associated with prestige as it is mostly used by the elites, an important social group in the country. This

prestigious variety will be imitated by other groups who do not speak it as a mother tongue for many utilitarian functions, mainly formal discourse.

Accordingly, Haugen (1966) put forward four main processes that a variety must have passed through to reach the standard status. First, selection of a linguistic form, which is often the most prestigious among the many other coexisting varieties. Second, acceptance by the members of the speech community due to the fact that it is associated with the prestigious social group. The variety, then, will be subject to the process of codification including all linguistic levels: phonetics, phonology, morphology, and syntax. Finally, once the grammatical forms are codified, the variety will be ready to serve different social and cultural functions, such as education, bureaucratic documents, law courts, written purposes, government and parliament affairs, etc. These processes need to be examined in relevance to the standardisation (modernisation) of Arabic to check the extent to which it has been compatible with the conventional definitions of a standard language. To begin with, it is important to see what paved the way for the modernisation of Arabic.

ii. Arab Renaissance and the Standardisation of Arabic

The Arab nations witnessed growing trends for modernisation in the nineteenth and early twentieth centuries because they suffered political and cultural decline for a long time, during the Ottoman rule and the European colonisations later. Though the Former maintained the use of Arabic, especially for religious purposes since they were Muslims too, it was not the predominant language since it was used alongside other foreign languages, mainly Turkish, for domains like education and administration. The French, however, implemented various policies in favour of their language at the expense of Arabic, this is at least as far as the French colonial system in North Africa is concerned because the British policies in the Middle East were different. During these external invasions of MENA region, Arabic was displaced from various domains and was confined to the few religious purposes like prayers, recitation of Qur'an and Hadith, etc. Hence, Arabic ceased to be used in various sensitive social functions and led, accordingly, to the stagnation of its linguistic features.

Therefore, modernisation in the Arab world began when the Arabs realised the profound state of cultural decline and the stagnation of Arabic. That is, the growing awareness in the Arab nations led to the birth of a cultural movement by the end of the nineteenth century and the beginning of the twentieth century (Mejdell, 2006; Sayahi, 2014). The Arab Renaissance (*nahda*) was launched by several thinkers and intellectuals who were inspired mainly by the European enlightenment but they were attached, as well, to the cultural heritage of Arabic-

Islamic Golden Age. In fact, this period was flourishing in terms of the development of several writing genres, such as novels, short stories, essays, etc., mainly as a result of the spread of printing, press, translation, language academies, libraries, education, and contact with the west. Consequently, Arabic was influenced in two ways: first, it started to be used for more domains not just as a language of religion; second, the Arabic structures and vocabulary were changing because they were adapted to suit the new domains of use. Thus, it is also crucial to shed light on the major factors that urged the modernisation of Arabic that changed the course of its history.

iii. Main Factors of the Modernisation of Arabic

In fact, the emergence of the Arabic-speaking press was a turning point in the history of the development of the Arabic language, not only because it facilitated the spread of the intellectuals' writings to reach more populations but it also enabled the use of Arabic for several practical and secular purposes. This has led to the urgent need to modernise the Arabic language, which lacked adequate vocabulary for these new usages especially that, on the one hand, the spoken Arabic dialects were not prestigious and were considered as deviations from the language of Qur'an. On the other hand, the poetic, complex, and archaic nature of Classical Arabic do not fit the purposes of the press, which was typically designed to depict reality and to address common people who had passive competence in Classical Arabic.

Hence, these journalists, writers, translators, and scientists opened the way for new styles of writing and innovative coinage of vocabulary for the new concepts to seep gradually into Arabic. This has been, especially, reinforced by several factors. For instance, those newspapers were often run by western-oriented intellectuals who were mainly bilinguals and contributed to language change via transferring new terms and syntactic structures to Arabic (Abdulaziz, 1986 cited in Aramouni, 2011) in addition to the increased translations of European written material into Arabic, which also influenced the Arabic language (Mejdell, 2006; Sayahi, 2014). Hence, these are, in brief, the most important factors that paved the way for the emergence of a modernised and a simplified version of Arabic. Yet, it was not completed until the implementation of the Arabisation policy (see item 1.3 above) in the post-independence era; especially that state-building, according to this policy, requires the adoption of a language that symbolises its independence and national identity.

Thus, Arabic was first modernised by these reformists and intellectuals who put the language to work in new domains. In other words, it was thanks to these individual language users that Arabic was revived and used for purposes other than religious and its beginning was

not a regulated process launched by specialised language institutions and academies. This emerging modernised version started to be used for several new prestigious domains and it spread to more populations. With the rise of Pan-Arabism and the liberation of the MENA region, Arabic was declared as the official language in all these countries. The impact of Arabisation was profound not only at the linguistic level but even the social, cultural, economic, and political aspects were affected. MSA then acquired more prestigious domains such as administrations, education, media, etc. while the spoken Arabic dialects, Berber, French (in North Africa), and English (in the Middle East) have been given no, or little, official status though they constitute undeniable portions of the sociolinguistic landscape of the region. However, in spite of the fact that SA enjoys an official status, people's attitudes towards it differ considerably.

iv. Prestige and People's Attitudes

The spread of MSA to the above-mentioned high domains have contributed to the preservation of Arabic as a classical case of diglossia since this variety is used alongside the vernacular varieties, which are restricted to low domains. In fact, the implementation of Arabisation resulted in paradoxical situations. On the one hand, MSA is the High variety as it unifies the Arab nation and serves as the transnational standard for their Islamic and cultural identity, in addition to its use in high domains like administration and education. On the other hand, the majority of the population have passive competence in it since it is no one's mother tongue and there is a sense of rejection and students' no interest in the Arabic language and literature. This rejection, according to Diem (1974 quoted in Mejdell, 2006: 19-18), is due to the inadequate teaching methods and the Arabs' sense of the inferiority of their contemporary Arabic civilisation if compared to the Western civilisation. For that reason, parents often prefer to teach their children a European language rather than, or in addition to, SA.

Yet, the 'inferiority complex'-based explanation failed to take into account the political, the economic and the cultural context of the MENA region in the post-colonial era. Parents teach their children foreign languages not because Arabic is inferior but due to the fact that European languages are vehicles to access the global market, social mobility, and prosperity (Mejdell, 2006). Hence, this paradox, related to the prestige of this modernised version of Arabic, made its acceptance problematic especially that it also coexists with other varieties, which have been neglected when MSA was declared as the only official language.

v. Restricted Poly-Functionality

Since MSA is declared as the official language and was distributed to all prestigious domains that require a written form, it was supposed to spread and become the mother tongue of the second generation. This, however, has never come true because there is no evidence that this modernised version is used as the spoken medium, even in the formal situations people use an elevated form of the spoken dialects (Mejdell, 2006), referred to as Middle Arabic or Educated Spoken Arabic (ESA). Though MSA is protected because of codification, the spoken varieties displace it from its functions, and this has been intensified mainly after the spread of the audio-visual popular culture (ibid) and the use of the Social Networking Sites for text-based interpersonal interaction.

The fact that MSA is restricted just to the most formal purposes is explained by two main factors. First, the codification of Arabic was rigid (Haugen, 1966) because the language academies tended to purify it from spoken or foreign linguistic interference, preventing it from any kind of flexibility and the possibility to represent contemporary linguistic manifestations of its speakers. Second, there is a world-wide preference for oral styles and a tendency towards the marginalisation of formal registers due to “[...] ongoing social processes of lessening of authority, breaking up of rigid social hierarchy [...] In language use as social interaction, this is expressed through less formal registers, registers that signal equality, not distance” (Mejdell, 2006: 44). So, the standardisation of Arabic failed to reflect the socio-cultural context.

In a nutshell, this modernised variety of Arabic can hardly be attested as a typical standard variety because it lacks defining features that are required for the process of standardisation. Though it has been selected during the period of modernisation (Arab renaissance/*nahda*) and codified to serve various domains, it has never reached the poly functionality of a standard language, i. e. it is restricted to the most formal usages. In addition, it is no one’s mother tongue and few people seem to accept it as the only language used for official domains. Thus, the Arabisation policy failed to change the multilingual and the multicultural nature of the MENA region. Colloquial Arabic is still taking the lion’s share of the spoken varieties alongside the indigenous varieties like Berber, in addition to the European languages, which are deeply rooted in the peoples’ linguistic practices. Classical Arabic is still considered as the language of Qur’an and Hadith despite the trends of modernising and simplifying it.

vi. Towards Defining MSA

Consequently, MSA is a simplified and a modernised version of Classical Arabic. It is not based, however, on any social group's ordinary spoken variety, in the sense that it is genetically related but diverges from the Arabic vernaculars (Majdell, 2006). Hence, the related literature indicate that there is no agreement on what constitutes MSA (Stadlbauer, 2010). Since MSA incorporates features from Classical Arabic, Colloquial Arabic, and foreign languages, researchers' opinions diverge on the extent to which it deviates from and includes linguistic elements such as vocabulary, phonology, or syntax from these varieties (Van Mol, 2003). In addition, the structures of MSA show regional differentiation because of the large influence of the spoken dialects on its construction. In fact, *"it is not (yet) clear in what respect these regional varieties of MSA exactly differ from each other and to what extent they differ as a group from their common origin, Classical Arabic"* (Ditters, 1992: 5 quoted in Van Mol, 2003: 4). In other words, the standardisation of Arabic intensified the gap between Classical Arabic and its modernised version, on the one hand, and developed differently in the different regions, on the other.

Due to the complex nature of the relation between the different Arabic varieties as well as the ambiguity associated with stating a clear-cut separating one from the other, researchers categorised them into immediate language levels (ibid). Parkinson (1991), however, is interested in how people perceive it rather than categorising its levels. People's perceptions of language are manifestations of their language ideologies, such as pan-Arabism or linguistic purity (Stadlbauer, 2010). In other words, these ideologies related to language do not strictly derive from linguistic features but they link the language to its people and their cultural as well as historical contexts (ibid). That's why SA is often associated with cultural identity more than colloquial Arabic by its native speakers.

1.4.2.3. Colloquial Arabic

The Arabic language is spoken as a mother tongue in a wide range of geographical areas that cover almost all North African coast and stretches south to the sub-Saharan territories in addition to some parts of west Asia. Accordingly, the varieties of Arabic are as numerous as the various variables that shape the language in this huge size since ancient times, at least since the sixth century AD. In fact, variations of Arabic today are the outcome of historical, cultural, political, economic, geographical, and social factors.

Versteegh (1997) classifies the Arabic dialects into five major groups; the dialects spoken in the Arabian Peninsula, Mesopotamian, Syrio-Lebanese, Egyptian, and the Maghrebi dialects. These groups of dialects show significant differences at all linguistic levels to the extent of unintelligibility in many cases due mainly to geographical distance as well as historical reasons since these dialects have been developing independently. In case of unintelligibility while communicating across dialect boundaries, speakers often use various strategies to overcome the problem, for instance they use resources from MSA (Aramouni, 2011). In fact, the latter is used as a lingua franca amongst the speakers of the different Arabic dialects. Interestingly, despite the fact that Colloquial Arabic is the mother tongue of the Arabophones and that it is recently widely used in informal written domains alongside the informal spoken usages, no spoken Arabic dialect has been standardised or officially recognised.

The Maghrebi dialects, spoken in North Africa, exhibit considerable differences from the other ones of the Middle East. This is mainly due to three factors (Sayahi, 2014). First, the way Arabic was introduced to and spread in North Africa. Second, Arabic in this area witnessed intensive contact with indigenous languages as well as other foreign languages. Third, since the mid of the twentieth century, the Maghreb region has undergone rapid social changes and massive urbanisation. A typical case of these dialects is the one spoken in Algeria that entails, in turn, many regional variations throughout the vast and distant parts of the country.

In spite of the significant and easily observable local variants in pronunciation, vocabulary, and grammar across the different regional dialects of Algerian Arabic, they are still largely mutually intelligible. Taleb Ibrahimi (2004: 207-208) classifies them into four broad groups of dialects: 1) in the east around Constantine, 2) in the centre that include Algiers and its surroundings, 3) in the west including Oran and other areas, and 4) southern groups of dialects that stretch south from Saharan Atlas to the frontiers of Hoggar; with each involving both urban and rural types. Algerian Arabic is the mother tongue of the majority of the Algerians and it is a vehicle of their cultural identity. It is mainly used in informal domains like family and street discussions, folklore manifestations, proverbs, songs, etc. Therefore, it has never been officially codified and it is traditionally preserved for oral usages. Yet, with the advent and proliferation of communication technologies, mainly text-based media, Algerian Arabic, alongside many non-standard varieties, started to be used in written domains.

Accordingly, Algerian Arabic shares complementary roles with SA since the former is reduced to informal usages, while the latter dominates high domains like education and administration. However, Algerian Arabic is seeping gradually to domains which have been

traditionally reserved for the codified version like TV and written communication. Besides, elements borrowed from SA are also widely used in every day conversations as a result of Arabisation. In addition to domains of use, Algerian Arabic bears great differences from SA at all linguistic levels (phonology, morphology, syntax, and semantics), though its vocabulary is basically Arabic with adapting it into local communication needs in addition to significant Berber substrates as well as many linguistic borrowings from languages like French, English, Spanish, Italian, Turkish, among others, throughout the different stages of the historical developments of Arabic in Algeria (Meftouh et al, n. d.; Adouane and Dobnik, 2017; Harrat et al., 2017; Addar, 2018; Mokhtar, 2018). Actually, the impact of indigenous and foreign languages is one of the major factors that created huge gap between the different Arabic dialects to the extent of unintelligibility.

1.4.2.4. Language Contact and Intelligibility amongst Speakers of Arabic

In addition to the difference in attitudes towards these varieties of Arabic, people in the Middle East also assume that they do not understand Maghrebi dialects. This is due to the impact of Berber in addition to other foreign languages, mainly French and Spanish, since these languages have reshaped the construction of Arabic in this area, distinguishing it from the eastern Arabic dialects whose development took another direction because of their different historical and cultural contexts. When Arabic was introduced to North Africa, the dominant language was basically Berber, in addition to Latin which disappeared later.

Arabic-Berber bilingualism became a commonplace phenomenon in the area since then. Yet, some Berber communities have been completely Arabised, shifting gradually towards Arabic. Others, however, found refuge in the interior regions and isolated mountains to preserve their cultural and linguistic specialities. In other words, Arabic-speakers today are not necessarily descendants of the Arabs coming from the Middle East since the seventh century, but rather the majority are Arabised Berbers. Hence, Arabic in the Maghreb has been adapted to suit the linguistic and the cultural behaviours of its new speakers, especially as far as the structural, phonological, and lexical features are concerned. Ibn Khaldoun, who spent a considerable time in the Maghreb region in the fourteenth century, also attributes the divergence of Arabic spoken in this area to its contact with Berber.

In Ifriqiya [modern-day Tunisia] and the Maghreb, the Arabs had contact with non-Arab Berbers who constitute the bulk of the population of these countries. Hardly any city or group was without Berbers. Therefore, the non-Arab element there gained preponderance over the language of the Arabs. Thus, there originated

another, mixed language in which the non-Arab element was preponderant, for the ancient language than other dialects. (Ibn Khaldoun, 1958: 352 quoted in Sayahi, 2014: 26)

That is to say, the development of Arabic in the Maghreb region since its introduction to the area has been intensively influenced by the linguistic systems of local languages. This might be one of the factors behind the remarkable differences between the various forms of Arabic that are spoken in distant areas.

In addition to the indigenous language, foreign languages introduced to the North African lands also have had profound impact on Arabic. For instance, Spanish loan words are widely present in some regional dialects of western Maghrebi Arabic vernaculars. This language was first brought by the Andalusí refugees who spoke a divergent form of Arabic in the periods between the fifteenth and the seventeenth centuries when the Christians spread southwards into Muslim Iberia. French also inserted itself in the linguistic manifestations of the Maghrebi populations after a long period of French occupation. Today, French is deeply rooted in the Arabic dialects of the Maghreb, this is salient via the enormous loan words as well as the sociolinguistic forms such as code-mixing and code-switching to the extent that some Maghrebi dialects may be considered as a 'hybrid' between Arabic and French.

Besides the interference of these languages into the construction of Arabic in North Africa, it has also been developing differently since the mid of the twentieth century due to the heavy trends of urbanisation. Rural exodus to the cities seeking better life conditions in the post-colonial era have had profound impact not only on the social fabric of the Maghreb region, but also on the language varieties used, the thing that has over intensified the gap between Maghrebi and eastern dialects of Arabic. Accordingly, the cities became meeting grounds for speakers of different varieties and languages leading, thus, to the emergence of various unique sociolinguistic phenomena. For instance, processes of koinéization have been taking place as a result of dialect-levelling between urban and rural varieties due to the rising rates of urbanisation in big cities like Algiers (Benrabah, 2007) and Tunis (Sayahi, 2014).

In addition, it is widely believed that while people in the middle east find difficulties understanding Maghrebi people, the opposite is not true. That is, most Maghrebi people assume that they understand all Arabic dialects. This can have linguistic explanations since Maghrebi dialects are influenced by Berber language structure as well as by the many loan words borrowed from foreign languages throughout history. However, intelligibility is not really a relation between varieties but between people, i.e. the degree of intelligibility does not depend

only on the amount of overlap between linguistic items of varieties but on people's motivation and how much experience do they have in the other varieties.

Middle East dialects used to enjoy more prestige than the North African did, due to historical and social factors. Besides, the former have a rich tradition of media industry, especially Egypt and Syria, whose movies, series, and songs were consumed by all Arabic-speaking communities. In other words, people in North Africa have more motivation and experience in acquiring Middle East dialects. Recently, however, this gap is being reduced with the ubiquity of social networking sites like Facebook, since people in the Middle East are exposed to other Arabic dialects and they are more motivated to learn them, since they found themselves in online groups and pages reading Arabic varieties that they cannot understand. Actually, this is an interesting topic to investigate in order to see to what extent the Arabic dialects will be mutually intelligible as a result of the impact of digital communication, which brought together people from far distances.

1.4.3. French

Despite the fact that French in Algeria is coined with colonisation, it is today the most prestigious language. It even competes with Arabic, the language of Muslims' cultural pride, and Berber, which symbolises the North African ethnic identity. French has been introduced during colonisation, yet it could not have been so integrated in the Algerian linguistic repertoire without the discriminatory and the assimilationist language policies implemented during the one hundred and thirty-two years of colonisation. This period was sufficient to change the course of the Algerian history, identity, culture, society, economy, and languages, etc.

1.4.3.1. Maintenance and Spread of French after Independence

Different theories have been put forward to explain why did the French language and culture survived after independence despite the intensive Arabisation policies. In fact, French has spread in the post-colonial era even more than during colonisation. Hence, explanations must go beyond mere descriptions and analysis of functions and usages of French as the language of modernity and international communication, in the former French colonies. Two approaches are discussed in this research, psychological and macro-sociological perspectives.

i. Psychological Approach

The ultimate goal of the French during colonisation was not only an attempt to exploit the economic resources of the country nor was it just for the sake of political hegemony, but rather their agenda was designed to annex Algeria to their homeland. Consequently, their

policies targeted the local culture and identity through displacing native languages with their own as a means for ideological domination because they become easy to manipulate without their native cultural ties. The backbone of the French acculturation programmes was the eradication of the natives' identity, including their languages and religion that were treated by the French as signs of backwardness. The Algerians, hence, were referred to as 'savages', 'barbarians', and presented as uncivilised species ranked at the bottom of the evolutionary ladder (Maamri, 2009).

Therefore, the colonisers' mission was to 'civilise' the natives through, ironically, strict control of all the domains of life like education, government, business, intellectual life, etc. Most visible of these and that left behind lasting distractive consequences was the re-structuration of the educational system based on French standards and aims. In response, the colonised man developed, unconsciously, a strategy to escape the coloniser's stereotype of the uncivilised man. According to psychoanalysts such as Franz Fanon who adopted Jacques Lacan's conceptualisation of mimicry as camouflage, the colonised depend on the ability to imitate the Other using their language as a means for self-identification and to gain recognition from the part of the coloniser. In this respect Maamri (2009: 80-81) believes:

In Lacan's formula, 'desire' is the desire of the Other, and desire in all human beings is closely bound up with identification. When the Other is white/European, the colonised subject's desire to be desired as white/European [...] And to "be" the Frenchman was above all to speak as he does. Hence, the French language became an object of desire and identification.

This camouflage and desire for Europe, however, resulted in a split of the ego and cultural alienation, as "[first] subjected people can never totally free themselves from their acceptance of the coloniser's view of them as inferior: [second] the more they identify with Western values, the more they reject their owns" (Fanon cited in Maamri, 2009: 81). This approach, in fact, succeeds to some extent in the explanation of the maintenance of French after independence as a language of prestige, in addition to its role as the language of science, modernity, the vehicle of secular domains, socio-economic mobility, and an openness towards Francophonie as well as cross-cultural communication.

ii. Macro-Sociolinguistic Approach

Other studies, however, adopt macro-sociolinguistic paradigms for the explanation of the phenomenon. Benrabah (2007a) argues that several sociological factors taken together and

interrelated in a complex manner better explain language maintenance or shift. He believes that four ecological factors contributed to the maintenance and the spread of French in Algeria after independence, even more than its spread during colonisation. First, economic changes: due to the government's economic policies of 'nationalism' and industrialisation, French became typically 'the language for bread' because with the country's transition towards market economy and internationalism, French became the tool for the teaching of science and technology and then for better job opportunities after graduation.

Second, demographic changes and urbanisation: the unprecedented population growth after independence coupled with the growing trends of urbanisation reversed attitudes towards French especially amongst youngsters who consider it part of Algeria's history. Third, institutional support: while the educational reforms after independence were primarily designed to displace French, they became, ironically, major support for the expansion of French which was acquired mainly as a second language. Alongside education, the Algerians have always been exposed to French through various means like the economic sphere, periodicals, journals, and books published in French, in addition to audio-visual media broadcasted in French that attracted people's consumptions more than the local TV channel, for instance. Fourth, language status: attitudes towards the two competing languages (Arabic and French) have been completely reversed after the end of colonialism.

In addition to the above mentioned social factors that ensured the maintenance and the spread of French in North Africa in general, and in Algeria in particular, is the growing trends of immigration towards, mainly, the French-speaking European countries such as France, Belgium, and Switzerland (Sayahi, 2014). These immigrants do not only energize the usage of French, as they often go back to their homelands for vacations and they also maintain ties with their families, but they add to the prestige of the language as well since they constitute a highly perceived and an important social group. Accordingly, French maintenance and spread in the Maghreb region is often tackled from a macro-sociolinguistic level, as most investigations focus mainly on sociological explanations rather than on the linguistic consequences of the historical contact between French and the local languages of the Maghreb. The available literature dealing with the linguistic analysis of variations in French as spoken and used in North Africa is not sufficient and does not cover this complex linguistic situation.

French is deeply rooted in the Maghrebi linguistic manifestations and its presence in the different domains in society is unavoidable because it is no longer a mere language of colonisation but it is now a localized linguistic means used in several domains in addition to its

usages as a medium for transnational and cross-cultural communication. In other words, French today is not reserved just for its traditional role as an openness towards Francophonie and Europe but it has been integrated into the local linguistic behaviours of the people, regardless of their degree of competence in French or their educational level. As an evidence, one of the defining features of the Maghrebi dialects is the heavy French loanwords into both of Arabic and Berber in addition to its use as a means of communication in informal situations like discussions at home, in the street, at work, among friends and colleagues. In other words, French has been vernacularized as a result of steady adaptations of French linguistic forms according to what suit the local linguistic and cultural behaviours of its non-native users. This process has led to the development of variations of French depending on several factors and also contributed to some extent to reversing people's attitudes towards it.

1.4.3.2. Reversing People's Attitudes towards French

Based mainly on socio-economic parameters, some varieties become more prestigious than others as they are inserted in the most important domains. Despite its lack of official status, French continues to be the language of modern and scientific fields such as commerce, industry, finance, technology, international trade, telecommunications, medicines, and so on (Marley, 2004; Ennaji, 2005). These domains, in fact, guarantee the role and status of French as the language of prestige and social power in Algeria. Hence, French, being a *de facto* official language, is in a constant competition with SA as they are used simultaneously or alternatively in high domains such as education, administration, media, and the public sector. That is, on the one hand the French colonial policies failed to erase the Arab-Berber identity of the indigenous people, post-independence Arabisation policies failed to displace French of its position as the language of modernity and socio-economic prestige, on the other.

Furthermore, people's attitudes towards French are dictated mainly by their ideological stands (Sayahi, 2014). While conservative sectors of society perceive it as a threat to Arabo-Islamic identity and a sign of dependence and subordination, progressive sectors believe that it is a means for scientific and technological advancement as well as a bridge that links them with Europe and the external world. In general, people's positive attitudes towards French is also an important factor for its maintenance and spread especially that it is associated with socio-economic success. It is evident historically that the language that spreads beyond its national borders by means of political and military power is only maintained by its role in the economic spheres because it becomes a target for every one due to its importance as a vehicle of success

and power. That is, in spite of the official reduction of the status of French, as it is officially recognised as a foreign language, it enjoys a high prestige.

In a nutshell, several high domains seem to favour French instead of SA. This is in fact a witness for the failure of the Arabisation policies which were designed primarily to displace the former for the latter. Recently, however, the unquestionable status of French in the Algerian sociolinguistic profile started to shake and shrink, especially amongst the new generations, due to several social changes as well as the impact of the new world order. With the growing trends of global interconnectedness, a new linguistic vehicle of science, economic power, and development started to spread gradually across the world. Indeed, the global language is seeping gradually into important domains in Algeria since the 1990s, mainly in education, technology, and the oil sector.

1.4.4. English

English was deliberately introduced to Algeria mainly via education as one of the procedures of '*défrancisation*' and Arabisation after independence, in a period when French was the dominant language in the economic sphere, sciences, the private sector, and universities. Statistically, Algeria by the turn of the twentieth century was considered as the largest francophone community in the world after France. That is, despite the language planning and policies implemented as early as the 1960s to remove the linguistic traces of colonisation through adopting a monolingual ideology with Standard Arabic being the sole official language, French remained not only as the language installed in the high domains but it even spread to informal usages. In fact, several social factors influenced the language situation of the country in the post-independence era.

The four decades following independence were characterised by major changes that affected the social fabric of the country. Indeed, factors like the unprecedented population growth, urbanisation, and the increasing rates of literacy mainly in Arabic have had profound consequences. These coupled with other political and economic changes such as the end of a single political party in favour of more liberal representations following the widespread unrest of October 1988 as well as the openness to market economy alongside the increased foreign relations in the modern globalised world shaped the linguistic course of the country.

These changes have paved the way for the end of the monolingual policies, which proved to be sterile. Yet, the multilingual nature of the Algerian landscape has never been fully expressed officially, it was only in 2002 that Berber was declared as the national language and

in 2016 as the official language alongside Arabic, whereas the other language varieties still have no official status. These languages, however, obtained important shares of the Algerian educational system, namely French and English, while Algerian Arabic in addition to the majority of the Berber dialects are still the most officially marginalised varieties as they are reserved for the most informal domains.

1.4.4.1. Introduction of English into the Educational System

If compared to French, which has been traditionally ingrained in the Algerian linguistic environment, English has only recently been introduced to the country via education because, in contrast to French, it was perceived as a deethnicised ⁽¹⁰⁾ variety (Benrabah, 2014). Since its first integration in the educational system in the 1970s, several reforms went in its favour, especially as far as the appropriate school age of its acquisition is concerned. English was taught in the eighth grade of middle schools in the period between the 1970s and the 1990s as a second mandatory foreign language after French, which was taught since the fourth grade of primary cycle (Benrabah, 2007b; 2014). In 1993, the Ministry of Education introduced English in primary education as a competitor to French, pupils had to choose between French and English as the first mandatory foreign languages (ibid).

As mentioned earlier, English was involved in the Algerian educational system as one of the language planning measures to substitute French because it reinforces ties with the English-speaking Middle East as another step in the Arabisation process (Belmiloud, 2012). This procedure was launched mainly after the increasing gap between the Francophones and the Arabophones as a consequence of Arabisation. In other words, the pro-Arabisation lobby thought that the culturally neutral nature of English, in contrast to the correlations of French with colonisation, would facilitate the spread of the former at expense of the latter. However, the ‘war’ of the two world languages in the Algerian educational system turned in favour of French, as *“between 1993 and 1997, out of two million school-children in grade four, the total number of those who chose English was insignificant – between 0.33% and 1.28%”* (Milliani, 2000; Queffélec, et al. 2002 cited in Benrabah, 2014: 51). That is, the first attempts to substitute French by English failed.

According to Benrabah (2007a; 2014), two major factors contributed to thwart the political plans that sought for displacing French in favour of English. First, the language policies undertaken by post-independence rulers have always been authoritarian and anti-democratic. This has raised sentiments amongst the people that these plans were designed to deny them the right to access the language of economic power because at that time the job market required

proficiency in Arabic and/or French, whereas English was not a national requirement (Belmiloud, 2015). Consequently, their reactions can be viewed as a strategy against political and linguistic oppression. Second, these leaders misrepresented the two languages in education as rivals. The people, however, have more multilingual orientations, especially that they prefer additive rather than subtractive multilingualism (Benrabah, 2014).

1.4.4.2. Spread of English in Algeria

Recently, however, mainly in the last two decades – by the end of the twentieth century and the beginning of the twenty-first – things started to change in favour of the spread of the English language, especially amongst the youngsters, the future generations. This change can be explained by several factors, mainly the end of terrorism and the shift from socialist to market economy because the former supported MSA while the latter requires foreign languages. In addition, the increase of Algeria's foreign relations, especially with the European Union and the USA, have also contributed to the spread of English. For, on the one hand, English is widely recognised as a lingua franca of diplomacy and foreign relations. On the other hand, the US and UK encourage the education of their language, especially with the increasing programmes provided by both of the US embassy and the British Council in Algeria. Another equally important factor is related to people's perceptions towards western countries namely Europe, USA, and Canada. Due to the bad living conditions in Algeria, they associate 'el-kharej' (literarily translated as foreign) with better future (Belmiloud, 2012). For that reason, the majority of young people long for immigration or at least work for a foreign company in Algeria, and in both cases a mastery of foreign languages is a necessity (ibid). Hence, English is recently gaining ground in Algeria mainly due to the former's international status and the latter's openness to the outside world in the increasingly globalised world. Furthermore, Benrabah (2014: 52-3) believes in this respect:

In fact, the preservation of the French language in the North African former colony of France does not necessarily guarantee its presence in the long run, especially with English kept as a standby (...) where French to decline in Algeria, it is English and not Arabic which would replace it as the language of economic power.

Indeed, the new social context intensifies rivalry between the two world languages in Algeria. So, in spite of the failure of the Arabisation policy to remove French via introducing English, English started to integrate itself in important economic and social sectors in the country. Consequently, English today constitutes a real threat to the formerly unquestionable position of

French in domains like science, economy, education, technology, openness to the world, modernity, cross-cultural communication, etc.

According to Benrabah (2014) again, several signs indicate the shift of interest from French to English. Systematic Arabisation coupled with “elite closure” have resulted in large-scale monolingualism in Arabic particularly in the less populated areas like the rural and the Saharan territories which constitute most of the country’s regions, whereas only a minority, often from the dominant social groups in large cities, have either Arabic-French or Berber-French balanced bilingualism. In addition to that, while English managed to deethnicize itself from the burdens of imperialism, French is still largely associated with its history of colonialism especially in countries like Algeria where people still have not forgotten the French crimes. In a survey in 2004, Benrabah (2007: 203) concluded that *“the larger the city the less students associate French with a painful past (colonialism) and vice versa. These results tend to show that the French colonial era is an enduring memory in less populated towns and cities”*. Hence, English is heading in less populated areas replacing gradually French. Another significant sign is the multilingual tendencies of the population, following the failure of the top-down language policy, with English as the most favoured foreign language to learn. As a matter of fact, students’ enrolment in departments of English outnumbered that of the French departments.

Thus, English is gaining in importance and it is increasingly privileged over French in education as the dominant second language. This is strongly driven by factors like the need to access information from its original source rather than through the translated versions; people’s perceptions that it improves career prospects, and the employment opportunities it affords both within (in the oil and gas sector, which is absorbing great demand for English language skills) and outside the country (Erling, 2015). In addition to the already mentioned factors, English is seeping gradually to the Algerian linguistic landscape also due to the increasing exposure to the Internet, either to access information or to communicate through the different social media such as Facebook and Twitter, though the Internet penetration rates in Algeria are very low and centred mainly in the urban areas. For instance, English is widely present within Algerian Facebook groups, some of which forbid the use of languages other than English. Besides, the spread of English has also been fostered by factors like the widespread of ‘Pop Culture’ via its different genres, music, movies (particularly Hollywood movies), TV broadcast, sports, news, fashion, technologies, etc.

In spite of all these potentials, English language proficiency in Algeria is very low if compared to the other MENA countries, only 07% of the population have a good command of

the language (Euromonitor International, 2012). Yet, the actual levels may well be below these rates because these studies relied on self-reported measures of English language abilities rather than on invigilated external assessments (Research Report, 2016). This is mainly due to “(...) *the relatively poor management of the higher education sector in the country and the lack of resources*” (ibid: 26). In this respect, Rezig (2011) argues that university students’ low levels in English, despite their positive attitudes towards learning it, is the outcome of their educational background (referring to primary, middle, and secondary levels) as a result of the country’s language-in-education planning since the 1960s.

Yet, in spite of the Algerians’ low competencies in English, its usages in the country are steadily increasing. As for its rank and place within the growing English-speaking world, Algeria is arranged under the ‘Expanding circle’ of English, relying on Kashru’s (1981) tripartite classification. This circle includes countries where English is given the priority for foreign language education, i.e., in countries where it is neither a mother tongue nor an official language. Literature related to the global spread of English indicate that the language is losing its initial standard features wherever it goes opening the gates, hence, for the emergence of new varieties because it has been adapted to meet the communication needs of its new speakers (Crystal, 2001a), as well as their cultural and linguistic behaviours. In fact, researchers argue that no language reached the global status of English, since (among other things) it has a more permeable/flexible linguistic nature and it is more tolerant of varieties other than those of its native speakers. This raises the question, as far as the Algerian case is concerned, are we at the brink of the emergence of Algerian English?

1.5. Diglossia

Algeria in addition to the countries where Arabic is the mother tongue of the overwhelming majority are described to be diglossic because the variety which is declared as the official language is quite different from the one used in everyday conversations, in spite of the fact that they are genetically related. Besides their differences in form, they differ in social functions as well, with each having definite roles to play in society because they are used under different conditions. Several definitions of diglossia have been proposed as refinements of the classical version, which was introduced to the field of sociolinguistics by Ferguson in 1959.

1.5.1. Classical Diglossia

The term diglossia was first borrowed by Marçais in 1930 (cited in Mol, 2003) from the literature on the case of Greece to describe the linguistic situation in North Africa where two

language varieties coexist, a written literary variety is used alongside the spoken-only dialects. Yet, the concept has gained general currency mainly after Ferguson's 1959 article 'Diglossia'. After his further elaboration of the linguistic situation in four different speech communities, the Arabic-speaking countries, Greece, German-speaking Switzerland, and Haiti, Ferguson came out with clearly defined features of the concept. He believes in this respect that:

Diglossia is a relatively stable language situation in which, in addition to the primary dialects of the language (which may include a standard or regional standards), there is a very divergent, highly codified (often grammatically more complex) superposed variety, the vehicle of a large and respected body of written literature, either of an earlier period or in another speech community, which is learned largely by formal education and is used for most written and formal spoken purposes but is not used by any sector of the community for ordinary conversation.
(Ferguson, 1959: 245)

This model was largely dichotomous in nature where the High variety (superposed or simply H variety) and the Low variety (regional spoken dialect or L variety) were represented as discrete forms.

Yet, Ferguson referred to intermediate forms in which the L variety is considerably mixed with the H variety. He added that in diglossic situations, the H and the L varieties are different in nine features, which have been classified later on into sociocultural and linguistic categories. The former includes differences in the functions attributed to each of these varieties, prestige, literary heritage, acquisition, standardisation, and stability. The latter, on the other hand, incorporates differences in grammar, lexicon, and phonology.

In fact, Arabic can be considered as a prototypical case of diglossia, as unlike the other three diglossic situations, the H variety is no one's mother tongue even outside the local speech communities (Mejdell, 2006). Indeed, only the L variety has native speakers because it is acquired naturally at home as a first language whereas the H variety is acquired through formal education, since it is (formerly) the only official language in the area. The latter also enjoys a long tradition of representing the sole codified orthographic system as well as a respectable body of written literature. As for competence and proficiency in the H variety, users vary largely depending on their kind/level of education in addition to their attitudes and motivation (ibid). This classical definition, however, has been criticised and refined by several sociolinguists later.

1.5.2. Subsequent Studies of Diglossia

The theoretical framework of Ferguson's model has been refined and discussed extensively by several subsequent studies, especially as far as the linguistic situation in the Arabic-speaking countries is concerned because of the complexity of the case as it incorporates an interplay of various forms of Arabic as well as of other foreign languages. According to Versteegh (1997), three main features characterise Ferguson's original model of diglossia. First, he restricted diglossic situations to the functional distribution of only two genetically related varieties. Second, he does not account for the fact that the complementary distribution of the two varieties does not imply that speakers of Arabic are not necessarily competent (grammatical knowledge) and proficient (use) in both varieties. Third, Ferguson's representation of such situations is dichotomous and categorical in which he distinguishes in his framework between two discrete varieties, i.e. speakers have to switch from one variety to the other in different social contexts. In addition to that, Bassiouney (2009) believes that Ferguson talked only about one form of each of the H and L varieties without taking into consideration the fact that in Arabic there are two H varieties which are Classical Arabic and MSA, although the distinction between the two forms is a western invention because in Arabic there is only one term used to refer to both concepts.

Indeed, several other models have been proposed in attempts to refine the original framework, which is widely known today in the literature as classical diglossia, even by Ferguson himself in his article 'Diglossia Revisited'. A major amendment to the theory was introduced by Fishman (1967, 1972) who extended the notion to include even varieties which are genetically unrelated, provided that they are in complementary distribution. Hence, diglossia was expanded to any functional distribution of linguistic varieties, which can be languages, dialects, or registers (Versteegh, 1997). Accordingly, linguists such as Fishman (1967, 1972) and Gumperz (1962) proposed sociolinguistic and psycholinguistic approaches to distinguish between diglossia and bilingualism. That is, the former characterises the functional distribution of varieties depending on various social parameters while the latter is perceived as the speakers' command and abilities in these varieties. Fishman (1967: 34) believes in this respect that *"bilingualism is essentially a characterisation of individual linguistic behaviour whereas diglossia is a characterisation of linguistic organisation at the sociocultural level"*. That is, when perceived from a social point of view, even different languages can be in a diglossic relation if they are used for different functions and situations depending on different social norms.

Another important modification of Ferguson's model concerns the dichotomous division between the H and the L varieties as being two discrete varieties, especially in the Arabic-speaking case. Unlike the original definition, subsequent studies on the Arabic language argue that speakers do not really switch from one variety to the other but they move along a continuum, i.e. the H and the L varieties are only the extremes (Versteegh, 1997). Ferguson (1996) himself in his "Diglossia Revisited" gave more weight to variation, which he referred to as the 'mixed' or 'in-between' varieties, within and across the two poles of the continuum (the H and the L varieties). In other words, he believes that these variations are arranged into a continuum that stretches between the two extremes but there is no intermediate independent pole. He says in this respect: *"I felt then and I still feel that in the diglossia case the analyst finds two poles in terms of which the intermediate varieties can be described; there is no third pole"* (Ferguson, 1996: 59 quoted in Mol, 2003: 49). Therefore, one's linguistic utterances are positioned along a scale of linguistic variation, which is determined by extra-linguistic factors and individuals' control over the span of the continuum depends on their linguistic proficiency, education, and upbringings (Versteegh, 1997).

1.5.3. Arabic Language Continuum

Indeed, the idea of Arabic 'language continuum' has been approved by almost all Arabic linguists because it represents better the situation. This is especially due to the fact that the contemporary civilisation coupled with the growing rates of educated people have influenced people's linguistic practices, which are not arranged only into two categories, Classical and Colloquial Arabic. They are rather characterised by a kind of heterogeneity where speakers can choose among the available linguistic variants depending on the situation of language use. Actually, different studies have dealt with the different forms and levels of the Arabic language continuum. Blanc (1960) distinguishes between five levels of Arabic (Plain colloquial, koineized colloquial, elevated colloquial, modified classical, and standard classical). This distinction is based on an investigation about interdialectal conversations between native speakers of Arabic who worked at the Army Institute in California, coming from different Arab countries, and who used to speak different regional dialects of the Arabic language. Blanc tried to know which strategies are used by these people to solve communication problems.

Another outstanding division was proposed by Badawi (1973) in analysing the situation in Egypt. He also came out with a distinction between five levels of Arabic: *fusha at-turath*, Classical Arabic; *fusha al-'asr*, Modern Standard Arabic; *'ammiyat at-muthaqqafin*, colloquial of the intellectuals; *'ammiyat al-mutanawirin*, colloquial of the literate; *'ammiyat al-ummiyin*,

colloquial of the illiterate. Unlike Blanc's classification which was interdialectal, Badawi's model correlates the different language levels to speakers' socio-economic classes or their educational level.

In spite of the differences between the above-mentioned studies, in approaches and population of research, both of Blanc and Badawi concluded that people shift between the two extremes especially in speaking, yet they don't shift directly to the opposite variety and such a linguistic practice results in levels which "*are neither fully H nor fully L*" (Bassiouney, 2009: 14). In other words, in Arabic diglossia, theorists shifted their attention from the two poles of the Arabic language to the intermediate levels which constitute a continuum of interrelated varieties. According to Majdell (2006: 3), "*linguistically, intermediate 'varieties' or 'levels' are characterised by the presence of more or less H and L features (...) each level sliding into the next as 'the colours of the rainbow'*". Therefore, it is crucial, at this level, to know what factors make speakers shift between the variants.

1.5.4. Language Choice across and between the Two Poles of Arabic

Various discourse factors determine language choice in such situations where speakers have various forms and can shift between them. This implies a complicated interaction between extra-linguistic factors and linguistic choice (Versteegh, 1997). Most relevant of these are mainly the interlocutor, the topic, and the setting. So, speakers in different contexts shift between linguistic markers. This choice can be arranged into a scale that goes from the informal to the formal speech situations, or vice versa. In other words, "*since the colloquial and the standard language are not discrete varieties, but only abstract constructs at the extremes of a continuum, linguistic choice does not involve a two-way selection, but rather a mixture of variants*" (ibid: 195). In addition, language choice differs also depending on the situation of language use such as radio/TV interviews, commercial reasons like in advertisements, political speeches, etc. Moreover, choice of linguistic markers also has to do with the speakers' attitudes towards the varieties. Furthermore, gender plays an important role in the linguistic practices because females are said to prefer standard/prestige speech forms while males use casual styles. Yet, this is not consistent with findings in the Arabic-speaking communities where urban dialects are regarded as more prestigious than the standard version, i.e. the standard/prestige variety is not necessarily identified with Standard Arabic (ibid).

Hence, there is no agreement on an exact definition to the concept and it is still one of the most controversial and debatable topics in sociolinguistics. In fact, the definition differs

depending on the setting (when and where) in addition to the interaction between several linguistic with extra-linguistic (social and psychological) factors. As for the case of Algeria, for instance, things are more complex than they seem to be. Any analyses of such a phenomenon in such a context should not be a superficial description of people's linguistic practices in different situations because a better understanding of diglossia in complex situations should take into consideration all the factors that interfere for the construction of the linguistic manifestations.

1.6. Multilingualism

If we compare the number of languages and the number of countries in the world, we come out to the conclusion that few, if any, countries are monolingual, in spite of the dramatic loss of languages. In other words, bilingualism/multilingualism is a world-wide phenomenon. Frequently, the latter concepts are often employed synonymously in the literature (Swann et al., 2004: 1). Yet, a distinction can be made between them, as bilingualism is the term used to describe the languages used at the individual level while multilingualism refers to the language situation (Clyne, 1998). Accordingly, the term multilingualism is used throughout this section because its aim is to deal with the consequences of contact between languages at the societal level rather than the individual.

For individuals, emphasis is often made on the alternative use and the degree of competence in more than one language. According to the normative definitions, people must have a "*native-like control of the two languages*" (Bloomfield, 1933: 55) to be considered as bilinguals. Such a narrow definition claims that a bilingual is required to have equal competence in the languages in addition to the ability to use either language in the same contexts. In this sense, few people in the world are to be recognised as bilinguals, the thing that proved unrealistic. Recently however, attention is shed on the ability to use more than one language to communicate that includes different degrees of command or use of the languages instead of the perfect mastery of skills, providing, hence, broader understanding of the phenomenon.

On the other hand, 'official' and 'de facto' multilingualism can be distinguished at the societal level (Clyne, 1998). A country with a lot of multilinguals is itself multilingual, it may nevertheless grant only one or two languages the official status. Conversely, most citizens may be monolinguals and yet the country is officially recognised as bilingual or multilingual (Edwards, 1994). A country like Switzerland is well known of its official multilingualism in spite of the fact that most people grow up with only a single-language competence because

multilingualism is based on a territorial principle. Whereas the official status of languages in most African states barely reflect their rich linguistic profile. Algeria can be considered as a typical example of this case, as despite the coexistence of several linguistic varieties, it has only recently declared Berber as an official language (in 2016) alongside Arabic, while French is considered as a mere Foreign language and the vernaculars (dialects of both of Arabic and Berber) still have no status at all, though they are the mother tongues of the people.

These varieties and the various historical, political, social, economic, and geographical circumstances that led to their introduction, spread, change, and maintenance have been explained in details in the previous sections. Recently, however, multilingualism in Algeria is no longer restricted to traditional factors like colonisation and trade especially that in an era of globalisation where the entire world became a 'global village', the need to be competent in more than one language became crucial. This has been mainly intensified after the integration of the country in several international organisations (like the World Bank and the UN) in addition to the increased foreign relations mainly with the European Union, the USA, China, and others.

The educational system has been reformed in the break of the twenty-first century to cope with this openness towards the outside world. Hence, foreign languages are gradually integrated into the different levels of education. Departments of languages like Russian, German, Italian, Spanish, Turkish, Chinese, and others alongside the departments of Arabic, French, English, and Berber in important Algerian Universities like in Algiers and Oran are the best witnesses of the country's multilingual character and tendencies. This change has been influenced by the fact that multilingualism became a desired educational aim in many countries following the increasing recognition and use of world and minority languages as well (Cenoz & Genesee, 1998).

Interest in cross-cultural communication also led to the need to learn foreign languages and contact between peoples is accelerated in unprecedented way due to the new media of communication. So, users of the communication technologies are exposed all the time to languages other than Arabic or Berber. Another important factor that made the young generation interested in foreign languages is the obsession about immigration, a phenomenon that began as early as the first years after independence and increased in the recent decades, seeking for better life conditions. Even inside the country mastering at least one foreign language improves the chance of having better job opportunities especially in the private sectors and foreign companies. All these factors enriched the multilingual character of the country and

led to the emergence of various sociolinguistic phenomena as a result of contact between these linguistic varieties.

1.6.1. Language Contact

It is clear, so far, that Algeria with its complex history became a ground of different linguistic varieties. Yet, what has over complicated the case and attracted the curiosity of sociolinguists is not only the number of languages used and the conditions of their development but they are more interested in the consequences of contact between these varieties in the various complex social structures. Unique features characterise the different varieties used in Algeria especially in the contemporary period as contact between individuals as well as communities is unavoidable due to factors like urbanisation, internal migration and mobility, education, and the communication media (mainly TV and the various social networking sites like Facebook).

Among the most widely researched issues of language contact in Algeria are the consequences of the coexistence of French and Arabic since 1830. The various linguistic and cultural policies implemented by the French during the 132 years of colonisation made of their language an inseparable part of the Algerian cultural identity today. In spite of all attempts to substitute French in favour of Arabic via the Arabisation policies since independence, French is still deeply rooted in the linguistic behaviours of the Algerians. The Algerian dialects are loaded with borrowed words with varying degrees of integration in addition to alternations of codes within single conversations and sentences.

There are different forms of the alternative use of languages in bilingual contexts, yet there is no consensus in the literature about what exactly constitutes each form and what distinguishes between them, if there is a distinction at all, since some of them are often employed as umbrella terms that incorporate other forms. Indeed, several theories have been proposed but they have been ploughed by issues of terminology and confusion. The most widely known and researched consequences of contact situations are code-switching and language borrowing. As far as the ambiguity in distinguishing between these concepts is concerned, Edwards (1994: 76) believes “(...) *whatever labels we apply – interference, code-switching, mixing, transference, etc. – it is clear that in all cases something is ‘borrowed’ from another language.*” That is, different elements from at least two languages are put together within the same conversation.

1.6.2. Code-Switching

In spite of the fact that much has been written about code-switching, there is no agreement among linguists and sociolinguists about what defines it exactly. Spolsky (1998: 49) assumes that *“bilinguals often switch between their two languages in the middle of a conversation. These code-switches can take place between or even within sentences, involving phrases or words or even parts of words”*. Similarly, Myers-Scotton (1998: n.p.) claims, *“(...) fluent bilinguals sometimes engage in code-switching by producing discourses which, in the same conversational turn or in consecutive turns, include morphemes from two or more of the varieties in their linguistic repertoire”*. In both definitions, code-switching is used as a cover term for possibly different forms of language alternation, in which the label code-mixing could be equally valid, but what is common is the fact that two languages are involved.

Due to the fact that there is no clear cut between language and dialect from a linguistic perspective, theorists often prefer to use the ‘neutral’ term varieties rather than languages in their definitions of code-switching. Gardner-Chloros (1991 cited in Haoues, 2009) believes that switching does not necessarily occur between different languages but can even occur between dialects of the same language. In Algeria for instance, people often switch between Standard Arabic and Algerian Arabic especially amongst Arabic-educated Algerians mainly as a result of Arabisation, this phenomenon has been called by Bagui (2014) diglossic code-switching. Haoues (2009), on the other hand, believes that this is different from diglossic situations where the choice is determined by the functions attributed to each variety in various situations.

In this respect, what defines code-switching is the use of elements from variety A in variety B without or with little phonological, morphological, and/or syntactic assimilation, i.e. these elements (words, phrases, or sentences) often preserve their original form (cited in Haoues, 2009). However, not everybody agrees with assimilation as a basis of distinction between this phenomenon and other forms of language contact. Relying on Poplack (1980) model, three types of code-switching are figured out in the Algerian linguistic behaviours. These types are inter-sentential code-switching, which occurs between sentences or turns; intra-sentential, occurs within a single sentence or a clause, and extra-sentential code-switching refers to the insertion of ready-made expressions in conversations, like tag questions, exclamation, etc.

Spolsky (1998) believes that code-switching is the beginning of linguistic borrowing. Hence, switching is when bilinguals use language A in language B while borrowing is used by

many people “*even speakers of B who don’t know A are likely to pick it up*” (ibid: 49). In other words, when there is too much code-switching in a community, some words will be integrated in the recipient language and will be used by people without awareness of their foreign origin.

1.6.3. Linguistic Borrowing

Most sociolinguists believe that linguistic borrowing refers to the lexical material which has been adapted to the phonological and morphological patterns of the recipient language (Spolsky, 1998). Further, a distinction is also drawn between ‘language borrowing’ and ‘speech borrowing’ (Grosjean, 1982). In the first kind, foreign words are so integrated in the recipient language that even its speakers are not aware of that, while the second one refers to the foreign elements used in a discourse. Edwards (1994) believes that the established borrowing (language borrowing) grows from speech borrowing and it can either be for filling lexical gaps or ‘gratuitous’ words, i.e. they are used in spite of the fact that there are equivalent items.

In the case of Algeria, Negadi (2015: 203) believes that there are two kinds of borrowings. First, words borrowed due to speakers’ needs because they have “*no counterpart in the native’s vocabulary as in the domain of technology, administration, etc.*” Bagui (2014: 90) claims, in this respect, that many linguistic items are used especially among young people as a result of the technological developments, since there are no equivalent terms in Algerian Arabic – words like *flexy, chater, connecter, activer, imprimer, taper, site, email*, etc. are widely used. She believes also that many French words are used excessively by the Algerians, whether literates or illiterates, sometimes without even paying attention or awareness of their French origins, such as *ça va, ça y est, déjà, jamais, grave*.

Second, the ‘gratuitous’ borrowings, however, “*do not come along with any new objects or ideas (core borrowings) but were rather used as synonymous of native originals which, in some cases, they eventually displaced words of everyday usages*” (Negadi, 2015: 203). In other words, instead of using the available Algerian-Arabic words, they tend to use French words and generally these are used by educated people. Nevertheless, not everybody agrees on the subdivision of borrowing and there is a little agreement on the distinction between speech borrowing and code-switching (Gafaranga, 2007).

As far as classifying the different performances of borrowed linguistic practices is concerned, Negadi (2015) distinguishes between two categories of borrowed French words into Algerian Arabic: nouns and verbs. Haoues (2009), on the other hand, labels them ‘integrated’ and ‘non-adapted’ borrowings respectively. Yet, he adds a third category, which he calls ‘non-

conventional' borrowing. He believes that these borrowings are arranged in a continuum with varying degrees of assimilation.

In integrated borrowings, French words are completely integrated into the phonological as well as the morphological norms of Spoken Algerian Arabic to the extent that they seem to have Arabic origins. For instance, some French speech sounds are substituted by other Arabic sounds (phonological adaptation/integration) because they do not originally exist in Arabic. This substitution is not random but, rather, these sounds share some similarities like the place of articulation. For example, /p/ becomes /b/ in words like /bla:ʂa/ instead of the French word *place* (place); /v/ becomes /f/ for instance /fila:ʒ/ instead of *village* (village) (Haoues, 2009; Negadi, 2015).

It should be noted, however, that such phonological adaptations vary depending on social variables like region, education, and age. For example, while in the west of Algeria people say /bu:mba:/ for the word *pompe* (a pump) and /fila:ʒ/ for the word *village* people in the centre say /pu:mpa:/ and /fila:dʒ/ respectively. In addition, old people and illiterates in the centre pronounce the /b/ sound instead of the /p/ like people in the west. Further, the word /bu:mba:/ (which refers to a pump in the west), is used also in the centre but it serves a different meaning (a bomb).

In addition to the phonological integration, borrowed French nouns are also integrated into the morphological system of Arabic. For instance, French words are added the vowel /a/ by the end to denote the feminine (*valise* becomes /vali:za/) and the suffix /-a:t/ to indicate the regular feminine plural (*valises* becomes /vali:za:t/); in the case of irregular feminine plural, the words also assimilate into the morphological patterns of Arabic (*places* becomes /bla:jas/) (ibid).

French verbs are also borrowed into Algerian Arabic, yet they most of the time preserve their original root since they are used as raw materials and they only take the inflections of the dialect, this is called non-adapted borrowing (Haoues, 2009). For example, the French expressions *je le provoque* (I provoke him) and *nous le provoquons* (we provoke him) become /neprovoki:h/ and /neprovoki:wah/ respectively, by adding prefixes for the personal pronoun and suffixes for the present tense (ibid).

As for the non-conventional borrowings, Haoues (2009) believes that they are French nouns which have been borrowed to Algerian Arabic through applying the rules of non-adapted borrowing (that are usually applied to verbs and not nouns). In other words, some French words

are used to serve roles of verbs like /gripi:t/ is used to refer to *j'ai la grippe* (I have a flu) and /wikandi:t/ means in French *j'ai passé le weekend à la résidence universitaire* (I spent the weekend at the university campus).

The challenge in the research beforehand is to explore whether or not these linguistic behaviours are also transmitted to the text-based communication media and what factors determine these usages. It also attempts to uncover the similarities and differences and whether these media have led to changes in such practices. What if these complex linguistic practices are transmitted into a text-based medium of communication? What strategies were used by the Algerians to overcome its constraints? Are these forms preserved as they are? Are there any new emerging forms to cope with the nature of this technology? How do the Algerians represent switching between the different varieties in a written medium? Bearing in mind that previously Algerian Arabic was only spoken and the Arabic and French scripts are strikingly different.

1.7. Conclusion

As has been presented throughout the different parts above, this chapter constitutes the platform on which the whole thesis stands. Many details about the Algerian sociolinguistic situation have been provided, as they are crucial for the accomplishment of the research objectives. The chapter began with a brief introduction into the historical background of linguistic diversity in the case under study. The policy of Arabisation implemented in Algeria after independence has also been given credit because it contributed to the construction of the sociolinguistic profile of the country. Special emphasis has been given to the languages and linguistic varieties used by the different communities of the Algerian society. Light has been shed on important language-contact situations such as diglossia, multilingualism, code-switching/mixing, and linguistic borrowing. All these details pave the way to the upcoming sections as a means to reach the main research aim, which seeks to investigate the representation of the rich Algerian sociolinguistic profile on Facebook. Hence, the following chapter is concerned with the digital environments of communication, in general, and their impact on language use in particular.

Notes of Chapter One

- 1- The term Berber was first used by the Greeks and then the Romans to refer to the outsiders. Yet, the Berbers refer to themselves as *Amazigh* or *Imazighen*, which means a free man.
- 2- The term North Africa refers to the area that includes all countries that stretch from Mauritania in the north west of the continent to the east Sahara, including Morocco, Algeria, Tunisia, Libya, Egypt, Ethiopia, and Sudan. Increasingly, however, only Maghreb countries (Morocco, Algeria, and Tunisia) are used to refer to North Africa.
- 3- This is only applicable to Berbers living in the northern regions of Algeria (Chaouia, Kabyles, and Tachanouits), whereas the physical features of the other Berber groups of the Saharan regions (Mozabits, Zenata, and Touareg) are so different and they resemble other African people.
- 4- This was the year of true Arab conquest to the Maghreb and the widespread conversion of the natives to Islam. Yet, there were several military victories launched by the Arabs earlier in the 640s.
- 5- The Islamisation of North Africa guaranteed its independence from Europe to which it had been tied for centuries, until the eighth century, because of the several successive occupations of different civilisations coming from Europe.
- 6- It is crucial to point to the fact that the process of Islamisation and Arabisation was not brought about by actual warfare, plunder, or violence. Actually, many historical events have been faked for use in the 'divide-to-rule' policy during the French colonisation to Algeria and even after independence; leading, hence, unsettled conflicts and tensions between the different ethnic groups of the country.
- 7- This has been gradual; through extensive intermarriage, feudal relationships, conversion of the natives to Islam, and their similar life styles either in cities or in rural areas. The latter can be explained by two major factors, on the one hand Islam is typically an urban religion, i.e. Berbers living in large cities have been completely Islamised and Arabised. On the other hand, the rural areas were also influenced by Arabic because the Arabs were nomads, having the same lifestyle of the Berbers.
- 8- Traces of the French policies (crimes against humanity) exercised in Algeria are still salient today because they targeted sensitive domains of the people's social life. They brought huge

numbers of settlers from different European countries, who became lords of the lands while the real owners became their servants without even being paid for the work; they also intervened in the educational system, which has had long lasting consequences; they created division between the Berbers and the Arabs; they destroyed mosques, which did not only symbolise religion but were sources of knowledge and education; they destroyed schools and entire villages; they renamed cities and streets by French names, and they have even changed people's names and substituted them with other names of animals and parts of human body, for instance. All these policies and others have had drastic consequences on the social fabric as well the psychological construction of people.

9- Though Berber dialects are used by people living in non-contiguous areas that, traditionally, led to break down of contact between them, new media of communication (namely private TV and radio channels broadcasted in Berber and recently Internet with its various interaction environments) are bridging this gap. Actually, Internet gave the opportunity to the former spoken-only varieties to be used in written usages for interpersonal communication though it has never been fully codified. Thus, Berber is being informally codified and used for more domains in addition to the traditional ones like home discussions and oral literature, including poetry, songs, proverbs, stories, etc. Yet, in spite of all these potentials, language shift is still seeping gradually into a considerable number of Berber speakers in the different groups as a result of many factors. The Berber case has been tackled in the fourth chapter as an attempt to investigate how it is represented in and influenced by Facebook.

10- A deethnicised English language is an open variety that is not associated with Britain's colonial past or any of the countries in which it is spoken as a mother tongue. So, English could free itself from the burden of its colonial legacy, unlike French, that's why it has been widely accepted by people who have been colonised.

CHAPTER TWO:
LANGUAGE USE
IN THE DIGITAL
ENVIRONMENTS
OF COMMUNICATION

Chapter Two: Language Use in The Digital Environments of Communication

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2.1. Introduction

The technological advances have fuelled human communication and enabled information exchange between individuals and groups without the need of physical movements, especially after the advent and the proliferation of the Internet. If we take a glance at history, we may say that such technologies have not only changed the way people interact with each other but they revolutionised the way they live as well. Actually, many of the ‘well-established’ concepts need to be reconsidered, especially the term of communication itself, as it is no longer restricted to the traditional processes nor does it preserve their critical characteristics in this advanced technological Framework of communication. Indeed, several studies, since the beginning and the ubiquity of electronic-mediated communication (EMC), attempted to figure out similarities and differences between this form and face-to-face-communication and a special emphasis is placed on language use in the digital world.

In this tune, this chapter devotes itself to consider the major concepts related to the new communication media and how they affect the way people interact and use language. It begins first with introducing the concept computer-mediated communication (CMC) and the main characteristics and types of communication in the digital age. Social networking sites (SNSs) dominate people’s penetration rates and, for that reason, among others, the research pays special attention to the services they afford. Light is mainly shed on Facebook, the most popular SNS in Algeria, for the time being. Then, the sociolinguistic consequences of these digital environments of communication are tackled. Arabic is the case that has taken the lion’s share of the chapter due to its’ outstanding features that are strikingly different from European languages in addition to the huge amount of criticism the new characteristics that it acquired online have received.

2.2. Computer-Mediated Communication

With the ubiquity of computers and the Internet for social as well as professional purposes, communication at distance became much better, easier, popular, and global. Interestingly, the drastic developments of mobile devices as well as the Internet itself, since its advent, have altered the way people connect via networked devices, as each time updates are integrated into its various sub-technologies, multi-media services, applications, and affordances. Smith et al. (2003) believe, in this respect, that in the mid-1990s, a discussion of such communication as a ‘single media’ was more permissible unlike in the few years later due to the rapid technological developments.

Human networked communication via the Internet has been labelled differently in the literature; the most widely used concept was computer-mediated communication (CMC), as in the beginning, such distance communication was mediated by computers. It was only recently that more mobile devices have been integrated. Much has been written about CMC across disciplines because the use of computers and the Internet was vital in all fields. Thurlow et al. (2004: 15) writes, “*certainly, by the 1990s personal computers had sprouted like mushrooms on the desks of office managers, school headers, college students, doctors, home makers, and so on*”. Technology, in fact, is not restricted to professional purposes as it was planned for but it spread to more usages and became embedded in people’s social practices.

Hence, CMC refers to communication between individuals or communities through the use of interconnected computers via the Internet (Lucipini, 2006). It includes electronic text-messages which can be supplied by visual and audio links (Derks et al., 2006). In addition, it fosters communication between people regardless of the various contextual barriers as it makes them less sensitive to differences, behave, and exchange information that is not otherwise conveyed in traditional face-to-face environments (cited in Zhou et al., 2004). CMC incorporates various forms of communication like text-based chat, email, instant messaging, blogs, video/audio conferencing, social networking sites, etc. (Tanaka, 2015).

In recent studies, however, labels like electronically-/technologically-mediated communication are employed instead and sometimes are used interchangeably (like in Rajah-Carrim, 2009; Gordon, 2011; Danielewicz-Betz, 2016, among others) as more and more handled devices gain popularity over computers. This shift of interest towards mobile technologies mainly tablets, iPods, and smartphones has been explained by the fact that they are better in terms of accessibility and practicability (Bicen & Arnavut, 2015). Smartphones are the most widely used devices due to the multiple services and applications they afford, their pocket size, usability, multi-functionality, the ability to have internet access, relatively low cost, their social value since they are being used for social purposes more than perceived as mere electronic devices, etc. (Bicen & Arnavut, 2015; Al-Otaibi, et al., 2016). Accordingly, whether mediated by computers or by new devices, human communication has been altered.

2.3. Communication in the Digital Age

The ‘Digital Age’ refers mainly to the period since the last decade of the twentieth century because since then information is relying heavily on technology. It is also called ‘Information Age’ or ‘Internet Age’ and it is associated with the arrival of computers, the

Internet, and the World Wide Web. Digital communication, as opposed to direct or face-to-face communication, has attracted users as well as researchers from different disciplines since it is a new kind of social behaviour, which requires the ‘technologisation of practice’ on the one hand and digital literacy on the other (ibid). It is crucial at this level to have an idea about some of the characteristics and types of digital communication that set it apart from traditional face-to-face communication.

2.3.1. Characteristics of Digital Communication

Distance communication mediated by technology dramatically affects the way people interact with others. They are not only different from face-to-face communication but considerable differences are manifested across different media of Internet communication, since each sub-technology has its typical characteristics, yet sometimes features overlap. Analysing the various technologies of communication exhibits fundamental qualities that distinguish between them. The first feature to be figured out is temporality/synchronicity since all kinds of networked communication through the Internet can either be synchronous or asynchronous (Riva & Galimberti, 1998; Smith et al., 2003; Baron, 2002; 2010; Tanaka, 2015).

In synchronous forms, communication takes place in a ‘real time’ to a certain extent, as it refers to online exchange of messages between interlocutors while they are present at the same time of sending-receiving content. Such feature can be found in online text chats and instant messaging (IM). The latter form has been developed in the recent years and it is gaining popularity thanks to the various applications provided, like WhatsApp, Viber, Imo, Messenger, etc. In other words, communication occurs simultaneously and it resembles, to a great extent, phone and face-to-face conversations.

Asynchronous communication, on the other hand, takes place in a ‘delayed time’ because participants do not receive and answer the message at the same time it was sent. Examples of technologies which include such feature are mainly emails and blogs (weblogs, online journals hosted on websites). This form shares similarities with traditional letter exchange. In practice, however, sometimes many users reply to emails, for instance, immediately, while answering messages sent through IM apps ⁽¹⁾ (which are originally designed to work synchronously) can occur at a delayed time especially when participants leave out messages when the addressee is offline (Baron, 2010).

Temporality of communication has attracted the curiosity of various researchers to uncover differences between the two genres, especially that it deeply affects the discourse as well as the behaviour of the interlocutors (Smith et al., 2003). When the piece of information is processed immediately by its audience, the sender carefully considers the consequences of the message and the receiver may feel more pressure to answer simultaneously in synchronous rather than in asynchronous communication. In addition, if compared to synchronous interactions, asynchronous communication allows for more time to reply; this prompts better understanding of content and thoughtful responses.

Another outstanding feature of the new media ⁽²⁾ of communication is the multiple modalities of information presentation they afford (ibid). Some technologies are based only on text-based exchange of messages, while in others the written text can be supplemented by audio, visual, and graphic services. Some social networking sites, like Facebook, have developed its affordances to include almost all these modalities and users have the choice to use what suits the nature of the content, the audience, the context, etc.

Anonymity is an important characteristic of networked communication and it differs considerably across the different sub-technologies (Baron, 2002; Smith et al., 2003; Tanaka, 2015). While some electronic modes invite anonymous participation like chat websites, the exchange of messages via emails, for instance, occurs most of the time between individuals who already know each other, if not the sender is required to accurately introduce him/herself. In other words, participant identity is blurred in such media as they involve not only known members but even anonymous and pseudonymous ones allowing hence for freer expression.

Last but not least, some online media of communication can be open to much wider audience, such as blogs, while others are limited, like emails because the sender decides when and to whom the message will be sent (Tanaka, 2015). In this respect, two categories of computer/technology-mediated communication are distinguished.

2.3.2. Types of Digital Communication

Baron (2002, 2010) classifies the different sub-technologies of Internet communication into two categories. This distinction is based on two major parameters, synchronicity and the number of participants involved (one-to-one or one-to-many dialogue). That is, sometimes communication occurs between only two interlocutors either synchronously or asynchronously depending on the medium, IM is the best example of the former and email

represents the latter. Synchronicity of communication can differ even in modes where communication takes place between more than one participants. For instance, web sites and blogs differ from chat rooms because while the former refer to communication of a group in a delayed time, the latter occur simultaneously. The following table displays some examples of types of networked communication explained in Baron (2002, 2010).

Table 1: Types of Digital Communication

Types	Synchronous	Asynchronous
One-to-one	Instant messaging	email, texting on mobile phones
One-to-many	chat, computer conferencing	web sites, blogs

Adapted from Baron (2010)

2.3.3. Comparison between Digital and Face-to-Face Communication

The ubiquity of communication technologies raises debates about whether or not communication via these new media is as successful as in face-to-face especially that on the one hand they share similarities because in both forms people come in touch. On the other hand, since interlocutors are not physically present when technology-mediated communication takes place, the transmission and the recognition of meaning is said to be hindered. Accordingly, questions about the issue started to float to the surface since the beginning of the phenomenon. The debate is more salient when considering text-based communication due to the fact that: 1) it preceded other forms which rely on the use of webcams, 2) it is widely used by people (Derks et al., 2007) even more than the use of audio-visual communication, and 3) because of the great differences between the two.

The most observable feature that distinguishes between the two modes is sociality or social presence (Short et al., 1976), which incorporates physical and social dimensions (cited in Derks et al., 2007). The former refers to the physical co-presence of interlocutors in the same place, while the latter refers to the extent to which interactants know each other. In this respect, communication via text-based media implies the absence of features like body contact and visibility which play important roles in encoding and decoding messages. In addition to distance, anonymity in most media widens the gap between participants. Consequently, much research focuses on lack of social presence and social context cues and claims that such communication reduces the ability to adequately express/recognise social and emotional content (Squires, 2003).

Moreover, early research on text-based electronic-mediated communication claims that the most important consequence of the lack of social presence is the relative absence of non-verbal cues. In fact, self-expression as well as interpretation of verbal information relies heavily on encoding and decoding paralinguistic displays. Besides, meaning may not be fully transmitted or sometimes it can even be transformed as a result of the lack of non-verbal cues (Hancock & Dunhum, 2001; Derks et al., 2007). In other words, misunderstanding is more likely to happen in these media than in face-to-face communication. Proponents of the idea believe that to overcome these constraints, interlocutors often need more time and more messages to have similar relational effects like that of face-to-face contacts.

Research about the issue has evolved with the development and the proliferation of the various technological media of communication and results indicate that sometimes interaction via these media is socially desirable and more interpersonal than in real life (Walther, 1996). In fact, anonymity and reduced visibility in digital communication foster people's self-expression and hence the recipients' understanding, because participants do not know each other and it is more difficult to express emotional content offline (Derks et al., 2007); unlike what has been assumed previously that these features hinder the transmission of social and emotional content.

Further, Walther (1992, 1996) believes that as much as relationships take time to develop in 'real life', so they do offline. He argues in his 'social interactive processing' model that online relations develop with time and constraints dissolve after extended periods of technology usage. Similarly, Stafford et al. (1999) criticise previous research methods as they followed offline-biased framework, which does not fit technological contexts. The striking differences between the two channels of communication should have been taken into account.

As far as non-verbal cues are concerned, digital communication is said to have its own version of paralinguistic displays since users adapt to the new electronic context and use creative strategies to overcome its constraint (Walther & D'Addario, 2001; Baron, 2002, Thurlow et al., 2004; Crystal, 2006; Derks et al., 2007). This may require a new kind of knowledge, in addition to linguistic and communicative competence, in order to communicate appropriately in these digital environments of communication. Non-verbal signals online include timing aspects (impression formation is shaped by the time of sending, receiving, and answering messages); frequency of messages; inserted pictographs, and typographic marks (Liu & Ginther, 2001).

Emoticons are among the products of the new media of communication to substitute the absence of some visual information like facial expressions. Such products have evolved since then and are widely used by people, like autocollants/stickers and emoji. In this respect, Derks et al. (2007: 7) believes that:

There is no evidence to assume that emotions are absent or even difficult to communicate in CMC compared to F2F. Although there is no evidence directly and systematically comparing conversations on the same topics in F2F and CMC, the indirect evidence with regard to the success of internet dating [...] and studies of gender differences in language styles online clearly illustrate that emotions are talked about freely in CMC-based interactions as in F2F interactions.

In a nutshell, comparison between digital and face-to-face communication is in fact not made on solid basis as both forms have their own features in spite of their similarities. These technological media proved to be highly interactional and the best evidence of this claim is their popularity especially amongst the youngsters. Arguably, social networking sites are among the most widely used forms of communication media due to the multiple services they afford and due to their potential social importance as they are typically used for establishing and maintaining relationships. The ubiquity of these media is a witness that digital communication does not lack social presence or social context cues but rather it has its own substitutes. This is an indication that it is as successful as real-life communication and it is more fascinating.

2.4. Social Networking Sites

Social networks, that link between people who share some kind of relationship or affiliation, have evolved after the spread of social networking technologies such as landline based telephones, mobile phones, as well as the various Internet services such as chatrooms and online games. Recently, however, social networking sites like Facebook, Skype, Bebo, Twitter, Instagram, etc. have captured public interest, subscription, and participation due to the range of seducing affordances they provide. In other words, social relations are no longer restricted to traditional face-to-face networks but rather the digital environments, because of their social potential, are attracting people to build new forms of networks.

Most of these websites support the maintenance of the pre-existing social relations and they also contribute to the establishment of new networks based on similar interests, needs,

views, etc. (Boyd & Ellison, 2010 cited in Chen et al., 2013). Participants in such media join others online with great number of purposes in mind, most of which are limited to communicating with friends, making new friends, and sharing personal information and material (Lenhart & Madden, 2007). In other words, these socializing dimensions make of these services not mere technologies linking between people but rather they became typically social in nature as they are deeply embedded in their social practices.

Users of such Internet-based communities can post multimedia information about themselves like username and photograph, share content, and communicate via sending public or private messages (Shen et al, 2013). They can also broaden their network of ‘friends’ beyond traditional borders since they are increasingly allowing relations across the globe and from all walks of life. These factors, among others, make of such forms of interaction very popular and global and they reshaped interpersonal communication in addition to other human behaviours in a way that suits the digital contexts. In fact, their features are not only attracting participants at the world-wide scale but they are also triggers of curiosity for research from different disciplines. In the literature, different definitions of social networking sites have been proposed.

2.4.1. Defining Social Networking Sites

Due to the complex nature of these sites, definitions vary greatly, some of which emphasise their collaborative and communicative capabilities while others take into account their structural characteristics such as profiles, uploading photographs, comments, status updates, etc. (Mazman & Usluel, 2010). The most widely accepted definition has been proposed by Boyd & Ellison (2007: 02) who believe that social network sites are “*web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system*”. Accordingly, three crucial elements are involved, the user’s profile, list of contacts/friends, and traversing lists of contacts.

These are outstanding elements in the websites as they constitute: first, the sense of identity/self-presentation because users can choose what to say about themselves in their profiles within the system. Second, relationship formation either at a small scale (represented in the participants’ list of friends) or via, third, traversing these lists and making hence new networks. In fact, the capabilities provided, namely identity representation and social

networking, reveal human's social nature on the one hand and the socializing character of these sites on the other. This can be one of the factors why social networking sites are phenomenal, popular, and global.

Boyd & Ellison (2007: 02), however, deliberately avoid the term *networking* and they use *network* instead because the former emphasises relationship formation especially with strangers. They believe in this respect that "*while networking is possible on these sites, it is not the primary practice on many of them, nor is it what differentiates them from other forms of computer-mediated communication*". Beer (2008) argues, on the other hand, that it is the 'networking' feature that sets apart these sites from others like YouTube.

Interestingly, others also consider the communication services that the sites allow, as people tend to live in communities rather than individually. According to Das & Sahoo (2011: 222) "*online social networking is a type of virtual communication that allows people to connect with each other. This concept arises from basic need of human beings to stay together in groups forming a community*". In other words, most researchers agree that establishing and maintaining relationships is one of the important features for the popularity of these sites since they suit human's sociability. Boyd (2007b: 03), in this respect, assumes that social network sites are forms of 'mediated publics', "*environments where people gather publicly through mediating technology*". In other words, mediated by technology, people gather online and form communities of common interests and shared features like location, ethnicity, race, etc. within the same site.

Accordingly, social networking sites are environments where people meet online with less temporal and geographical constraints constituting thus communities mediated by technology. In general, public spaces have many social purposes as they make sense of the social norms that regulate society and they are arena where people can express themselves and learn from the reactions of others (cited in Boyd, 2007b). Social networking sites, in this sense, are forms of public spaces that gained huge popularity in a short period of time due to the various characteristics they entail.

2.4.2. Characteristics of Social Networking Sites and Factors of their Ubiquity

Social networking sites exhibit an extraordinary growth as they are being adopted rapidly by millions of users from different strings of society. In fact, what is amazing about this is not only the population they attract but also the extent to which they are integrated into

human's social life as they became deeply embedded in their everyday practices. Bodroza & Jovanovic (2015: 425) believe in this respect that "*they [social networking sites] are interlaced with our private life, relationship, friendships, job, school, hobbies, everything*". That is, they found a place in people's daily lives since their role is not reduced to the exchange of information; they became however an opportunity to fully participate with others (Department for Communities and Local Government, 2008). So, why have these sites become so popular and what has driven millions of users to participate in these digital environments?

Answering such questions is not an easy task to do as several factors are involved and covering all of them might be impossible. To start with, the development of these sites is mainly due to the advent of web 2.0 technology, which "*describes the trend in the use of the World Wide Web for creative and two-way interaction amongst users*" (ibid: 08). The development of the devices used for access also has to do with the ubiquity of these social media. Indeed, the emergence of mobile devices has fuelled their proliferation not only as far as when and where they are being used are concerned but also, they spread to different portions of society. In other words, determined by fixed computers and then laptops, people were not free to connect the time and place they wanted. Recently, however, this is no longer an obstacle because technological developments enable, relatively, anytime/anywhere access.

The most widely used mobile devices are smartphones. What is striking about this is that due to their small size, they are used by people even while walking in the street, sitting in a bus, or laying in a bed to access any website they want. In addition, their ease of use and relatively cheap cost allow for rapid adaptation, not only by youngsters and techno-literates but other groups are also actively taking advantage such as old people and those with little education. Accordingly, this provides an opportunity for digital equality (ibid). Furthermore, another important factor is that most social networking sites allow free subscription and participation. Besides, people in these social media are able to create, share, view content and collaborate with others who share common interests without bothering themselves by managing their own websites and setting them up (ibid).

In addition to the aforementioned technical factors, the ubiquity of these practices is also the outcome of the networking feature itself (ibid) as participants are able to form networks with pre-existing friends as well as with new ones across different political, geographical, cultural, linguistic, and ethnic borders. In other words, features like socialisation and identity

formation (De Zwart et al, 2011), revealed mainly in people's online profiles and networks, provided within these digital environments meet with the human's social nature. Moreover, the socialising dimension of these sites is reinforced by the new and varied modes of communication as a result of the steady developments in the multimedia applications and services; involving texts, images, audio, and visual contents. In fact, most capabilities and services provided within these sites have been increased thanks to inviting hundreds of computer-programming developers to enhance their applications (Nassif, 2009).

Thus, the range of multimedia services provided online become powerful tools used by people to express their identities, views, and ideologies and to learn about others in the world. These sites enable participants to manifest incredible creativity and to show their talents such as poetry, prose-writing, music, video making, etc. since they provide easy and free environments in addition to a large, potentially global, audience. Besides, they are used also by famous people like political activists, singers and actors who attract millions of followers and fans. Among the most widely used social networking site is Facebook, which has attracted an amazing popularity a short period after its creation.

2.5. Facebook

People from different backgrounds can join Facebook and transmit their real-life experiences into a virtual world, which constitutes interesting affordances, services, and applications available for its users without any cost or effort. A short time after its creation, Facebook could take over the popularity of the previous-widely used sites, namely MySpace, Friendster, LinkedIn, among others. In fact, Facebook has not only attracted a great number of registered users in a short span of time but it became part of their daily lives, as it is deeply embedded in their social practices. Indeed, it has risen to be the top social networking site, with 85% of social media users (cited in Sanchez et al, 2013), and ranked the second largely used site in the world after Google (cited in Al Omoush et al, 2012). More than that, it has over 1.26 billion users worldwide (Smith, 2014).

In spite of its huge popularity, Facebook's history dates back only to February 2004, launched by a Harvard undergraduate Mark Zuckerberg. It originally linked college students at Harvard, yet its services have been expended since then to include gradually other colleges in the USA (Croft, 2007) and added support later on to other participants such as high school students (ibid), to reach after that anyone who has a valid email address (Brenner, 2013). Recently, subscription in Facebook does not even require an email account as it is

subsequently opened up to participants with phone numbers. Moreover, with the technological developments, logging in the site is not limited only to computers because smartphones are widely used and they are replacing computers.

Several practices and activities are provided to users within Facebook. After joining/subscribing in the site and having a personal account, Facebookers (a term used to refer to Facebook users) can update their profile information, invite friends (members in the users' list of contacts are identified as friends), accept or reject friendship requests, communicate with other Facebook users (users can communicate with other members in the site even though they are not friends in Facebook, they have just to be both registered in it), upload photos, update status (communicating one's thoughts, location, etc.), share/exchange content (pictures, videos, links, texts, and so on), comment on content, tag friends, use or develop applications within Facebook such as games, create or join Facebook groups and pages, which are based on several objectives that can be professional, political, social, cultural, etc. (Jones & Soltren, 2005; Mazman & Usluel, 2010; Davenport, et al., 2013; Kamnoetsin, 2014; Michikyan et al., 2015). What is particularly important to deal with, due to their correlation with the research objectives, are personal profiles, communication, and social networking on Facebook.

2.5.1. Facebook Profile

The personal profile (previously called the wall), that is created right after registering in the site 'www.Facebook.com', "*includes any information you choose to make available*" (Anderson, 2008: 02). In other words, participants often chose what to say about themselves by answering a series of questions in order to be accepted as a member in Facebook (Nassif, 2009). Profile information can be divided into different categories, including contact, personal, and professional information, as well as a picture (Jones & Soltren, 2005). Facebook also includes 'privacy settings' in which users can manage their profiles (Jones & Soltren, 2005). Interestingly, developers integrate new features to the site each time. For instance, updating status now is possible with a range of manners, unlike before.

Actually, users can update their status each time, "*the status updates are short user-generated public messages that generally contain information about what the FB [Facebook] user is doing or thinking at that point of time, i.e., what is on your mind?*" (Ryan & Xenos, 2011 cited in He, et al., 2014: 69). That is to say, in addition to the information provided about the users in their profiles, status updates communicate important information as well

and what is more interesting is that they often link the users' virtual identity with the real world since online contexts are used most of the time *"to address some of the key developmental issues that they face offline"* (Michikyan et al., 2015). Statistics indicate that more than 300.000 status updates are published every minute and users can write up to 60.000 characters about their feelings and experiences in status updates (cited in Lin & Qiu, 2013).

Personal profiles on Facebook also include the pages and the groups that users joined, have been invited to, or/and created. These constitute online/virtual communities that gather on certain bonds, which can be linguistic, cultural, political, economic, social, etc. That is, through the personal profile, one can join any community he/she is interested in (if he wishes to do so). Facebook Pages are one of the recent services provided within the site, they are *"a way to create a sort of profile for business, band, or product that can be managed and modified by one or more Facebook users"* (no name, n.d.). Similarly, Facebook groups are also sorts of profiles that can be managed and modified by one or more Facebook users and they are also based on specific bonds. Yet, the major feature that distinguishes between pages and groups on Facebook is that in the former only admins (managers) can post content while the members only comment, share, like, tag others, etc. The latter, on the other hand, give the opportunity to all members to participate through posting and updating status in addition to the admins. Interestingly, these online communities constitute arenas where people can network and communicate with others in digital environments.

2.5.2. Communication and Social Networking on Facebook

Networking is one of the most important features of Facebook as it facilitates users' connectedness. People can form communities online through sending and accepting friendship requests as well as through joining Facebook groups and pages. Accordingly, due to the ability of sending invitations to others and choosing to accept or not others' requests, members of Facebook can control the size of their friend network (Davenport, et al., 2013). Networking on Facebook is not based only on establishing new relationships online but rather, it is mainly comprised of expanding real-life connections into the virtual world; i.e. it enables maintaining pre-existing relationships (Lin & Qiu, 2013). These webs of interconnected members have a range of communication and interaction possibilities provided within the site (Shih, 2011 cited in Kamnoetsin, 2014).

Indeed, Facebook is rich with its seducing communicative capabilities. In addition to the aforementioned means (status updates, tagging friends, uploading/sharing photos and videos),

users can also comment on others' posts, interact via exchanging private messages to the inbox, and chat online (Kamnoetsin, 2014). So, communication in Facebook can be public, semi-public or private. This goes in tune with Baron's (2002; 2010) distinction between one-to-one and one-to-many types of computer-mediated communication. Moreover, these various forms of communication can be classified under two major categories, synchronous or asynchronous. The former includes private instant messaging that can occur either between individuals or groups. Facebook has recently developed this service by integrating a new application service specific for instant messaging called Messenger. Asynchronous communication, however, includes all other forms in which communication takes place in a delayed time such as comments, status updates, and sharing content. Yet, synchronous and asynchronous distinction is not really a clear cut as there can be an overlap between the two.

Hence, communication via Facebook is bidirectional as it is based on mutual consent (Lin & Qiu, 2013). Interactivity on Facebook as well as most social networking sites has been the result of the development of web 2.0 technology, which *"refers to a newer, better version of the World Wide Web. This new generation of WWW places emphasis on interactivity, co-creation, and the active role of website users, as user participation is considered to be one of the key notions of digital culture"* (Deuze, 2006 cited in Courtois et al., 2009: 109-110). That is to say, members in the digital environments of communication are not mere passive receivers of information but rather they are able to construct, share, and upload content as well as interact with others.

Interestingly, interaction via Facebook exhibits rich multimedia features, including text, voice, and audio-visual messaging. However, Hsieh et al., (2013: 397) believes that *"not all audiences expect or prefer the use of multimedia. This depends on the cultural background of the users"*. Facebook also supports multimedia content as the site is designed primarily to enable users to share and exchange multimedia content like texts, pictures, videos, music, etc. Another form of interaction on Facebook is manifested in users' comments on others' posts as well as their likes, anger, sadness, etc. once they click on one of the choices available right below the post.

These features, in fact, should not be taken for granted since they highlight an overlap between technological and social dimensions of social networking sites in general and Facebook in particular (Mazman & Usluel, 2010). Consequently, Facebook is described as *"a social utility that connects people with friends and others who work, study and live around*

them” (Simonpietri, 2011: 04). Croft (2007: 02) also believes that Facebook is “*the social operating system for the Internet*” because it constitutes an online environment where people manifest several social practices and behaviours and where they are governed by social norms as well. Al Omoush et al. (2012: 2390) argue, in this respect, that “*SNSs [social networking sites] emphasise the social dimension of online environments by promoting interaction among people that is primarily founded upon norms of everyday interaction adapted to the online setting*”. This raises a major question as far as the research before hands is concerned: does this mean that online interaction is an extension of offline interaction with adapting its norms according to what suit the digital environment?

In fact, people started admitting the indispensable value of technology in their lives and they have observed that it has altered the way they study, work, shop, etc. Technology has also transformed social interactions and human relations in an unprecedented way especially amongst the youngsters. Yet, it is not only technology affecting people but technology is being shaped by the context in which it operates. In other words, “*the effects are not unidirectional, i.e., technology affecting individuals but interactive. Intrapersonal and contextual forces are likely to interact with communication technologies in complex ways*” (cited in Durkin et al., 2009: 176). Hence, the subsequent sections shed light on the sociolinguistic consequences of the interaction between technology and contextual forces to explore how it structures language use and how language varies across the different media of communication, on the one hand, and how it is being adapted, in turn, to the context of its use, as research indicates that offline sociolinguistic phenomena are represented online.

2.6. Online Communities

Online communities are amongst the controversial issues that have been tackled after the proliferation of technology-mediated communication. People doubt the adequacy of labelling human gatherings and communication via the Internet as communities; since they believe that the concept has some defining features that have been blurred and sacrificed online and this will inevitably lead to the destruction of communities in their traditional sense (Stratton, 1997 and Lockard, 1997 cited in Thurlow et al., 2004). Several features of online contexts have been taken as arguments for the assumption that Internet-based groups are not ‘proper’ substitutes of ‘real’ communities. In addition to the lack of physical presence, online communities lack stable membership, long-term commitment, and moral cohesion (Jones 1995a, 1998 and Stegbauer, 2001 cited in Androutsopoulos, 2006).

In response to the ideas that online practices affect negatively offline communities, Baym (1998, 2000) points to the lack of empirical evidence to confirm this claim, as current social changes, in fact, are the result of several factors (social, political, economic, etc.) and they are not exclusively the outcome of the digital impact. Besides, Rheingold (1993: n.p.) believes that *“CMC liberates interpersonal relations from the confines of physical locality and thus creates opportunities for new, but genuine (...) communities”*. In other words, belonging to a community is no longer determined by physical proximity, since people can be part of several communities at once without the need to be physically present, thanks to the Internet. In addition, research indicates that people establish long-standing and meaningful social relationships online because their relations today are not restricted only to offline contexts. In spite of these arguments, it is not yet clear what a community online really means and what are its defining features, as in the literature it has been defined in many ways. Yet, these definitions have several elements in common.

2.6.1. Defining Online Communities

Rheingold (1993: 5) assumes that online communities *“are social aggregations that emerge from the Net when enough people carry on (...) public discussions long enough, with sufficient human feelings, to form webs of personal relationships in cyberspace”*. Hence, with much people spending much time online, such frequent social interactions lead inevitably to the creation of Internet-based communities, which are characterised by their specificities. Likewise, Shaffer and Anundsen (1993 cited in Palloff and Pratt, 2007: 27) define community as;

A dynamic whole that emerges when a group of people share common practices, are interdependent, make decisions jointly, identify themselves with something larger than the sum of their individual relationships, and make a long-term commitment to well-being (their own, one another's, and the group's).

That is, the term community is no longer used just to refer to place-based context nor does it concern only a group of people who have to meet face-to-face and who have to adhere to the norms of that community at the expense of their uniqueness and individual identities.

Traditionally, involvement in a community was determined by the place where people live, their family, or religious belonging (Palloff and Pratt, 2007). However, the concept today is perceived differently and it is not necessarily based on locality or territoriality. Communities are, rather, formed around issues of identity and shared values (Palloff, 1996).

Anderson (1983 cited in Thurlow et al., 2004) also believes that communities are not about numbers and places but on activities and feelings. In addition, involvement in a community requires a ‘conscious commitment’ to a group, meaning that, according to Shaffer and Anundsen (1993 cited in Palloff and Pratt, 2007), a community requires personal growth and transformation of its members, as well as of its social and virtual characteristics.

Furthermore, people participation online in discussions about different issues, goals, ethics and so on also lead to the creation of a conscious community because even electronically, people can be governed by norms through which the community operate (ibid). Palloff and Pratt (2007) believe, in this respect, that collaboratively negotiated norms in an online environment can be even more critical as they constitute the platform on which the community is constructed; especially that members do not generally meet face-to-face and those norms in the virtual world are crucial as guidelines to be followed and respected because they can help the group move forward. In fact, with the advent and the development of the various forms of digital communication, it has become even more difficult to determine what the term community means exactly. Sense of belonging and maintenance of membership in a virtual community entail, actually, a very different process and can be more difficult for some people to achieve (ibid).

Consequently, some theorists believe that comparing online to offline communities is not made on solid basis and would be misleading as they do not involve the same processes of membership and commitment. In this respect, Castell (2000: 389 quoted in Androutsopoulos, 2006: 422) assumes that virtual communities “*do not follow the same patterns of communication and interaction as physical communities do. But they are not ‘unreal’, they work in a different plane of reality*”. That is, online communities have to be understood in their own terms instead of comparing them to different frameworks of human aggregations.

2.6.2. Frameworks of Online Communities

Though communities online have been defined differently in the literature, these definitions often include several common elements which include sets of conditions that have to be satisfied in building a community. Baym (1998: 62) argues that an online group is to be considered as a community when members “*create and codify group-specific meanings, socially negotiate group-specific identities, form relationships (...) and create norms that serve to organize interaction and to maintain desirable social climates*”. That is to say,

communities online are constructed on important elements, including forms of expression, group identity, relationship between participants, and conventions that members adhere to.

Similarly, Herring (2004 cited in Androutsopoulos, 2006) identifies six dimensions on which a virtual community operationalise: active participation; exhibition of different roles, rituals, and hierarchies; shared history, culture, norms, and values; group-specific characteristics which identify it as an entity and differentiate it from other groups; solidarity and support among members as shown in practices like humour, politeness, and reciprocity; finally, criticism, conflict as well as conflict resolution. As shown in these dimensions, features like sense of belonging to a group, norms governing members' participation, interaction between users, etc. are important features in the formation of a community online.

Consequently, Danet and Herring (2007: 7) view "*Internet users as members to one or more speech communities who bring to their online encounters shared knowledge, values, and expectations for linguistic interaction*". Hence, digital communication does not only liberate its users from the confines of physical locality but it also enables them to be members in different communities online because they do not have to be physically present somewhere. This also brings to mind the fact that geographical borders differ from linguistic ones (ibid). In other words, one can be physically present in a country and belongs to other communities abroad via the mediation of language. Actually, understanding online communities requires taking into account their "*consistent and distinctive language practices*", which include group-specific vocabulary, forms of non-verbal displays, among others (Baym, 2003: 1016).

Language, thus, plays a great role in the construction as well as the persistence of a community especially in a virtual context where members rely heavily on language to maintain membership though they are not physically present. In fact, the issue of language use in the electronic environments of communication has attracted the attention, praise, and criticism of many people. The advent of the Internet marked a revolution in all fields, not only as a technology which facilitated human communication and information exchange, but it has also revolutionised human life in general and language use in particular.

2.7. Language Use in the Digital Environments of Communication

The popularity, the ubiquity, and the necessity of the Internet in people's everyday communication have boomed controversial attitudes especially as far as its effects on the cultural and linguistic features are concerned. People online are exposed all the time to foreign cultures, which may lead gradually to the hybridisation or change of one's culture

resulting accordingly to a loss of genuine cultural identity within such rapid global changes due to the invasion of the Internet, with its double-edged effects, to human life. Equally important, language has also been affected dramatically since the introduction of the technology with its multiple media of communication.

Arguably, Internet has had the lion's share of all the factors that led to revolutionary changes in human language throughout its history. Previously, communication technologies like printing, telegraph, telephone, radio, and television also affected language, yet no one of these led to such radical changes that the Internet reached. Consequently, comparison between face-to-face communication and digital language use has generated issues with a great deal of debate amongst researchers as well as ordinary people, especially as far as the emergent linguistic features that characterise Internet interaction are concerned. So far, reviewing the linguistic consequences of the Internet is crucial, so that conclusions can be drawn.

2.7.1. What Makes the Internet an Arena for the Spread of New Linguistic forms?

Internet's interactive, electronic and global nature provide users with various new ways of linguistic practices and shape language use as well (Crystal, 2006a). Actually, the development of these new media of communication with the services, applications, and affordances ⁽³⁾ they provide has been as rapid as the spread of fire in fuel. A few years ago, users of these technologies were determined by the limited number of characters that the computer keyboard contains. Nevertheless, they could use these characters to establish and maintain relationships with others. Now, the keyboard is no longer an obstacle for them since users have got acquainted with such means of communication and they could develop their own competencies to cope with this digital reality. In addition, the advent of other technological devices such as tablets, smartphones, etc. have reinforced these communication skills, which are mainly the product of the digital environments of communication.

Eventually, the limited number of the keyboard characters is not sufficient to transmit the sender's real intentions. Even the small size of the screen reduces the receptive linguistic capacity. Furthermore, communication is not a mere encoding and decoding a set of symbols, it entails other parameters as well, especially interpreting paralinguistic cues (like facial expressions, tone of voice, physical appearances, etc.) which ameliorate comprehension; bearing in mind that text-based online communication was the first to emerge and develop. In spite of the availability of audio-visual services later on, text-based media are still more popular and widely used due to cultural factors, among others. Hence, text-based electronic

communication was perceived by people negatively as they often compare it to face-to-face contexts. Therefore, non-verbal cues are said to be not adequately represented in written conversations and participants often need to write more or clarify to avoid misunderstanding.

Interestingly enough, by the advent of the Internet, not all languages were represented as it was based on a Roman character set; i.e. languages with non-Latin scripts were neglected. So, the Internet was not really a global technology, as several communities were victims of a digital divide ⁽⁴⁾ because it was in the hand of its inventors. The other languages started to be gradually represented later on. Despite this technical constrain, speakers of these technologically-marginalised languages used the Internet for communication, either through adopting its ‘lingua franca’ or using ‘Latinised’ scripts to represent their languages. In addition, the immediate nature of most text-based technologies of communication also determines language use, since people type messages as if they were speaking. In other words, people try to be as rapid in typing and sending the message as possible. This leads them to sacrifice several writing features for the sake of reaching a speech-like interaction.

Nevertheless, the use of Internet is increasingly prevalent in people’s everyday communication and the rapid proliferation of these new media has been energised by several factors, such as the seducing applications and services provided; multimodal communication possibilities (text-based, audio-visual, sharing and exchanging content – videos, images, texts, etc.); its relatively cheap cost that makes it affordable for anyone; ease of use, as it is not monopolised by some categories of society like techno-literates, educated people, or youngsters; it can be used at any time and in any place because it can be used via any handled communication device. Besides that, Internet has facilitated human communication in an unprecedented way. It does not only bridge the gap between geographical, cultural, ideological, religious, and linguistic boundaries but it also increases human’s sociability, as it flames the establishment and the maintenance of relationships. Actually, these factors do not only contribute to the rapid adoption of these digital communication technologies, but they lead to immediate, immense, and global effects on language. In addition, due to the digital nature of communication, language is used alongside many other multimodal elements such as colours, pictures, emoji, special use of linguistic forms and languages for meaning construction. Therefore, understanding language use online requires taking into account the new digital context as well as the multimodal elements and their functions within discourse since elements are regularly used to fulfil specific roles.

2.7.2. Multimodal Discourse Elements Online: Structural Features and Functions

The new features that language is acquiring in the digital media of communication have attracted the attention of scholars from different disciplines. The abovementioned characteristics of the digital contexts of language use made of the Internet an arena where new linguistic forms emerge, as linguistic behaviours are no longer restricted to their traditional contexts. People online try to adapt to these digital features using stylistic strategies, some of which have never existed before and are mainly the product of the technology. However, considering only the linguistic character of communication online reduces our understanding of digital discourse, which is becoming increasingly multimodal.

The insertion of different multimodal elements in one text is the main aspect that characterises most digital environments of communication. This has urged the need to reconsider our conception of what a ‘text’ really means ⁽⁵⁾. In this respect, Jones (n.d.: 38) states: *“as new forms of media are developed which allow people to mix modes of communication in new ways over time and space, our whole idea of what we mean by a text or a conversation is beginning to change”*. One of the advantages of Web 2.0 is that people online can create their own content, unlike in many print-based media. So, it is becoming relatively easy for users to communicate with others via producing multimodal texts, as they can mix languages, images, and videos and they can even have a great deal of command over other important textual elements such as colour, layout, and font (Barthon and Lee, 2013).

Actually, the integration of the multiple modes ⁽⁶⁾ employed within discourse serves as a supplement to the shortcomings of using each mode independently. Jones (n.d.) believes in this respect that the different communication modes have different sets of ‘meaning potential’ due to their affordances and constrains. He further states:

The fact that different modes make different kinds of meanings more possible and others less possible is one of the reasons why people strategically mix different modes when they are communicating, so that the constrains of one mode are balanced out by the affordances of others. While there are somethings that ‘just cannot be expressed in words’, it might be possible to express them with a carefully timed facial expression or a carefully placed image (ibid: 89)

That is to say, in a digital environment where communication is predominantly text-based and interlocutors are not physically present, relying only on language might not be really successful, for it cannot convey meaning as it should be and this may lead to

misunderstanding and misinterpretations. For that reason, images, emojis, colours, stylistic use of scripts, exaggerated use of punctuation marks, and repetitions of letters are often employed alongside language as supplies for meanings that cannot be transmitted otherwise. Yet, the function of these communication modes is not only to supplement shortcomings of others, but rather they may have several other functions within discourse (see details below).

In addition, affordances of different semiotic modes combined in different ways, can mean different things to different people (Barthon and Lee, 2013), especially because interpretations of discourse rely primarily on users' socio-cultural background. In fact, subsequent studies of CMC attempt to shed light on the interplay between language use, technological affordances, and the sociocultural context in which digital discourse operates instead of providing mere linguistic descriptions because observing words within texts online cannot account for what content construction really mean in people's daily lives.

Indeed, language is a vehicle of social practices and this is salient online, where texts are central. And since most social practices have moved online, texts are becoming pervasive in all domains of life ⁽⁷⁾. Accordingly, understanding language use in digital contexts involves not only analysing linguistic features, but the ways texts are created and used are also crucial; for in a textually-mediated world, *"texts are part of the fabric of social life"* (Barthon and Lee, 2013: 11). In other words, text-making practices, *"the ways in which people choose and transform resources for representing meanings in the form of texts for different purposes"* (Lee, 2007: 289 quoted in Barton & Lee, 2013: 166), become even more important than the text itself. So, what really matters in digital discourse is not only the linguistic features of texts but the ways texts are constructed and used are also crucial because understanding language use online requires taking into account all components of communication alongside the digital and the socio-cultural context of text-making practices.

The following sections present the most widely used discourse elements in the digital environments of communication. This is important as far as the research aim is concerned since it shows the interplay between linguistic, digital, and sociocultural elements in text-making practices for the sake of communication. For that reason, all components of discourse are to be considered in the way they are combined together in the same text and in their context. Different multimodal elements, their structural features and functions are tackled: 1) non-standard typographic forms, 2) exaggerated use of punctuation marks and letter repetitions, 3) emoticons, emojis, and stickers, and 4) Internet memes.

2.7.2.1. Non-Standard Typographic Forms

What is commonly observed online is the overwhelming use of “*non-standard orthographic and/or typographic forms*” (Thurlow & Brown, 2005: 6), because people do not follow the standard spelling of words. This form of language use is typically found in texting (Farina & Lyddy, 2011). They are mainly the outcome of the immediate nature of communication in most media, on the one hand, and the relatively small size of the device’s screen, on the other. In using such forms, people try to preserve time and energy in order to be as rapid as speech in typing the message (Crystal, 2001a; Thurlow et al., 2004) and to be as concise as possible due to the electronic nature (small space provided and the limited keyboard characters) of the devices used (a computer, laptop, smartphone, tablet, etc.). The non-standard linguistic usages that spread online have been classified into different categories. The most conventional models (summarised and explained with illustrations bellow) have been proposed by Thurlow & Brown (2005) and Farina & Lyddy (2011).

- **Shortening:** users often omit end letters from commonly known words like in *feb* (February), *sis* (sister), *bro* (brother), *gram* (grammar).
- **Contractions:** some letters within words, especially vowels and silent letter, are also dismissed because people can infer their meaning despite the absence of these letters. For example: *gd* (good), *nxt* (next), *yr* (your), *tmrw* (tomorrow), *msg* (message), etc.
- **Clippings:** this refers to dropping final letters such as final ‘g’ in *goin* (going), *comin* (coming), *thinkin* (thinking); silent final vowels like *hav* (have), *ankl* (uncle), *wher* (where), and final consonants such as *wil* (will).
- **Acronyms and initialism:** words are shortened to their initial letters so that whole phrases and long expressions are reduced to include only the initial letters of all the words. If compared to initialisms, acronyms are more formal shortenings. For example, *NATO* is an acronym for North Atlantic Treaty Organisation and *DI* stands for a Detective Inspector. Lots of similar usages have spread online, yet they are not formal as they are used, most of the time, only in these communication environments. People use just the initial letters like *ASAP* instead of as soon as possible and *LOL* instead of laughing out loud, etc.
- **Non-conventional spelling:** this is found mainly in letter-sound correspondence like in *sum* (some), *cum* (come), *fone* (phone) and in typos such as *exelent* (excellent), *rember* (remember), *adicted* (addicted). In addition, some words are also typed in the way they are pronounced, for instance *wen* (when), *sori* (sorry), *skool* (school), etc.

- **Letter/number homophones:** They are also referred to as logograms or phonetic reductions in which people use a letter or a number to represent a word or part of it because of the similarities between the pronunciation of that letter/number and the word/part of a word. For example: **b** (be), **u** (you), **r** (are), **1** (one), **2** (two, to, too), **4** (for, four), **cu** (see you), **gr8** (great), **2gether** (together), **2day** (today), **b4** (before), etc.

Interestingly, these linguistic usages are not the product of these new media of communication since they have long been part of the written tradition (except for letter/number homophones), especially in note taking. They have developed and spread later on in mobile phone texting, commonly known as SMS (Short Message Service). Due to the constraining small cell-phone's screen and the limited number of characters allowed for texting (160 characters), people were obliged to find a strategy so that the message will include less text. Therefore, such non-conventional spelling forms have spread more than ever before and they have been transmitted then to the online usages. It should be mentioned also that these non-standard forms of language use are universal as all languages have been subject to these new technologies and, accordingly, to these new linguistic practices.

2.7.2.2. Exaggerated Use of Punctuation Marks and Letter Repetitions

Similar to traditional writing, non-verbal displays such as intonation, stress, sarcasm, laughter, anger, tone of voice, etc. also cannot be represented in text-based EMC, at least in their traditional sense. However, people could adapt to the electronic nature of the media and developed stylistic graphic strategies to overcome the technological constraints (Walther & D'Addario, 2001; Derks et al., 2007; Baron, 2002; Thurlow et al., 2004; Crystal, 2006a). Unlike the non-standard typographic forms, these strategies are said to be the product of the new technologies of communication.

The small number of the keyboard characters, the small size of the screen, and the limited space of writing became, hence, sources of inspiration for new forms of self-expression instead of being constraints to effective communication. Thurlow et al. (2004: 124) believes in this respect that language use online “*reveals a speech community that enjoys playing with the possibilities of the keyboard*”. Shouting, anger and speaking loudly, for instance, are represented sometimes via the stylistic use of capitals and spacing (Crystal, 2006a), e.g. I SAID NO - W H Y N O T. In addition, repeated punctuation marks (like ??????? ?!!!!!!) and repeated letters (such as hhhhhhhhhhhh – hiiiiii) are often widely used

and they have significant meanings (ibid). These exaggerated spellings and punctuation marks also manifest a global use.

2.7.2.3. Emoticons, Emojis, and Stickers

Digital communication gave birth to new forms of linguistic behaviours that have never been used before and that have received a great wealth of scholarly investigations. People could make use of the limited keyboard characters available for them to get in touch with others despite the fact that it was barely impossible to communicate nonverbal cues in text-based contexts. Letters, punctuation marks, and some symbols were combined together in creative ways to construct what is referred to as ‘emoticons’ in order to surrogate the absence of facial expressions (Baron, 2002; Thurlow et al., 2004; Crystal, 2006a).

Emoticons have been widely used and developed since their introduction in 1982. Lee et al. (2016) describe three kinds of emoticons, distinguished according to their development and form ⁽⁸⁾. In the beginning, facial expressions were represented in a form of “smileys” using colons, hyphens, and brackets. Then, simple illustrations of a human face were introduced in a form of simple icon-style emoticons (widely known as emoji), providing more emotive expressions such as “smiling face with tears of joy” and “a smiling face with smiling eyes”. The last form to appear is sticker emoticons, which developed mainly with the rising mobile phone instant messaging and which have more functions and forms with animated and coloured images. Actually, these three forms are widely known as emoticons, emojis ⁽⁹⁾, and stickers, respectively.

Considerable differences can be figured out from various research dealing with the significance of these forms and their functions. Earlier research treated CMC cues ⁽¹⁰⁾, in general, as an added feature that people use to supplement the absence of face-to-face non-verbal cues due to the constraining nature of electronic communication (Baron, 2002; Thurlow et al., 2004; Crystal, 2006a; Derks et al., 2007). Recent studies, however, argue that emojis (as well as the other cues mainly stickers) are more than just a means used for clarifying emotion and providing nonverbal displays (Lee et al., 2016; Tigwell and Flatla, 2016). They can disambiguate messages, modulate the tone, reinforce the content (Rodrigues et al., 2017), provide insights into their users’ personality (Wall et al., 2016 cited in Kaye et al., 2017), and they can even represent a new way for psychologists to assess personality differences due to their widespread use and their functional similarity with words (Marengo et al., 2017).

Furthermore, in a qualitative research, Lee et al. (2016) found that emoticon usage patterns can be classified into three categories; used for expressing emotions (this is consistent with previous research about the usages of emoticons) as well as for functional and strategic motives. Emoticons (stickers) sometimes are used for functional purposes such as substituting, or supplementing a text, and used also for greetings. The strategic use of emoticons has been observed in the way they are used for self-expression (how the user wants to be perceived by others); for maintaining social ties and adjusting to the communication style and behaviour of others; to project to others a particular image one wishes to be perceived by; to receive attention with using a different behaviour, and to form sympathy. What is striking as far as these findings are concerned is not only the range of usages that emoticons are employed for, but the great similarities they bear with previous findings on patterns of language choice in Face-to-face communication (such as Wardhaugh, 2006).

Interestingly, recent studies argue that these pictographic symbols are being integrated within text messages as part of the online language (Vandergriff, 2013; Kalman and Gergle, 2014; Lea et al., 2016). In other words, the conception of emoticons, in addition to the other EMC cues, as mere translations of traditional nonverbal cues limit our understanding of their multifunctional usages; especially that this requires understanding them in their own terms rather than comparing them to face-to-face paralinguistic displays⁽¹¹⁾ (Garrison, et al., 2011). In this respect, Vandergriff (2013: 3) believes that:

We cannot accurately describe the meaning and function of a given CMC cue by 'translating it back' into a prosodic cue. Instead, a linguistic description of CMC cues must be based on pragmatic analysis of CMC cues in context and must account for the impact of variables such as CMC tool, genre and/or user.

Actually, the digital contexts, including the tool used (computer, smartphone, etc.), genre of EMC (email, instant messaging, etc.), and the users themselves (their age, gender, education, cultural background, etc.) play a great role in determining the construction as well as the interpretation of these cues. Darics (2013) also believes that the same cues do not necessarily have the same meaning in every communication situation as they do not have a distinguishable referential meaning, but rather their value depends on the discourse context and the experiences of the users.

From a linguistic point of view, Pierozak (2003 cited in Marengo et al., 2017) believes that emoticons and emoji serve as actual words within digital discourse. Besides, Provine et

al. (2007 cited in Garrison et al., 2011) found that emoticons are used in mid-phrases, which they considered as unnatural positions in speech, and that they punctuated the discourse like a comma or colon would do. Furthermore, El Ali and Wallbaum (2017: 1578) argue that “*while shown as screen graphics, they can be manipulated as text structures*”, this is due to the fact that employing emoji “*currently requires users to make a selection from large lists (one list per category of emoji). This makes emoji entry ‘a linear search task’*”. Hence, considering emoticons and their updates as paralinguistic displays do not account for their semantic role and that they are “*rhetorically motivated and increasingly semiotically charged*” (Garrison et al., 2011: 115). Actually, the semiotic system of the digital environments of communication has been adopted according to what suit the communication needs of users (Walther and D’Addario, 2001).

2.7.2.4. Internet Memes

Language use online has witnessed considerable change and development in a short period of time since the integration of Internet in people’s everyday practices, especially after the proliferation of SNSs. These communication platforms contributed not only to the socialisation of the Internet but also to the digitalisation of language and the emergence of innovative strategies for self-representation and self-expression. Indeed, language is acquiring many new features in the digital context, Internet memes in this sense are amongst the most recent updates of language use within these environments of communication.

The term ‘meme’ can mean different things in different fields and they have long been subject to constant academic debate amongst researchers. Actually, memes have been conceptualised before the digital era, as they have been first coined by the Biologist Richard Dawkins in 1976 in his book ‘*The Selfish Gene*’ to refer to a “*natural human spreading, replication, and modification of ideas and culture* (Dawkins, 2007: 244 quoted in Bury, 2016: 34). So, memes, according to him, might include melodies, ideas, styles of clothes, etc., which are similar to genes in the way they replicate, evolve, and mutate (ibid). Shifman (2013: 363) puts it in other words: “*as part of his larger effort to apply the evolutionary theory to cultural change, Dawkins defined memes as small cultural units of transmission, analogous to genes, which are spread from person to person by copying or imitation*”. That is, Dawkins’ characterisation of the notion is primarily based on the evolution and spread of cultural units of transmission by means of imitation.

This original definition of the term, however, is too general and it is not related particularly to Internet communication (Bury, 2016), though today it is publically used to refer to the digital jargon. Recently, the notion is taking other branches rather than focusing only on the genetic analogy, even by Dawkins himself in his later studies (Castaño, 2013). For instance, many draw more attention to the rapidity of spreading and online transmission that characterise Internet memes (Bury, 2016). Interestingly, this still bears a great resemblance to Dawkins' early version since it emphasises the spread and transmission of this cultural phenomenon amongst Internet participants, though focus is not really placed on the way memes are transmitted.

As a result of recent elaborations on the digital linguistic practices, definitions of Internet meme are becoming more concerned with the popular pictures and figures that spread online and that are associated with a particular culture instead of other forms. In this vein, He et al. (2014 quoted in Reime, n.d.: 2) describes online meme as: *"in Online Social Networks, [a meme] can be free text, trending catchphrase, or micro media such as photo, video, audio clip, or animated gif"*. This definition considers a meme to include both of written and visual content. Reime (n.d.: 2), however, excludes the written component and limits the conception of the phenomenon in her study only to the visual component, saying that: *"[an online meme is] a picture or figure functioning as a template or situational background, to which a specific and related, written content is added"*. That is, memes can serve as a supplement to a written text as they represent specific ideas in addition to the other parts of discourse.

Similarly, this research does not concern itself with all components of digital discourse, mentioned in He et al. (2014 quoted in Reime, n.d.: 2) above, in treating Internet memes. It focuses, rather, on pictures that are deployed as templates and that are sometimes injected by catchphrases, i.e. this paper excludes free text from its definition of memes. In the analysis (see item 4.2.4.5.), attention is paid to the functions they employ within multimodal discourse while combined with other semiotic resources (language, linguistic practices, as well as graphic and visual representations, etc.) within a specific context. There is also emphasis on how Internet memes spread, evolve, and replace one another as much as slang words and expressions do in offline communication. That is to say, memes can be viewed as one of the modes of communication that contribute to meaning making and interpretation within digital discourse.

The aforementioned multimodal characteristics of text-based digital communication have generated much multidisciplinary interest since the introduction of these new media of

communication, mainly psychology, sociology, and linguistics. Linguistically speaking, the non-standard typographic forms, the stylistic and innovative use of punctuation marks, symbols and letters, in addition to the use of emoticons and their updates (emojis and stickers) have been among the most controversial and debatable issues. In fact, language use online is so confusing that linguists do not agree on whether it is more speech-like or more like writing. Another outstanding debate is whether these digital environments are leading to a linguistic ruin or rather they indicate people's creativity.

2.7.3. Linguistic Character and Classification of Text-Based Digital Communication

Interest in classifying language use online has begun with the proliferation of the communication technologies and the spread of the new forms of linguistic behaviours in these media, in the 1980s and 1990s. Linguists disagreed on whether it is a type of writing, as messages are typed on a keyboard and read on a screen like texts; or it is a 'written speech', because text-based messages online exhibit great similarities with speech such as rapid exchange and informality; or rather it is neither more like speech nor like writing, but it is a distinct type of communication (Herring, 2007).

Actually, the emergent linguistic characteristics are so different from previous practices that they are said to blur boundaries between speech and writing, as oral discourse features have been introduced into written texts (Palfreyman and Al-Khalil, 2003). Squires (2004: 5) believes that *"messages are typed and read, physically like writing, but messaging occurs almost synchronously (instantly), like speech"*. Accordingly, this overlap between the two media makes it difficult to decide on which category language online will be classified (Baron, 2001, 2002a; Squires, 2004; Thurlow et al, 2004; Crystal, 2006a), especially that some linguists believe that this kind of language use is not a mere amalgam between writing and speech (e.g., Baron, 2002a).

Participants in text-based communication rely only on interpreting the written discourse in addition to other context cues in order to interpret messages due to the physical absence of the interlocutors. Yet, reading a text message gives you an impression of reading speech because this language is highly informal, especially that in synchronous communication, for instance, people try to be as rapid in typing as speech. Thurlow et al. (2004: 126) argues in this respect that *"even though it is not face-to-face and is typed, the language of the Internet invariably looks more like speech than writing"*. Hence, characteristics like the immediate

nature of most media and the informality of messages led most researchers to believe that this form of language is more like speech than writing, though messages are typically written.

Crystal (2006a), in contrast, believes that in spite of these speech-like characteristics that online discourse exhibits, messages do not really arrive to the recipient's screen at the same time they have been typed but they take time though it is relatively short. That is to say, even in synchronous media, people cannot react immediately when the message has been typed nor can they know whether their messages have been understood or not until they get back an answer. Herring (n.d.) also observes that language online is not as fast as speech (even in the so-called 'real-time' modes), nor is it as slow as writing (like in letters for instance).

Some scholars, however, have distinguished between synchronous and asynchronous modes of communication, arguing that while the former share more similarities with spoken discourse, like in instant messaging and chat, the latter modes are closer to writing, such as emails (Condon and Cech, 2010 cited in Herring and Androutsopoulos, 2015). Yet, Herring (n.d.) perceives this form of language use as distinct from speech and writing and sometimes incorporates features from both, but it is always subject to its own constraints and potentialities.

Crystal (2006a) argues that language use in the Internet is a linguistic revolution that led to the emergence of a new language variety, *Netspeak*. Netspeak, according to him is neither speech nor writing and not even a hybrid between the two, it is rather "*a new species of communication*" (51), "*a genuine third medium*" (52), in addition to speech and writing. Hence, he defines Netspeak as "*a type of language displaying features that are unique to the Internet (...) arising out of its character as a medium which is electronic, global, and interactive*" (21). Likewise, Squires (2004) assumes that communication via the Internet has created a space for linguistic practices that do not fully correspond to either speech or writing. Consequently, researchers still cannot classify the language used online under either writing or speech. In fact, this hybridity of linguistic features is considered by most people as a linguistic ruin, as users of the technologies are believed to lose the ability to write 'correctly'.

2.7.4. Is Digital Communication Ruining Language?

Much criticism targets language use in the digital world, including the new linguistic practices like non-conventional linguistic usages, non-standard use of punctuation, stylistic spelling, and the innovative strategies used to overcome technological constraints. Interestingly, the linguistic behaviours are not used in these digital environments only, but

rather they are seeping gradually into offline spoken and written forms of language ⁽¹²⁾ (Baron, 2002a; Crystal, 2006a). Indeed, spoken language is witnessing an unprecedented pace towards change, and this is commonly observed through the emergence of ‘youth speech’ (Miller and Caubet, 2010), which can be easily distinguished from the speech of older generations due to the overwhelming use of digital vocabulary and expressions in addition to the new ways of self-representation.

Actually, people are afraid that Internet would affect negatively ‘proper’ language, since young people are losing the ability to spell and write ‘correctly’ (Thurlow et al., 2004), as users type online with less regard of accurate spelling and minimal use of punctuation and capitalisation. Baron (2002a: 24) observes that “*there are already signs that the Internet is fostering a very different type of prose from the well-developed, logically connected paragraphs that formal education has traditionally modelled for students*”. So, even the well-established forms of writing have been challenged as a result of the impact of the new communication media which changed the way people write and speak.

These fears accompanying ‘digitalese’ spread are strikingly similar in different contexts such as in Greece, the Arab World, and Japan, for people in each of these cases worry about the effects of digital communication on language as well as on young people’s literacy skills (Tagg, 2015). Furthermore, the use of new strategies for communication has also been perceived negatively. For instance, Provine et al. (2007: 305 quoted in Garrison et al., 2011: 113) perceive emoticons as “*an unnecessary and unwelcome intrusion into a well-crafted text*”. Such assertions appear to indicate a language change which is loosely structured and barely respects standard forms.

Opponents, however, hold different views. Crystal (2006a: 2) argues that “*there is nothing new about fears accompanying the emergence of a new communications technology*”. In fact, even with the previous technologies (such as printing, radio, television, telephone, etc.) people were afraid of their possible negative results (Crystal, 2006a; Barton and Lee, 2013; Tagg, 2015), but these inventions have had positive effects instead. For instance, printing enabled vernacular translation of the Bible (Crystal, 2006a).

Furthermore, some linguists argue that the emergent linguistic features online do not indicate a linguistic ruin but rather they manifest human’s linguistic creativity. Crystal (2001a: 2) believes that these linguistic practices are “*the latest manifestation of human ability to be linguistically creative and to adapt language to suit the demands of diverse*

settings". In addition, according to Farina and Lyddy (2011), the phonological approximations of non-conventional spellings and the borrowing of sounds (like fone/phone, 2day/today) do not mean that users are linguistically incompetent, but rather they indicate an understanding of letter-sound or symbol-sound correspondence. Similarly, in word contractions (such as yr/your, brthr/brother), users omit vowels within words and not consonants while meaning is preserved (ibid). For instance, instead of writing 'ooo' for tomorrow, they use 'tmrw' and this indicates knowledge of orthography.

In other words, though these linguistic practices diverge from traditional usages they are not illogical and do not threaten standard forms, but rather they signal an in-depth understanding of linguistic features and do not reflect "*the ruin of this generation at all, but an expansive new linguistic renaissance*" (Tagliamonte and Denis, 2008: 27). Moreover, researchers highlight the importance to distinguish between textisms and misspelling in assessing literacy. Actually, the linguistic features used online like clippings, shortenings, and accent stylisation are not spelling errors because participants are aware of the language they use. Furthermore, Barton and Lee (2013) argue that such generalisations about the linguistic features of digital communication were made out of analysing large amounts of publically available corpora online without considering their immediate discursive and social contexts. Actually, linguistic structures are not separable from the social structures in which they operate.

2.8. Sociolinguistic Issues Online

In fact, most conclusions about language use online have been drawn upon the established linguistics concepts without considering the social and technological frameworks that determine language use. Early research has paid much attention to the structural features of language and how it is being reshaped within the electronic media with little focus on other crucial factors that affect and restructure language. It is of a great importance, then, to account for the social context in which linguistic practices take place. Recently, linguists started to consider the fact that the linguistic usages vary considerably across the different types of digital environments as well as in different contexts and circumstances. Other issues related to the field of language and Internet are also omnipresent in the literature such as: Internet and the global dominance of English; language endangerment, maintenance, and revitalisation; language diversity, and new multilingual and trans-lingual practices.

2.8.1. Language Variation

In spite of the regular similarities in linguistic patterns exhibited worldwide, language of the Internet is typically idiosyncratic (Crystal, 2001). Actually, people employ these linguistic features differently depending on their individual specialty, including their age, gender, education, socio-economic background, preferences, linguistic repertoire, etc. However, these individual differences are common among the different social categories marking, hence, the interplay of both linguistic and social variables in the production of language online.

If compared to the structural features of linguistic behaviours, little research has been done on language variation in digital communication due to the anonymous nature of the Internet (Androutsopoulos, 2006). Critical social information required for research on variation, like age, gender, social class, etc., are not openly stated because participants often hide their real identities online. In addition, due to invisibility, fake profiles are not uncommon especially as far as age and gender are concerned. Yet, such information can be inferred through analysing users' prevalent linguistic variants online such as the use of emoticons, unconventional spelling, punctuation, etc. which are dictated by the participants' socio-cultural belonging (ibid).

In other words, the study of language variation entails examining “*the patterns by which language users differ in their production of linguistic forms, mapping variation onto social properties*” (Squires, 2004: 2). For instance, spoken language features are said to vary across age groups, as surveys indicate that they are widely used by young people (Androutsopoulos, 2006). Moreover, a study conducted in the Algerian context exhibited considerable differences in language choice and performance online across different regional as well as educational backgrounds (Zahali, 2013).

Another important variable that is considered as one of the most controversial issues in sociolinguistic investigations is gender. Recent research indicates that not only do females and males use language differently, but they also employ it to serve different functions (Newman et al., 2008). Yet, due to inconsistent and conflicting findings – because on the one hand research methods were not adequate (ibid) and on the other hand linguistic behaviours are gender preferential rather than gender-related (Bell et al., n.d.) – researchers today are more interested in explaining gender language variations than just citing them.

Actually, various theories have been put forward to explain such linguistic differences. Some believe that language is shaped by the specialisation of gender roles that are dictated by

social norms pursuing accordingly gender stereotypes. This culturally-constructed division of labour does not only determine power and dominance relationship between males and females, but it also shapes the way they use language (Eckert, 1990; Romain, 2003; Lakoff, 2003). These issues about gender stereotypes, power relationship, and linguistic variations have been over complicated online. Even in the digital age, women are said to suffer from gender digital divide, because technology is overwhelmingly dominated by men (Dholakia et al., 2003; Herring, 2003; Chyung, 2007) as a result of the division of labour. However, Internet is thought to bring about gender equality, as it can be a boost to women empowerment (Arab Social Media Report, Nov. 2011).

As far as gender linguistic variation online is concerned, research findings are consistent with offline results. Yet, most research on the issue attempt to figure out differences between gender-related behaviours online (e.g. Herring, 1994, 2003; Dholakia et al., 2003; Squires, 2004; Chyung, 2007; Yukselturk and Bulut, 2009; Bboo et al., 2010; Mazman and Usluel, 2011) but, to my knowledge, no research tried to explore whether these gender stereotypes and power relationship between males and females have been transmitted or dismissed in the digital world. Recently, Zahali (2017) argued that the Internet, particularly Facebook, is reinforcing traditional (offline) gender stereotypes because such communication environments are arenas where the ubiquity of gender-related multimodal content reinforces the clash of gender identities, especially that it is exposed to large audiences in an unprecedented way.

In addition to the aforementioned factors of language variation online, Barton and Lee (2013) state that language varies across individuals as well as across the various digital platforms. Actually, since the advent and the development of CMC, researchers observed that language is employed differently in the various types of digital communication (e.g. Riva and Galimberti, 1998; Baron, 2002; 2010; Thurlow et al., 2004; Crystal, 2006a; Warshauer et al., 2007). For instance, the language used in asynchronous communication such as emails is so different from the language used in synchronous modes such as IM. Studies also show that there are significant differences between SNSs such as Twitter and Facebook (Davenport et al., 2014), which are designed differently and this leads accordingly to variation in the way language is used. Thus, language use in the digital environments of communication exhibits multiple forms and variations. Things become even more complex when considering the online representation of the diversity of languages in the world because many think that this intensive contact between languages online would lead to the dominance of languages over others, particularly English which is widely considered as the lingua franca of the Internet.

2.8.2. Internet and the Global Dominance of English

Since the 1990s, English started to be described as the pre-eminent world language as it spread beyond its traditional boundaries. It is used in a host of various countries, settings, contexts, and in a range of different forms, functions, discourses, and media – spoken and written. Among the factors that contributed to the diffusion of English is the role of communication media, including TV and the Internet. The latter, being a global technology that is still in the hands of its inventors and serves their interests, is often thought to foster the spread the Global language at the expense of not only minor languages but even the position of world languages ⁽¹³⁾ has been threatened. Actually, one of the major issues discussed due to the linguistic outcomes of the Internet is the extent to which English is prevalent online and what effects this might have on the other languages worldwide.

Online linguistic practices have been dominated by English; in terms of the native language of Internet users, the language used for searching and access as well as the language of websites and content. In the last decade of the twentieth century, nearly all Internet websites (80-85%) were in English (Amant, 2007). In addition, it was used as a ‘lingua franca’ of online international and professional communication (Androutsopoulos, 2006). That is to say, people have to switch to English to conduct online searches (Tagg, 2015) and if they do not muster it, they had better acquire it in order to access the information that Internet provides. In this respect, Fishman (1998: 26 quoted in Barton and Lee, 2013: 42) believes:

More than 80 percent of the content posted on the Internet is in English [...] Whether we consider English as a ‘killer language’ or not, whether we regard its spread as benign globalisation or linguistic imperialism, its expansive reach is undeniable and, for the time being, unstoppable

This is an assertion that the Internet is fostering the global reach of English in spite of the various attitudes towards this phenomenon. Central to this issue is the representation of minority and endangered languages online and its implications offline.

So, Internet may be another factor that makes speakers of minority languages abandon them and shift towards languages of wider communication, given the fact that Internet is widely used for intercultural communication and that English is used as its lingua franca. Moreover, the marginal role that these languages play online will enhance accordingly the gap between these disadvantaged groups and the developed communities who are socially and digitally privileged.

2.8.3. Language Endangerment, Maintenance, and Revitalisation

However, some believe that Internet has double-edged effects on minority languages, as it does not only threaten them but rather it can be a boost for language revitalisation as well. As pointed in Cunliffe (2007 cited in Tagg, 2015: 49), “*digital communication has brought new threats and new opportunities to those concerned with maintaining languages*”. In fact, the Internet can be a useful tool for maintaining and strengthening their national and international position, bearing in mind that the technologies of communication are initially text-based and potentially multimodal and that most disadvantaged languages are only spoken. In other words, these technologies give unprecedented opportunities for these languages to be produced in many forms of digital content, which will contribute to their preservation.

Besides that, prior to the advent of the Internet, public regional and dialectal writings were found only inside their communities and they seldom achieve an outside audience. Potentially however, Internet became an opportunity for such writings to be publically known throughout the globe. In this respect, Crystal (2006b: 404) says: “*probably the most important linguistic effect of the Internet is the way it offers an unprecedented degree of written public presence of small-scale regional and social groups, and thus a vast potential for presenting local identities*”. Consistent with this claim, Marling (2006: 8-9) sees that “*the best chance for saving some of them, or prolonging their lives, turns out to be US-generated computer software*”. Other researchers also argue that endangered languages are no longer threatened by the previously-English-dominated Internet, but rather it gives them an opportunity to be preserved and revitalised (e.g. Crystal, 2001b; 2006b; Baron, 2002a; Thurlow et al., 2004; Marling, 2006; Barton and Lee, 2013).

Interestingly, unlike traditional media, like TV and radio, which constitute passive consumption, the Internet helps users to be active producers of content, without official censorship, approval or editing, without even costs or mediation (Cunliffe, 2007 cited in Tagg, 2015). Furthermore, while text-based media of communication enable informal practices for languages with no writing forms, media-sharing sites such as YouTube allow for their oral representations (Cunliffe and ap Dyfrig, 2013 cited in Tagg, 2015).

Thus, given its communicative possibilities and multimodal services, Internet is considered as an opportunity for self-expression to all languages, especially the endangered ones. Crystal (2006a: 229) points out as far as Internet’s potential for multilingual

representation is concerned that “*not only does it offer a home to all linguistic styles within a language; it offers home to all languages*”. Multilingualism online is manifested not only via the diversity of languages typed, skyped, instant messaged, and blogged, but also through the multicultural experiences that users articulate and that can be figured out from their language choice and performance in the digital environments of communication.

2.8.4. Language Diversity

Though English monopolised the Internet by the beginning of its introduction, other languages could capture up. By 2000, this dominance came to an end and non-English-speaking population online increased in number, to be 69.4% while English speaking users dropped to 30.6% in 2005 (Amant, 2007). In 2012, statistics provided by the digital marketing agency Greenlight (cited in Tagg, 2015) indicate that the majority of Internet users (76%) search in more than one language. Yet, the increasing multilingual character of the Internet does not imply that languages are represented equally, thus online linguistic diversity remains pessimistic. Tagg (2015: 50) observes that Internet is dominated by the few ‘big’ languages (82% of all users can speak one of the top ten politically strong languages), whereas only 17.8% of Internet users speak the ‘rest’ of the world’s languages, which include up to 6000 languages.

Moreover, online linguistic presence is concentrated in North America, Europe (Marling, 2006), and some parts of Asia. Hence, this technology is still monopolised by the wealthy and politically-powerful nations (Crystal, 2006a), while the rest of the world, mainly African countries, play a marginal role online. So, the digital age is said to be devised into “*nations or communities who have access to communication technology and those who don’t*” (Thurlow et al., 2004: 84). Accordingly, this ‘digital divide’ demonstrates that the description of Internet as a global and democratic technology is a myth (Mooney and Evans, 2007). Even with the recent rise in penetration rates of the disadvantaged communities, which are said to double every year since 1998 (Marling, 2006), Internet flow tends to be higher in developed countries and lower in developing ones, who still rely on access to personal computers and cheap mobile devices (Tagg, 2015).

Thus, comparing between the global linguistic distribution – only 3% of the world languages are spoken in Europe, 15% in the Americas, and 30% in Africa (Löwstedt, 2007) – and the linguistic distribution on the Internet, with the greatest concentration of Internet resources in developed countries, makes it clear that “*the Internet in its present form does not*

provide representative access to the full range of linguistic and cultural groups worldwide” (Paolillo, 2007: 424). In addition to that, most of the languages in Third World countries are only spoken and are not codified while the character set of the Internet was initially based on Latin code system and only recently few languages with non-Latin scripts started to be integrated. Nevertheless, despite these technical constrains, people take up the new possibilities provided on the web, including the dominant languages, to communicate in creative ways.

2.8.5. New Multilingual and Trans-Lingual Practices

Actually, the technical characteristics of communication technologies do not constitute obstacles for language use, but surprisingly they turn up to be resources for a wide range of digital linguistic practices. The multilingual nature of the Internet goes beyond issues like the distribution of languages online, marking hence a shift in applied linguistics studies towards accounting for *“the significant multilingual practices of Internet users, the motivations behind their language choices and the functions and meanings these have for them in the specific Internet contexts in which they operate”* (Leppänen and Peuronen, 2012: 389 quoted in Tagg, 2015: 130). In other words, the new linguistic behaviours are shaped mainly by the particular digital situations.

Barton and Lee (2013) also point out to the shift in linguistic studies and claim that it is now a matter of how people act differently in the digital contexts, given the new interaction possibilities provided by the web. They further comment that anyone, even those who describe themselves as monolinguals, can experience or do things with different languages. For instance, people usually use online translators and they have an idea of which of these translators are more reliable. Other practices online related to language use can be found in YouTube, where people can learn and teach languages and they can even engage in discussions about language in the writing spaces provided in the website. Besides that, people participate in various conversation topics using different dialects and languages. Such practices are only some of the multiple multilingual encounters exhibited in people’s online trans-lingual practices (ibid).

These do not only incorporate the use of different dialects, styles, and languages, but they are also used in networked communities, which join together people with different geographical, linguistic, and cultural backgrounds leading accordingly to the emergence of unprecedented experiences. Tagg (2015), for instance, explores one of these practices, code-

switching online which differs considerably from traditional (spoken) usages due to “*the affordances of digital contexts, including the networked audience, the availability of networked resources, and the graphic and visual resources available online*” (Androutsopoulos, n.d. cited in Tagg, 2015: 130). First, language choice in statuses updates, for example, is determined mainly by the targeted individuals as well as identity performance before the audience; second, due to the networked resources, users do not need to be proficient in languages to code-switch as they can share or insert expressions, pictures, videos, friends’ posts, etc. in other languages; finally, practices associated with multilingualism have been extended since people use the online resources such as scripts, spelling, and symbols in creative ways (ibid).

Hence, despite of the similarities between spoken and online code-switching, there are several new multilingual practices that are the outcome of the digital contexts and need to be explored in their own terms rather than drawing on models developed in relation to spoken interactions. In other words, traditional frameworks do not fit the new digital practices and the existing models need to be reconsidered (Tagger, 2015). Among the digital linguistic practices that attracted researchers’ as well as public interest and criticism is the case of Arabic usages online, which are one of the most controversial and debatable topics due to the great impact of the digital environments of communication on its traditionally well-established conventions.

2.9. Arabic in the Digital Age

The introduction of the Internet to the Arab World was relatively late, in the 1990s. This has been due to geographical, political, social, cultural, technical, and economic factors. Internet penetration rates since then were very low and its growth was slow. By 2009, Arabic constituted a minority language in the web, with only 41 million users (Allmann, 2009), though it is one of the six most widely spoken languages in the world (with more than 350 million native speakers). In the second decade of the twentieth century, however, Arabic became the fastest growing language online (Baasanjav, 2014). This might be due to the recent technological developments, as Internet access does no longer rely only on fixed personal computers that must be linked to landline telephony but rather more handled networked devices are used, which are easier to use and affordable. Cultural and social changes can also be considered as factors for such rapid adoption, since the Arab world seem to be more open to the west and traditional fears of technology are not as strong as they used to be by the beginning of its advent especially that the Internet’s importance in human life is

indispensable. So, these factors enabled the spread of Internet in the area as well as the representation of Arabic in the digital media more than ever before.

Arabic use online constitutes a topic with unique insights. It does not only require a non-Roman script, but its diglossic nature has over complicated its representation in the new communication media, which were (and they are still) pre-dominantly text-based. This led to paradoxical results. On the one hand, Internet was based only on a Latin character set while the characteristics of Arabic are strikingly different and did not fit the electronic context. On the other hand, digital communication is overwhelmingly informal and this has led to the use of colloquial Arabic in written domains thought it has never been formally codified. Hence, several linguistic practices emerged as a result of the overlap between technology and people's communicative needs such as the adoption of a Latinized script in addition to the use of numerals and symbols to represent some Arabic sounds.

2.9.1. Latinised Arabic

In the few recent years, digital media became a typical means for interpersonal as well as professional communication amongst Arabic speakers. This has enabled the use of Colloquial Arabic (which has never been officially codified) alongside SA for written purposes especially for informal usages, which dominate most technologically-mediated communication mainly SNSs like Facebook. Accordingly, people have developed writing systems to represent their indigenous languages using mainly Arabic or/and Latin scripts (Palfreyman and Al-khalil, 2003; Aboelezz, 2009; Gordon, 2011), in addition to Hebrew script for the case of Palestine (Abu Elhija, 2014).

Roman-scripted writing of Arabic is ubiquitous online and was first used to overcome technological marginalisation. Aboelezz (2009: 2) defines it as *“a written form of Arabic that uses Latin or Roman characters as an alternative orthographic form of Arabic language, which normally employs Arabic script”*. That is to say, Latin letters have been adopted to write in Arabic relying on phonological or visual similarities between them (Tagg, 2015). Interestingly, differences in LA among its speakers are as varied as the number of the Arabic vernaculars because it often reflects the user's regional variety; i.e., there is no standard form of LA as these variations extend to the graphological depiction of characters (Aboelezz, 2009). Further, research on Arabic use online in Algeria, Jordan, The United Arab Emirates, and Kuwait indicates a *“user-generated way of transcribing Arabic using the Roman alphabet”* (ibid: 1). That is, Arabic use online manifests an idiosyncratic, or individual, way

of self-expression. For instance, the use of numerals to represent Arabic sounds that have no equivalents in Latin alphabet manifest great variability among users.

2.9.1.1. Using Numerals as Letters

Due to the fact that several Arabic sounds do not have equivalents in Latin script, people often use numerals and symbols alongside Roman letters to approximate these missing sounds in the Latinised writings of Arabic (Palfreyman and Al-khalil, 2003; Aboelezz, 2009; Gordon, 2011; Tagg, 2015). Actually, consonants in SA outnumber those in English (in Latin alphabet in general). Arabic has 28 letters (consonants) and its vowels are optional diacritical marks placed above or under the letters, while English has 26 letters, including the vowels. MSA has about 10 letters that English does not have (/q/ (pharyngeal) <ق>, /ʁ/ <غ>, /ʕ/ <ع>, /ħ/ <ح>, /x/ <خ>, /ð/ <ظ>, /tʃ/ <ط>, /dʒ/ <ض>, /s/ <ص>, and the glottal stop /ʔ/ <ء>), the latter on the other hand also contains some letters that the former lacks such as /g/, /p/, /v/, /ŋ/, /ʒ/, /tʃ/; however, some Arabic dialects contain some of them like /g/, /v/, /ʒ/, /tʃ/ (Abu Elhija, 2014). As a result of these differences between the writing systems of Arabic and the European languages, some Arabic speakers who adopt a Latinised version of Arabic in their electronic writings often use numbers that correspond to each of these missing letters.

These numbers are used either because they are visually similar to the Arabic letter, i.e. they correspond to the shape of the letters (for instance, the numerals <3>, <7>, <2>, <9>, <6> are widely used to represent <ع>, <ح>, <ء>, <ق>, <ط> respectively because of their great resemblance), or because they are approximations of the sound in Arabic like the use of the number <5> to represent the letter <خ> because in Arabic reading the number ‘five’ starts with the sound /x/. However, the use of numerals, and other creative linguistic strategies, are not stable and depend on the variations between the Arabic dialects (Gordon, 2011). For example, because of the phonetic shifts that characterise the Arabic dialects (for instance, <ق> becomes <ء> for the Levantine Dialects, like in <قلب>, heart, is uttered <الب> /alb/), the numeral <9>, used to represent the letter <ق> in dialects of North Africa, is absent from the Levantine’s online usages (ibid). Recently, researchers are more interested to explain the factors that lead to the maintenance of Latinised Arabic and what influences users’ script choice than just citing differences between linguistic practices.

2.9.1.2. Script Choice

The online Romanisation of Arabic, which has been initially motivated by technological constraints, is still widely used in addition to the Arabic script, in spite of the recent technological support for more non-Latin scripts. In other words, Arabic speakers acquired two optional scripts for their electronic writings. Aboelezz (2009) believes that the continued use of LA may be due to the fact that users have got acquainted with it and it becomes thus an icon for a new teen identity. In this respect, Tagg (2015) claims that the Latinized use of languages points to greater social or personal significance. Abu Elhija (2014: 192) assumes *“one can look at this from three different perspectives: (1) language processing, (2) ideological/political and sociolinguistic factors, (3) and/or technological and availability factors”*. Zahali (2013) also believes that the script used has to do with gender, regional, as well as educational differences. Hence, script choice is determined by several factors and it is no longer used only to overcome technological marginalisation.

Zoabi (2012) in a study of Electronic *Amiyya* on Facebook in the Middle East and North Africa found that the Arabic script is dominant in Syria, Saudi Arabia, Iraq, Oman, and Libya. According to her, this is due to the ideology of Arab nationalism and Islamism that led to strong Arabisation in these countries and any symbol with foreignness such as Latinised Arabic clashes with their ideology. However, in Algeria, Tunisia, Morocco, and Lebanon Latin script was more dominant. This has been explained by the fact that Latin script is correlated with colonialism, modernity, and prestige. In addition, the existence of the Berbers in Algeria and Morocco as a large non-Arab group is another important factor for the persistent use of the Romanised script. Last but not least, French is taught in the different levels of education in the aforementioned countries and this has naturally encouraged the use of Latinised Arabic. In fact, what is more striking about script choice online is that people are switching from one script to the other within the same conversation, the same sentence or phrase (inter- and intra-sentential script switching), and they even fuse the two scripts within a single word.

2.9.1.3. Script-Switching and Script-Fusing

Actually, in spite of the possibility to choose among the two available optional scripts, selecting either Arabic or Latin script does not always fit users' communicative needs online. A major factor for this might be the fact that most Arabic dialects are loaded with foreign words (such as French, Spanish, Italian, Turkish borrowed words into some Algerian regional

dialects), in addition to other sociolinguistic behaviours like code-switching and code-mixing (Zahali, 2013). Hence, people may switch to Latin script to write foreign words and expressions. Yet, this gives a superficial understanding of the phenomenon, since such practices go beyond mere linguistic explanations. In fact, people enjoy playing with the possibilities of the digital world for self-expression and tend to use the multiple visual, linguistic, and semiotic resources provided within the digital environments of communication for indexing their identity. That is, users draw on the scriptural abilities to design creative ways of communication. Further, the alternation between scripts is used even within a single word, and this has been observed to be the most recent script-related behaviours.

In this respect, Panovic (2018: 72-73) distinguishes between script-switching, which he reserves for instances of employing the two scripts *“in such a way that some words or phrases are written entirely in one script, others entirely in another”* and script-fusing, which he defines as *“an act of combining letters from at least two scripts within a single word”*. According to him, the former does not necessarily involve code-switching, as people switch between scripts to represent Arabic meanings. The latter, however, does not involve language alternation because it is realised within one word. Actually, understanding these practices, though traditional technological constraints on script choice have ceased to exist, requires taking into account their historical and cultural context, as they mainly represent the link between global and local identities.

Interestingly, Maybin and Swann (2007:512-13 quoted in Panovic, 2018) point out to language creativity which is shaped by historical and cultural circumstances. In this respect, Thurlow (2012: 170 quoted in Panovic, 2018: 78) believes that the *“creative practice always emerges out of dialectal tension between fixity and mobility, constraint and freedom, convention and innovation, stricture and defiance, orthodoxy and heterodoxy”*. That is, creativity in language is more likely to emerge and develop in a context full of contradictions and paradoxes. Accordingly, people, especially youngsters, find a way, a third space (Bhabha, 1994), which does not belong to either extreme but it is rather, composed of an artistic combination between different elements in a way that has never existed before and that can only be understood in its own context. Script-fusing, hence, can be viewed as a third space, *“where two systems of identity representation converge and are co-modified and commodified in response to the global-local tensions”* (Bhatt, 2008: 178 quoted in Panovic, 2018: 79). So, in a postcolonial era, where different ideologies, cultures, and identities coexist, the

juxtaposition between linguistic practices is a commonplace. In addition to switching from one script to the other, people also switch from the high to the low variety or vice versa.

2.9.2. Digital Representation of Diglossia and Contemporary Levels of Arabic

The functional distribution of varieties across different domains of use seem to seep to the online world especially amongst communities whose sociolinguistic profile is characterised by complex relationships between the various co-existing linguistic varieties. Zahali (2013) observes that Algerians use their mother tongue (Algerian Arabic or/and Berber) in instantaneous and spontaneous interaction more than in asynchronous forms, while they keep Standard Arabic for the most asynchronous usages, as they have an opportunity to prepare and edit messages. As for the relationship between Arabic and languages of wider communication, Palfreyman and Al-Khalil (2003) believe that the choice of a code is linked with different functions and topics, with English used mainly for formal communication or for topics such as university courses (Warschauer et al., 2007) and Arabic for cultural-bound expressions or informal communication (Aboelezz, 2010).

Abd El Karim (n.d.) has classified Arabic text-based communication online into two categories depending on either the topics of discussion or the educational and intellectual level of the users of Facebook (and WhatsApp). Arabic varies considerably across topics like religion, politics, advertisements, humour, literature, personal issues, etc. Throughout these usages, contemporary levels of Arabic are widely present (ibid) because topics are discussed via different varieties of Arabic that can be arranged in a continuum; from the most formal to the most informal. As for the second category, he observes that the different levels of Arabic are also determined by the educational and intellectual levels of people. For instance, those who have higher educational degrees use Classical Arabic, Standard Arabic, Contemporary Arabic, and Middle Arabic (also known as Educated Spoken Arabic), while people with little education use colloquial forms (Colloquial of the Intellectuals, Colloquial of the Literates, Colloquial of the Illiterates).

Accordingly, even the use of Arabic in written communication online has different levels, which are arranged between two discrete varieties: Classical Arabic on the one hand and Colloquial Arabic on the other. Inspired by Badawi's classification of spoken Arabic varieties (see item 1.5.3.), Abd El Karim (n.d.) distinguishes between seven different levels of Arabic used in written usages in both of Facebook and WhatsApp. He relies in his classification on the topics tackled in the websites as well as the linguistic characteristics of

language usages (determining linguistic mistakes indicates the level of Arabic in written communication).

2.10. Conclusion

In addition to the previous chapter, which dealt with the Algerian sociolinguistic situation, this chapter also can be considered as a background used in order to reach the research objectives, as it tackles the second faced of the topic under investigation. Its core is based primarily on the digital environments of communication and their impact on language use. As a first step, the current chapter began with defining and explaining key concepts in the research, such as CMC, communication in the digital age, SNSs, Facebook, and online communities. After tackling their major characteristics, light was shed on their sociolinguistic characteristics.

Emphasis has been placed on the factors that make of the Internet an arena for the emergence and spread of new linguistic forms. Then, special attention was given to the multimodal discourse elements online, their structural features and functions; including non-standard typographic forms, exaggerated use of punctuation marks and repetition of letters, and visual resources such as emojis, stickers, and images. Issues like language variations, language diversity, multilingual practices online have also been discussed. Finally, the chapter dealt with the case of Arabic use in the new communication media and how it is being affected by the new technological platforms. In fact, all these issues will be checked in the Algerian context, in order to see whether the Algerian sociolinguistic situation is preserved online. Before reaching this objective, explaining the methodological procedures and instruments used is a prerequisite step. Hence, the next chapter is devoted to the methodological framework of the research.

Notes of Chapter Two

1- The term apps is a conventional abbreviation that refers to software applications, computer programs designed mainly to run on mobile devices. Apps help people perform particular activities depending on what they have been designed for, including web browsers, games, media players, photo editors, IM apps, etc. The latter is becoming so popular amongst smartphone users to the extent that it is barely impossible to find a mobile device without IM applications. People usually have more than one installed in their smartphones, the most widely used by the Algerians are Facebook Messenger, Viber, WhatsApp, and Imo.

2- The issue of terminology has always been conflicting especially in language studies. Media, in this respect, should not be confused with modes as they are employed in this research to mean different things. The former refers to the material that carry or include the modes (semiotic resources like speech, writing, images, music, etc.), including telephones, radios, and computers, among others. It is also employed to refer to communication technologies (like SNSs, emails, and blogs) and sub-technologies or communication genres (like the different writing spaces provides online) because discourse modes are mediated by these different communication media.

3- The term affordances incorporates both of the possibilities and constrains of action that people face in a particular situation. So, they draw on both of them to build their own world because they do not only take the intrinsic properties of an object but they make use of all what is of a value to them and they even adapt its constrains. Indeed, there is always a mismatch between the original intentions of the technologies' designers and the ways in which these technologies have been embedded into people's social practices according to what suit their needs. The electronic nature of digital communication, for instance, that used to be considered as an obstacle to effective human interaction have turned to be a source of human creativity. The emergence of Latinised scripted writings, shortened linguistic forms, and CMC cues are the birth of electronic constrains; marginalised non-Roman character sets, small screen size, and absence of face-to-face non-verbal cues respectively.

4- Possession of information and technologies created a gap between the 'haves' and the 'have not', there is a remarkable division between nations and communities in terms of access to infrastructure. This divide distinguishes between developed world (Asia, Europe, and North America) who own strong Internet connections, on the one hand, and the developing countries

(mainly Africa and Latin America) who still have very low Internet flow and people rely on cheap mobile devices, on the other. Accordingly, lack of infrastructure perpetuates existing inequalities; not having adequate Internet access is becoming a huge disadvantage as this hinders people's life, which is increasingly digitalised.

5- The notion of texts is crucial in any language-focused study. The term can mean different things in different disciplines; it can be a novel, a movie, or a TV program in literature. In linguistics, however, it is often employed to refer to written language. The latter constitutes the basis of communication in the digital environments. Yet, due to the new contexts of language use online, texts are acquiring several new properties as well. Texts are moving from print versions to screen, which influences text production as well as interpretation. Another interesting update that texts are undertaking online is the interrelations between texts that are becoming stronger and denser. Texts on Facebook, for instance, are most of the times linked to earlier ones; this has mainly been intensified by the digital services provided on the site such as copy-paste, sharing content, and tagging friends to read texts. Besides that, texts online are overwhelmingly multimodal, involving several modes of discourse like languages, scripts, colours, images, etc. So, people draw on the semiotic resources available online to make their own content in creative ways. Interestingly, these text-making practices exhibit systematic functions of discourse modes because these patterns of use are deployed in regular manners to fulfil particular functions.

6- The concept 'mode', or a semiotic mode, is used throughout the thesis to refer to a system of signs or resources that are used by people in consistent and systematic ways and that they draw upon for the construction of meaning. So, the term may include any semiotic resource used by people in digital discourse such as languages, colours, emojis, images, scripts, etc.

7- Human life can be regarded as being made up of social practices; including studying, working, reading, chatting, shopping, etc. that constitute our lives. Language is always involved in some way in these activities because it plays a central role in all practices performed. This complex relationship between social practices and language is becoming salient in the digital world since social practices are transmitted online and they are mainly represented via the mediation of language in several text-based formats.

8- Here are examples of the different types of emoticons (emoticons, emojis, and stickers) that developed since the first introduction of text-based smileys in CMC (Lee et al., 2016: n.p.):

Phase	Examples
text-based emoticon	:-) ^-^ (´Д`)
icon-style emoticon	  
sticker emoticon	   

9- The term emoji has been first coined in 1999 by the Japanese Shigetaka Kurita, NTT DoCoMo employee, and adopted in English by Apple iPhone on 2008. It is, in Japanese, a compound word that contains *e* “picture” and *moji* “character” referring to a pictorial character (Online Etymology Dictionary).

10- CMC cues refer to any type of expression other than language used in communication online, including stylistic use of letters and punctuation marks, emoticons, gifs, videos, timing and spacing aspects of messages, etc. They bear great resemblance to face-to-face non-verbal cues in terms of the functions they employ within discourse.

11- Paralinguistic signals are those features outside a language system but contribute to a great extent to meaning construction as well as interpretation, like facial expressions.

12- The best example of the huge impact of language use online on offline spoken and written forms of language is the multimodal discourse that characterised most slogans of the Algerian manifestations in the period between February, 23rd 2019 and March 2020. These slogans are typically a transmission of Facebook linguistic practices to real life situations, as they generally include sarcastic messages that draw on the semiotic modes of discourse employed online; such as the combination between images and short descriptive statements. This mutual interference between offline and online worlds is an interesting theme to be investigated scientifically in in the different social and human sciences. The image inserted bellow is an

illustration taken from the Algerian ‘Hirak’. It is a real photo of a man holding a big paper written in a way similar to Facebook language use, which includes an Arabic statement “*I am 37 years old and I still do not have a pan*” on top-right side of the paper and a real pan (that symbolises a women) glued (inserted) below the statement. The overall discourse refers to the case of many Algerians who cannot marry because of their miserable life conditions (no houses and unemployment). Such slogans were widely used during the manifestations against political, economic, and social problems.



13- The term world languages is used in the thesis to refer to languages with large populations and spoken in a range of countries due to several reasons such as colonialism (like French and Spanish), religion (like Arabic), etc. In a context of the increasing globalised world, even these languages which are used at the international level are said to be threatened by the global language. This impact is so salient at the Internet since English still dominates information access and research in spite of the recent raise in online penetrations in these big languages.

CHAPTER THREE:

METHODOLOGICAL

FRAMEWORK

OF THE

RESEARCH

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3.1. Introduction

This chapter constitutes the methodological framework of the research, as it presents the procedures and the methods designed to achieve the main aim of the study. In other words, it bridges the gap between the theoretical and the practical sides of the research in order to know whether the Algerian sociolinguistic profile is preserved in the digital environments of communication or it is losing its defining features. Therefore, the chapter is structured into different constituent parts, with each aims to cover an important side of the methodological construction of this sociolinguistic investigation.

Details about computer-mediated discourse analysis (the research approach adopted) and the empirical design have been provided. In addition, factors that make of Facebook a suitable site for such objective alongside the research population and the appropriate sampling techniques have also been given credit in this methodological section. The chapter also considers data collection tools, procedures, and methods of analysis.

3.2. Research Approach

The research before hands sheds light on ‘the Algerian sociolinguistic situation within Facebook’. It is arranged, hence, under the frame of ‘Internet Linguistics’, a new branch of linguistics that has developed as a result of a wide adoption of the Internet for people’s everyday social practices, mainly communication. That is, Internet became a social phenomenon rather than a mere technological tool used only for professional purposes. Consequently, Internet has created a virtual world specific with its own communities, identities, relationships, and more importantly with its own linguistic behaviours that require scientific investigation to understand language use in the digital environments.

Crystal (2005: 1) defines Internet Linguistics as: “*the synchronous analysis of language in all areas of Internet activity, including email, the various kinds of chatroom and games interaction, instant messaging and web pages*”. Therefore, it is a new branch in the field of linguistics that studies scientifically linguistic practices in the different domains of language use online. In this respect, Lawler and Dry (1998: 2) believe that computational technologies “*are reshaping the discipline, bringing to light new areas of research, new types of data, and new analytical tools*”. Actually, the scope of Internet linguistics has been open to include several subfields due to the multifarious forms of online behaviours, the different technologies and sub-technologies involved in communication, and the purposes of Internet adoption. Since 1990s, Internet became an integral part of people’s everyday interaction, this has provided a

range of new and unprecedented linguistic activities. Consequently, an increasing number of researchers are interested in studying the online discourse as a way to understand the effects of the new media. Such language-focused research in the field of Internet linguistics is known as Computer-Mediated Discourse Analysis (Herring, 2004).

3.2.1. Computer-Mediated Discourse Analysis

The term computer-mediated discourse analysis (henceforth, CMDA) has been first introduced by Herring in 1995, yet linguistic research in this field existed since the mid-1980s (Herring, 2004). She describes this approach as follows:

CMDA applies methods adapted from language-focused disciplines such as linguistics, communication, and rhetoric to the analysis of computer-mediated communication (Herring, 2001 [a]). It may be supplemented by surveys, interviews, ethnographic observation, or other methods; it may involve qualitative or quantitative analysis; but what defines CMDA at its core is the analysis of logs of verbal interaction [...]. In the broadest sense, any analysis of online behaviour that is grounded in empirical, textual observations is computer-mediated discourse analysis. (Herring, 2004: 339 quoted in Bolander, 2013: 87)

According to Herring, CMDA is not a theory or a single method, but rather it is an approach to researching online behaviour and it allows various theories about computer-mediated discourse to be tested and empirically studied. Moreover, it entails a set of methods of data collection, sampling, and analysis from which researchers can choose those best suited to their research questions.

Herring (2004: 4) explains that the theoretical assumptions of CMDA are similar to those of linguistic discourse analysis as they are basically adapted from language-focused disciplines such as linguistics, rhetoric, and communication studies to the field of CMC. In discourse analysis, two assumptions play central roles, 1) discourse exhibits recurrent patterns and 2) discourse involves speaker choices (ibid). First, discourse patterns can be either conscious or unconscious (Goffman, 1959 cited in ibid); speakers are not necessarily aware of their writing patterns, and thus more reliable generalisations about linguistic usages are more likely to be obtained from direct observations than participants' self-report. The second assumption of discourse analysis provides insight into non-linguistic components of language usages, as speakers' choices of linguistic items are conditioned by cognitive and social factors in addition to linguistic considerations. Another important assumption that is specific to CMDA is

associated with the nature of language use that is shaped by the technological features of the communication medium. It is important, hence, to investigate “*in what ways, to what extent, and under what circumstances*” (Herring, 2004: 4) technology affects communication as well as discourse patterns and choices.

Accordingly, due to the fact that most of the new media of communication are predominantly text-based because of the physical absence of interlocutors, language plays a central role in any scientific research as it is the most important source of analysis. In other words, analysing mediated discourse focuses mainly on what people do when they use language. Kolko (1995: 105 quoted in Bolander, 2013: 87) belies in this respect that, “*in text-based worlds, words are the only matter of the place. Like the artefacts of print culture, virtual worlds depend almost exclusively on language to create a world*”. Yet, language is complex and multi-faceted as on the one hand it can be subject of investigation in different disciplines, and research can focus on the different dimensions or levels of language, on the other.

CMDA can be applied to five domains or levels of language that range from the smallest to the largest units of linguistic analysis: 1) structure, 2) meaning, 3) interaction, 4) social behaviour, and 5) participation patterns (Herring, 2004: 3). Since this research tackles a range of issues, all five levels are examined, but it focuses primarily on the interplay between social structures and linguistic features within the digital contexts of communication.

3.2.2. Sociolinguistic Perspective: Micro/Macro Distinction

Though Internet Linguistics is a new branch, its scope is evidently very wide. However, it is still not very well covered. The sociolinguistic perspective is also critical in Internet linguistic studies. The different areas of Internet activities have given language new stylistic varieties. In addition, the interactive nature of communication on the Internet increases the informal use of language. Such themes and many others are tackled within the framework of ‘Internet sociolinguistics approach’ (Androutsopoulos, 2006). So, this research is tackled from a sociolinguistic approach to digitally-mediated communication, as it attempts to uncover the representation of sociolinguistic phenomena within one of the digital environments of communication, Facebook.

Both of micro- and macro-sociolinguistic approaches will be used throughout the interpretation of the research findings, as the researcher is not only interested in the social aspects of language use in Facebook but she attempts also to find out explanations to sociolinguistic phenomena in such new contexts of communication. Herring (2004) claims that

CMDA can be applied to micro-level linguistic phenomena as well as to macro-level phenomena. The former may include topics like lexical-choice, sentence structure, etc., while the latter deals with broader issues such as gender, identity, and so on (ibid). As for the distinction between the two approaches, Spolsky (1998: n.p.) states that:

At what is often called the micro end of sociolinguistics, the sociolinguist's goal might be to show how specific differences in pronunciation or grammar lead members of a speech community to make judgements about the education or economic status of a speaker (...). At the other – the macro – end of the spectrum, sometimes labelled the sociology of language as distinct from sociolinguistics, the scholar's primary attention turns from specific linguistic phenomena to the whole of a language or variety (...). In macro-sociolinguistics, we treat language (and a specific language) alongside other human cultural phenomena.

Actually, such distinctions are often drawn between different angles in interdisciplinary fields, in which emphasis can be put on one side rather than the other. In sociolinguistics for instance, emphasis can be placed either on the linguistic characteristics in relation to social variables such as education, gender, etc. or on broader social phenomena in relation to language.

As far as this research is concerned, both of linguistic features as well as socio-cultural explanations are tackled since “*there is a general agreement that both perspectives are indispensable for a full understanding of language as a social phenomenon*” (Coulmas, 1997: 2). In other words, the researcher does not only analyse linguistic behaviours but she also attempts to provide explanations to such practices within the Algerian context, both online and offline.

Accordingly, this research relies on new research methods that have been introduced to the field of linguistics in addition to re-appropriating traditional theories and concepts according to the changing contexts of language use in the digital world. It addresses, hence, mediated discourse in the context of communication domain and attempts to reveal the parameters that determine linguistic usages online, consequences of interaction between offline and online identities, and what the public think about such changes in communication and language. The paper concerns itself only with text-based communication alongside the inserted images as well as other typographic usages within discourse on Facebook, while it ignores sound and video communication. CMDA research is more likely to be undertaken through an empirical research paradigm as it is more suitable for such kinds of scientific inquiries.

3.3. Empirical Research Design

A better understanding of digital discourse requires empirical design as it is a data-based research that comes out with reliable, valid, and convincing conclusions that can be generalised and verified. Kothari (2004: 4) says that *“in such a research, the researcher must first provide himself with a working hypothesis or guess as to the probable results. He then works to get enough facts (data) to prove or disprove his hypothesis”*. In the same vein, Herring (2004) assumes that this kind of research must contain specific requirements: an answerable research question; selecting appropriate methods that address the research question and apply them to the corpus of data collected; finally, findings must be analysed and interpreted in relation to the main research question.

Actually, the current research studies empirically the Algerian sociolinguistic situation within Facebook. The hypotheses proposed by the researcher, as a result of her own observations and experience as an active Facebook participant, have been verified relying on a corpus collected from Algerian Facebook usages. Content later on has been qualitatively analysed with adopting also multimodal discourse analysis paradigm for the analysis of some selected multimodal texts. In addition to online observation and ‘screen data’ (the corpus collected from Facebook), the researcher also used semi-structured interviews and a questionnaire for the collection of more empirical data in order to confirm or disconfirm the hypothesis. So, in addition to the qualitative content analysis, a multi-method approach has been used to analyse results of the questionnaire.

Accordingly, empirical research methodology is more suitable due to its characteristics that meet the requirements as well as the objectives of this research. The researcher combined between screen and user-based data since they are perceived as complementary sources of data (Androutsopoulos, 2014). In this way, *“evidence gathered through experiments or empirical studies is today considered to be the most powerful support possible for a given hypothesis”* (Kothari, 2004: 4). Thus, the reason behind adopting an empirical research design is the fact that it is a means that contains all the requirements for conducting this research to reach the expected results and objectives. This methodology has been applied in the appropriate research setting, Facebook, and undertaken with the population that is concerned with language use in the digital environments of communication.

3.4. Facebook as a Research Site for Data Collection

Facebook has been used as a platform for collecting primary data because it fits the research aims. The research is mainly an empirical investigation of content collected from the site as well as observing how Algerians use language to communicate meaning, both via text-based and multimodal discourse. That is to say, Facebook is a source for authentic data as it is used in natural language situations and in real-world contexts. Actually, this serves the main research objective, which seeks to investigate the Algerian sociolinguistic situation within Facebook, one of the digital environments of communication. Since the researcher is interested in how languages and language varieties are used in Facebook by the Algerians, it is preferable to conduct research within the ‘Blue World’ itself instead of studying the phenomenon indirectly. This may ensure a better understanding of the Algerian digital sociolinguistic profile.

Actually, Facebook fits the research aims because of two major factors. On the one hand, it provides rich cyber spaces for people to communicate and practice their languages. On the other hand, this site is still dominant amongst the Algerians and it is attracting more active users rates each year, in spite of the availability of several other social network sites. In other words, variability of linguistic data as well as the popularity of the site stimulated my curiosity as a researcher in the field of sociolinguistics to investigate empirically whether Facebook is a mere copy of the Algerian sociolinguistic situation or it is reshaping it.

3.4.1. Linguistic Practices on Facebook

The site provides its users with several seducing services that meet the social nature of human beings. People on Facebook do not only maintain relations and build new ones, but they can also express their identities via multimodal discourse manners. In other words, Facebook is very rich in terms of sociolinguistic practices, for it contains a range of multimedia affordances where linguistic data vary. Thanks to the regular developments of Facebook technologies, users today can have synchronous audio-visual communication via the device’s webcam or they can switch off the camera and undertake only an audio communication. Such kind of communication can be asynchronous if users send a video or a recorded audio. Yet, this kind of communication is not amongst the current research agenda and might be planned for future research. The research before hands focuses on text-based communication that entails beneath multimodal elements such as the use of images, emojis, colours, etc.

Facebook brings together all categories of the Algerian society regardless of their social and regional belonging. This has been intensified especially with the proliferation of Facebook

groups and pages, in which people may interact via posting or sharing content, commenting or only clicking on the emoji that best represents their feeling towards what has been posted. These linguistic practices are rich and various, as they represent people's identities (their age, gender, education, regional belonging, etc.). They are also widely affected by the digital nature of the communication medium as well as the linguistic and semiotic resources provided within the site.

In addition to the various social variables that float to the surface once using language, Facebook is also an arena where all language varieties are given the floor to be represented and used, including varieties of Arabic and Berber, French, and English. Both of Arabic and Latin scripts are widely used for writing the aforementioned language varieties. Hence, Facebook witnesses the transmission of the 'war of languages' in the Algerian linguistic landscape to the virtual world. In other words, the site gives researchers of linguistics an opportunity to study how languages are used online and what consequences do they have in such digital, basically written, contact situations.

Furthermore, Facebook is predominantly used for interpersonal communication, i.e. it provides multifarious informal situations for people to express and exchange ideas, without being controlled, unlike in academic situations for instance. In other words, it is possible for researchers to observe language as it is naturally used in real-world situations. So, it is crucial to uncover how people behave linguistically in the light of the absence of standards and conventions to be followed. Does this lead to linguistic ruin or alternatively to linguistic creativity?

Accordingly, Facebook entails the three major elements required for this research, which is particularly interested in studying the interplay between the social variables of Facebook participants, the different language varieties used, and the digital contexts that govern people's behaviours. That is to say, it is possible for the researcher to study how language is being reshaped within one of the digital environments of communication and how users' social features can be inferred via language in spite of their physical absence.

Interestingly, such interplay is not only represented via the mediation of language in a text-based manner, but rather various multimodal elements are used. Facebook actually provides several means through which people interact with others and represent themselves. Any visitor to the 'Blue World' would observe how images, colours, scripts, emojis, symbols, letters, and even languages are used in strategic, significant, and creative ways to convey

specific meaning. Analysing these linguistic behaviours is one of the major objectives of this research to come out to the principal aim, which is about the characteristics of the Algerian sociolinguistic situation in Facebook.

In relation to these linguistic resources that are widely used on Facebook, people also make use of the communication possibilities provided. Participants do not necessarily need to type texts for posts and comments, as they can simply share others' posts or copy-paste them to their profile (as a status update) or to pages and groups. This is an interesting addition that changed the way people use language to communicate content. It is, thus, quite interesting to study scientifically these phenomena in order to investigate what impacts might these have on the Algerian sociolinguistic profile online.

All these linguistic practices mentioned above take place in different 'writing spaces' on Facebook. According to Barton and Lee (2013: 36), the writing spaces are "*spaces that provide the possibilities and constraints of what can be written, and what is likely to be written*". They continue in the same vein assuming that: "*we are particularly interested in the writing spaces because no matter how multimodal online texts are, the written word is still central to all forms of online interaction and content creation*" (ibid). In other words, in spite of the various possibilities of communicating meaning provided on the site, text-based communication is still prevalent. The writing spaces of Facebook are designed differently to serve different functions, the thing that may have tremendous impacts on language use, choice, and structure.

There are three spaces on Facebook designed for participants to write, attach, share, or copy-paste content. First, Status updates appear on top of the users' homepage/personal profile where they can write about what they are doing, thinking, or feeling at any moment (ibid). It was originally designed for micro-blogging (writing short messages on the web like in Twitter), i.e. users were given a limited space to invest for their status updates, in addition it was entirely text-based. Since late 2011, however, more text and multimodal content are allowed to be attached. Second, the commenting feature is another important writing space on Facebook that gives an opportunity for participants to comment on the status updates or comment on others' comments. It also allows its users to upload multimodal elements. Unlike status updates and comments, the third writing space is designed primarily for private and instant messaging between friends on Facebook. Hence, while the former writing spaces are mainly asynchronous in nature, the latter is basically synchronous. All these affordances and services, among others, have attracted a large popularity amongst the Algerians.

3.4.2. Ubiquity of Facebook in Algeria

In addition to the linguistic practices observed on Facebook (see item 3.4.1. above), the popularity and the ubiquity of the site in Algeria as well as in the Arab region and the entire world also motivated interest in investigating the Algerian sociolinguistic profile within this digital platform of communication. World Facebook users capture the highest rates of all social media usage, constituting more than 2 billion out of more than 3 billion social media users in 2018 (Zinoun, 2018). As for Facebook usage in the Arabic-speaking countries, more than 156 million Arabs use the site, Algeria is ranked second in the region after Egypt (ibid), with 20 million active users according to Facebook statistics in January 2020 ⁽¹⁾. Indeed, according to a report by www.z-dz.com (2020), Facebook is the most ubiquitous in Algeria amongst the other popular social network sites, namely: Instagram (4.90 million users), Snapchat (3.65 million users), LinkedIn (2.30 million users), and Twitter (846 thousand users).

It should be noted in this respect that the number of Facebook users in Algeria has witnessed tremendous growth in less than a decade, as according to the statistics provided by Socialbakers.com, in 2012 Algerian subscribers in the site were less than 3 million (2835000 users) constituting only 8.20% of the whole population (Boukada, 2012). Algeria ranked 47 in the world and the fourth in the Arab region in 2012 after Egypt, Saudi Arabia, and Morocco (ibid). So, comparing these statistics to the recent ones indicate the clear growth rates of the number of Facebook users in Algeria in a short period of time. This growth might be the result of the democratisation of the Internet through mobile phones in the country ⁽²⁾ on the one hand and the affordability as well as the availability of mobiles in the market, which is also still growing, on the other (www.m.elbilad.net, 2019). Whereas, rates of Internet connection in Algeria were very low if compared to the other Arab countries before the availability of Internet services via mobile devices.

Actually, statistics provided in 2019 by Hootsuite (a social media management platform) show that Algeria is ranked amongst the first countries in the world in Internet, mobile phones, and social media growth rates, as it is ranked 20th in the growth rates of Internet users and 19th in the growth rates of social media users in the world (ibid). Internet users in Algeria constitute 52% of the population (22.71 million users) and more than 51.4% use mobile phones for Internet connection (www.z-dz.com, 2020).

According to www.android-dz.com, men and women constitute 65% and 35% the countries' Internet penetration rates respectively. The majority of them are young people whose

ages are arranged between 18-24 years old, while the category aged between 25 -34 (ranked second) constitutes 39% of Algerian Facebook users. The majority of these users are of university level followed by secondary-school pupils. As for the regions that capture the highest rates of Facebook penetration in Algeria, the capital Algiers is ranked first with 31% of the whole Algerian Facebook population, followed by Oran, Canstantine, Setif, Batna, Ouaregla, and then Annaba. Such information didn't only determine the choice of Facebook as a research site for data collection and study but they also determine the choice of the population and the sample of the research under investigation.

3.5. Research Population and Sampling Techniques

Information today can be easily accessed and collected especially in the digital world, yet the researcher is required to collect only the data most relevant to the research problem. Even in this case, s/he will encounter enormous amounts of information. So, the researcher is supposed to select a sample from the whole research population. The latter is used as a cover term that refers to *"the total quantity of cases of the type which are the subject of your study"* (Walliman, 2001: 232). The former, however, entails only a small representative portion from the whole research population. Selecting a sample must be done via a specific method, known as a sampling technique, which is *"the procedure the researcher would adopt in selecting items for the sample"* (Kothari, 2004: 55). In this study, that aims at investigating the Algerian sociolinguistic situation in the digital environments of communication, the research population includes all Algerians who use digital media for communication. However, the research targets particularly users of Facebook, as it is the focus of this research.

Accordingly, in order to reach the research aims, different sources of data are required, especially due to the fact that the research is basically empirical in nature and results will be generalised to all Algerian users of Facebook. Interestingly, the research does not focus only on a specific age group, region, social class, gender, educational level, or any other specific category in the Algerian society. It aims, however, to uncover how all these fractions together construct digital communities on Facebook and how their linguistic, semiotic, social, and digital practices contribute to make a sociolinguistic profile in this advanced framework of communication platform. For that reason, the research stands on two parts: 'screen data', on the one hand, and ethnography, on the other (see the section of data collection below).

As for the parameters of selecting screen data, the researcher relied on a combination between two sampling techniques: random and sampling by themes. During the observation

process, the researcher was paying attention to every single element that might be related to the research objectives and once encountered, she collected them through copy-paste, screenshots, and saving content. Later, units have been selected by themes for the final qualitative analysis. Concerning the population observed, the researcher considered all her Facebook community, including Algerian Facebook-friends, groups, and pages.

As far as the procedure used for the questionnaire is concerned, a ‘snowball’ sampling technique has been used. This technique involved first identifying key individuals, who were asked then to suggest other members to participate. McNeill & Chapman (2005:50) say in this respect that “*the original small nucleus of people grows by adding people to it in stages, much as a snowball can be built up by rolling it along the snow on the ground*”. So, the questionnaire has been transmitted to respondents through different steps, just like a moving snowball. Finally, interviewees have been selected on the bases of what have I observed during online observation and what have I noticed during my interaction with some questionnaire respondents during the process of data collection. So, the overall subjects who participated in the research are 243 questionnaire respondents and 12 interviewees. As far as screen data is concerned, 49 illustrating examples have been selected for the qualitative content analysis. Methods and procedures of collecting the different kinds of data required for the research are also explained.

3.6. Methods and Procedures of Data Collection

According to Androutsopoulos (2014: 75), data collection in CMC research “*can be positioned on a continuum between ‘purely textual’ and a more ‘ethnographic’ approach*”. Since the digital environments of communication offer access to overwhelming amounts of linguistic usages, data can be collected directly without any contact with language users. On the other hand, researchers may also draw on ethnographic techniques such as observation and interviews for collecting data for close contact and collaboration with language users. That is, procedures of gathering data depend on the degree of researcher engagement, which range from minimal to full contact between the researcher and language users.

In this respect, many would think that CMC research is better approached from its source at first sight, i.e. via collecting ‘screen data’. However, linguistic practices online are more likely to be understood if analysed in their social context. For that reason, researchers are equally interested in the social activities that shape these behaviours in the digital world as well as how people perceive and evaluate such practices ⁽³⁾. Actually, “*screen and user-based data are therefore best seen as complementary sites of data collection in new media sociolinguistics*”

(ibid: 77). Accordingly, in order to meet the research objectives, the researcher opted for both sources of data collection: screen as well as user-based data.

As far as ethnography is concerned, it relies largely on the practices of participant observation (Bernard, 1998) in addition to interviews, particularly open-ended, semi-structured interviewing (Briggs, 1986). These are crucial data collection tools as they imply an involvement of the researcher in the routine activities of participants as well as learning about the daily behaviours of people directly from the selected social setting of the study. Besides online observation and semi-structured interviews, a questionnaire has also been used for the gathering of the required data. Data obtained through these techniques are interrelated and complementary. Online observation has been a long-term process, in which the researcher did not only field-noted observed behaviours but also served as a platform for collecting ‘screen data’ as well as constructing questions for both the questionnaire and the interviews.

3.6.1. Online Observation and Collection of Screen Data

Online observation is an important data collection tool since it is considered as a primary source of data, for it provides a direct access to authentic linguistic material and how languages are actually used in the virtual world. Androutsopoulos (2014: 77) defines online observation as *“the process of ‘virtually being there’, watching the digital communication you will eventually analyse as it unfolds on a web site or in a network of connections across sites”*. Online observation is particularly useful in public digital spaces where the researcher is able to have insights into participants’ language practices such as the topics tackled, linguistic features, social activities, social contexts that shape language use, etc. Via systematic observation of online environments, researchers also develop tacit knowledge that underlies linguistic usages of regular members (ibid).

According to Androutsopoulos (2014: 78), three practices of online observation can be distinguished: *revisit*, *roam around*, and *try out*. The first one refers to regular and interactive visits of researchers to the target site of data collection. In this process, they document routine activities related to their research objectives as well as the possible changes that occur within the site during their observations. Second, exploring the virtual ground can be handled via browsing around websites and their sections. However, whether researchers actively participate or lurk is subject to debate. Androutsopoulos believes in this respect that researchers must not end up analysing their own data. Finally, researchers may rely on available options of the online environment under investigation, such as search facilities, user lists, statistics, etc.

As far as this research is concerned, the researcher tries to take advantage of the three practices during the observation process. Actually, online observation constitutes the platform on which this research stands, as it is the main source of knowledge and data. Due to the fact that the researcher is mainly interested in the sociolinguistic practices of the Algerians on Facebook and that she is an active user of Facebook since 2011, observing language use in the site is crucial and unavoidable. This helped in gaining knowledge of patterns of language use as well as understanding the different contexts and situations that underlie such usages. Information about digital resources, participants' styles, and factors that determine these styles have also been obtained via the observation process.

Gaining such knowledge has been accomplished mainly through active participation, visiting the website regularly, and observing every single element that might have been relevant to the research objectives. This has been managed without a direct intervention of the researcher in the linguistic practices of participants online. In other words, though the researcher is an active Facebook participant, in the observation process tried her best to distance herself from people's linguistic practices and to hide her identity as a researcher in order to observe how language is used naturally and spontaneously without influencing the others' behaviours. She also tried to benefit from digital facilities provided within the site as well as by the device used, either a computer or a smartphone. For instance, in collecting screen data, she saved lots of links of interesting and relevant linguistic behaviours thanks to an affordance provided within Facebook ⁽⁴⁾, where all participants are able to choose whether to save, delete, or hide the posts, etc.

3.6.1.1. Screen-Data Collection

In order to investigate the Algerian sociolinguistic situation within Facebook, collecting screen-data, "*digital written language produced by people online*" (Androutsopoulos, 2014: 78), is necessary. On the one hand, such data depend on technological sophistication of software programs used by the researcher for collecting and analysing data and on the options provided by the modes or environments under investigation, on the other (ibid). Conversations are generally saved automatically in synchronous chatting and messaging applications. In addition, web forum pages can be copy-pasted or downloaded and the researcher need to use software programs for data treatment. Last but not least, online content can also be saved as screenshots. Throughout screen data collection procedures, the researcher relied mainly on copy-paste of data from Facebook, saving links, and screenshots.

Due to the vast amounts of textual data available on Facebook, it is impossible to examine all phenomena relevant to a particular research question. For this reason, researchers must select a sample from the available data. Like any empirical research, the data sample in CMDA must be appropriate in nature and size to attain the research objectives (Herring, 2004). For the purpose of this research, data are selected as they occur naturally by participants on Facebook, and collected by the researcher through screenshot, copy-paste, and saving links, rather than obtained experimentally.

3.6.1.2. Sampling Techniques

Selecting appropriate screen data may proceed on several sampling criteria depending on the research objectives. Herring (2004: 351-354) distinguishes six sampling techniques in her CMDA framework: random, by theme, by time, by phenomenon, by individual or group, and by convenience. Each of these techniques has advantages as well as disadvantages. In the table below, details about the six sampling techniques are provided.

Table 2: Sampling Techniques of Data in CMDA

Sampling Techniques	Advantages	Disadvantages
Random (e.g., each message selected or not by a coin toss)	Representativeness; generalisability	Loss of content & coherence; requires complete data set to draw from
By theme (e.g., all messages in a particular thread)	Topical coherence; a data set free of extraneous messages	Excludes other activities that occur at the same time
By time (e.g., all messages in a particular day/week/month)	Rich in context; necessary for longitudinal analysis	May truncate interactions, and/or result in very large samples
By phenomenon (e.g., only instances of joking; conflict negotiation)	Enables in-depth analysis of the phenomenon (useful when phenomenon is rare)	Loss of context; no conclusions possible re; distribution
By individual or group (all messages posted by an individual or members of a demographic group, e.g., women, students).	Enables focus on individual or group (useful for comparing across individuals or groups)	Loss of context (especially temporal sequence relations); no conclusions possible re; interaction
Convenience (whatever data are available to hand)	Convenience	Unsystematic; sample may not be best suited to the purpose of the study

Herring (2004: 11)

Hence, researchers in digital environments face unlimited amounts of data and their subjects of choice must suit their research questions and objectives. Samples can be randomly selected. In this case, units of analysis can be equally represented; this leads accordingly to representativeness and generalisability of results. However, this may also result in the loss of context and coherence, which are crucial for a better understanding of findings. Researchers can also focus on a specific theme for their selection of data. This may happen at the expense of other co-occurring discourse activities of the same users. For longitudinal studies, particularly, sampling by time is often more useful as it is rich in context. Yet, this may yield to a collection of large samples. Another sampling technique that researchers may rely on, is to focus on a specific phenomenon like features or patterns of language use. Though this enables

an in-depth analysis of the phenomenon selected, it may result in loss of context. Besides, sampling by individuals or groups can be rich in terms of sociodemographic information and it is more likely to provide focused analysis of users, but this may happen at the expense of studying interactional exchanges of participants. The sixth sampling criterion is to select any data available (sampling by convenience). It was popular by the beginning of CMC research, but this result in unsuited samples because of the lack of a systematic selection. So, all the sampling techniques can be useful to some extent, but researchers are required to take into account the disadvantages that each of them entails.

According to Herring (2004), there can always be an overlap between different sampling techniques, as one may automatically lead to the other. For instance, since temporal sampling is rich in context features, it will include accordingly coherent threads and this will incorporate thematic sampling as well. Thematic sampling, in turn, is generally managed in respect to time, enabling long-term observations to be made. She also assumes that these two sampling techniques are widely favoured in CMDA research due to their multiple advantages. Androutsopoulos (2014: 79) says in respect to these sampling criteria, as far as their advantages and disadvantages are concerned, that combinations between two or more criteria are more common. Screen data selected for this research is also based on a combination between different sampling criteria in order to meet the research objectives on the one hand and to overcome some of their disadvantages on the other, because they are perceived throughout this research to be complementary. Equally important, researchers also have to take into account the research participants who use the required linguistic behaviours online.

3.6.1.3. Research with Participants in Digital Environments

Though screen data can be easily accessed in the digital environments of communication, researchers do not have the ultimate freedom to collect whatever data they want. For ethical considerations, researchers are required to respect users' privacy issues. Sometimes, contacting participants for their permission for participation or collecting data is necessary. Whether to contact them at an initial or a later stage of the research process depends largely on the research question and the type of data (Androutsopoulos, 2014). It is a precondition to obtain participants' permission for analysing data collected from private or semi-public environments such as emails, text-messages, or social networking sites. Yet, contacting participants can be postponed to a later point after a period of online observation when the research is concerned with data of publically accessible language because in such environments, permission is not legally required (ibid).

As far as this research is concerned, the researcher relies on both private as well as publically accessed data. Collecting data is managed via Facebook affordances such as saving posts and links and copy-paste of selected data, in addition to screenshots. In other words, the researcher in such cases do not necessarily ask for the permission of language users on Facebook. However, in data treatment and analysis no indication of people's identities is included. That is, the researcher hides people's names and profile pictures if they are real personal photos. As for the data collected from private messaging and individual postings, the researcher does not use any data without permission from the people concerned and this takes place before the process of data collection.

3.6.1.4. Procedures of Screen Data Collection

I have been observing Algerian linguistic practices in the period between 2014 and 2020 and I collected as much data from all relevant sociolinguistic phenomena I encountered as possible. These data have been gathered from the different Facebook writing spaces: status updates, comments, and private messaging, of Facebook pages, groups, and contacts (either in my contact list or not). So, since the beginning of the observation phase, I joined many pages and groups that include people from all social and geographical belonging and I accepted many friend requests in order to make sure that all possible sociolinguistic practices of the country's different social categories will be represented, including people of different age, gender, region, socioeconomic status, and education backgrounds, for the sake of reliability and generalisability of the results obtained.

Collection of the required screen data was random, as I screenshotted, saved, and downloaded any relevant Algerian linguistic behaviour I encountered during observing language use on the research site. Then, I organised them in different files according to the themes they entail, which include five broad categories: 1) linguistic features, 2) scriptural practices, 3) new multilingual encounters, 4) paralinguistic displays, and 5) multimodal discourse.

The last phase of data selection was to modify the form of screenshots for use through removing the unneeded parts and hiding personal information of Facebook users (profile pictures and names) for the sake of confidentiality. These modifications have been managed thanks to technical facilities provided by my smartphone. Finally, 49 illustrating examples have been employed for screen data analysis. Thus, after observing how languages are used by the Algerians on Facebook and selecting the required screen data for study, the researcher

supplements these data collection tools with a questionnaire distributed to Facebook users for the sake of reporting their linguistic practices on the site.

3.6.2. Questionnaire

The questionnaire is an important data collection tool since it enables gathering as much as possible of the required information from the target population and it facilitates collecting maximum data from a considerable number of respondents. That is, such instrument makes the collection of data easier and fruitful, as in the same period many respondents can answer the same questions. Questions and items of the questionnaire are the researcher's own production, as they have been drawn according to what suit the research objectives and themes. Yet, the ideas have been inspired from previous research findings and from her own observations and experience as an active Facebook user since 2011.

Before reaching the final version of the questionnaire (which took about four months to be accomplished), its construction and design passed through different stages in order to arrive at the highest degree of reliability, feasibility, and validity possible. A first version has been given to two teachers from two different universities in Algiers. One of them has a PhD degree and has a very good mastery of Standard Arabic, the other one is a professor who has an important background about the sociocultural situation of Algeria. After taking into account their comments about language, items, and topics of the questionnaire, a second version has been sent to two of my Facebook friends (a kind of a piloting study to check the feasibility of the questionnaire).

The first one is a female, she is 27 years old and she has a master in architecture. The second one is a male of 32 years old and he has a middle-school educational degree. The main aim behind this piloting is to check whether different categories of society can understand the questions and accordingly can answer them. Indeed, considerable differences have been found in their comments due possibly to gender differences as well as to the huge difference in their educational degrees. While the first one said that the questions are comprehensible and the fact that respondents are only required to choose and tick the appropriate answer makes it an easy task for them, the second one, on the other hand, commented that it is a bit long and he found difficulties in some questions.

Hence, because the research population concerns all strings of the Algerian society including people with little education, it was crucial to make sure that anyone can answer the questions. The last step in constructing the questionnaire items and questions, was giving the

modified version to professor Benmoussat, the director of this PhD research, for his evaluation, remarks, and approval. A final version has been provided after taking into consideration all remarks. The four subsequent sections provide details about objectives, form, components, and distribution of the questionnaire.

3.6.2.1. Objectives of the Questionnaire

The questionnaire has been designed according to what suit the research themes and objectives. It aims primarily to figure out the main linguistic practices and behaviours of the Algerians on Facebook, including their language and script choice and performance as well as their attitudes towards some linguistic usages online. This will help in determining the Algerian sociolinguistic profile in one of the digital environments of communication. At this point, we can infer whether the outstanding and defining features of the complex traditional ⁽⁵⁾ situation are vigorously preserved online or rather, the digital world draws on its own resources to construct a new profile that suits the technological context. In addition, this may even help us foresee the consequences of the interaction between the offline and the digital worlds bearing in mind that the actors are approximately the same members, except those who do not have access to the online world and they are mainly old people and some people with little education.

Accordingly, the questionnaire tackles four broad units or dimensions in order to attain the main research objectives, the representation of the Algerian sociolinguistic profile on Facebook. These units are: 1) script choice and performance, 2) language choice in the different writing spaces of Facebook in addition to the different text-based communication situations, 3) linguistic characteristics of Facebook usages, and 4) attitudes towards the impact of Facebook on languages in Algeria. Several topics are included within the aforementioned dimensions; they are mainly:

- Factors of script choice, switching, and fusing.
- The phenomenon of digraphia and possible socio-political explanations.
- Differences across genders, educational backgrounds as well as ethnic groups in script choice and performance.
- Factors that led most Algerians use the Arabic script rather than Latin, which has been widely used a few years ago to represent Arabic writings in spite of the availability of the Arabic script.
- The digital representation of diglossia and the contemporary Arabic levels in text-based communication.

- The status and use of Standard Arabic.
- The relation between the three world languages (Arabic, French, and English) in the Algerian digital context.
- The position and use of Berber within the digital environments of communication in the light of contemporary political changes that goes in favour of its full standardisation.
- Factors that determine language choice online.
- New multilingual encounters and trans-lingual practices that are mainly the outcome of digital and linguistic resources.
- Use of abbreviations and symbols and the impact of such linguistic practices on languages in general.
- Usages of digital semiotic resources, such as images and other visual resources, alongside language in the process of meaning making and identity representation.
- CMC cues and the extent to which they substitute the physical absence of interlocutors in the anonymous nature of online text-based communication.
- The impact of social variables such as age, gender, education, ethnicity, region, and occupation on language use and performance online.
- Gender stereotypes and their impact on linguistic behaviour on Facebook.
- Differences in linguistic practices in synchronous and asynchronous modes of text-based digital communication.
- Attitudes towards the impact of Facebook on Colloquial Arabic, Berber, Standard Arabic, and their relationships in relation to world languages such as English.

Thus, these topics constitute the major components of the questionnaire. In other words, questions and items have been constructed and designed so as to meet these research objectives. Findings, then will be interpreted according to the digital realities, other results from the other data collection tools, the relevant literature in the field of language and the Internet, and the literature that dealt with the complex sociolinguistic situation of Algeria. For a better understanding of the questionnaire and its aims, more details about its form, questions, items, and content are presented below.

3.6.2.2. Form of the Questionnaire

The questionnaire is organised into several interrelated sections, which have been designed according to the research objectives and hypotheses. It opens up with a short introduction where the researcher explains briefly the research theme and asserts that all

gathered data will be used exclusively for scientific purposes. The aim of this introductory paragraph is mainly to gain respondents' confidence and, hence, willingness to participate in the research. As for the kind of questions adopted, all of them are close-ended and they are two types. Questions 2, 4, and 7 are close-ended but respondents can choose more than one option. In the other questions, however, participants have to choose only one answer. Such kind of questions have been selected because of many factors:

1- They are easy for the research participants to answer and for the researcher to study and analyse;

2- People do not know much about the issues tackled, especially that the questionnaire is open to include all portions of the Algeria society that may include people with little education, old people, and even teenagers or children;

3- Open-ended questions require more space for the answers and this will lead accordingly to either a construction of a long questionnaire or the omission of important questions and items to avoid a lengthy questionnaire. A long questionnaire will reduce interest in answering the questions, especially in a digital environment where people got acquainted with reading and writing less than usual. Hence, such kind of questions guarantee the possibility to include as much items and questions as possible;

4- Last but not least, respondents' choices and answers, accordingly, will be used as a raw material and it is up to the researcher to analyse and interpret results in relevance to previous research findings and her own experience and observations since she is an active Facebook user since 2011.

The use of tables constitutes an important feature of the questionnaire as it takes two out of its three pages. Tables were used mainly for pragmatic purposes, as they preserve space and make it possible to include more items and, hence, more research topics. They are also important because they make it easier for the respondents to answer since they are only required to read the items and put a cross (X) in the suitable gaps.

Two types of tables have been employed. One table (question 7) is in a form of multiple-choice answers: the first column includes the items, while the other columns include the choices respondents need to cross. This type has been designed to include the writing spaces of Facebook and the domains of language use, on the one hand, and the languages that can be used in these different situations, on the other. The other three tables (questions 6, 8, and 9) are in a

form of five-point Likert scale: answers are either arranged from “always” to “never” (questions 6 and 8) or from “strongly agree” to “strongly disagree” (question 9).

Likert scale is widely used in social sciences as it makes it possible to study quantitatively qualitative data that are required to be measured to give mathematic results for the sake of providing exact and reliable results. Such scale is used to study people’s attitudes, for instance. Attitudes are subjective and need to be studied objectively. In addition to that, answers are most of the time arranged in a continuum rather than having an exact position of discrete answers like yes/no, always/never, or agree/disagree.

As far as the language used in writing the questionnaire is concerned, the researcher has chosen Standard Arabic represented in the Arabic Script for the version to be distributed to the research participants and an English version for the academic use in the PhD text before hands. This form of Arabic has been chosen instead of the other languages used in Algeria (including Algerian Arabic, which is widely used online, Berber, French, and English) because it is the lingua franca that links between the different social groups in the Algerian society due to the fact that it is the official language of the country since independence in 1962, i.e. it can be understood by any Algerian who uses Facebook.

3.6.2.3. Components of the Questionnaire

The questionnaire is made up primarily of five complementary sections. The first one provides background information about the research respondents (age, gender, educational level, regional belonging, occupation, the device used for Facebook connection, and daily average for Facebook usage). Section two is related to participants’ script choice and performance. Language choice in the different Facebook writing spaces occupies the third section of the questionnaire. The fourth one is devoted to uncover the main linguistic characteristics of Facebook usages. The last section deals with people’s attitudes towards the impact of Facebook on the language varieties used in Algeria.

i. Background Information

The first part is devoted to collect personal information about respondents: their age, gender, regional belonging, educational level, and occupation. Such information are important in a sociolinguistic research and it is traditionally known in the literature that language choice and performance are determined to a great extent by who the users are. So, the main aim of this section is to study the impact of users’ identity on linguistic practices and behaviours in the

light of an anonymous nature of communication, where participants are not physically present. Another objective behind investigating these background information is to see whether language use online exhibits any similarities with offline linguistic behaviours or they are quite different due to the influence of the new context. Five social variables are integrated in the research:

- a- Age:** respondents have to choose one of the five proposed options: 1) less than 20 years; 2) from 21 to 25; 3) from 26 to 30; 4) from 31 to 40; 5) more than 40. Actually, people are supposed to use language differently depending on their age.
- b- Gender:** findings of previous research argue that gender plays a great role in determining language use, both offline and online. This research also attempts to study gender linguistic differences in the Algerian context online from both micro and macro-sociolinguistic perspectives as it tries to provide socio-cultural explanations of some gender-related linguistic behaviours.
- c- Regional belonging:** the regional options provided for selection (1-east, 2-centre, 3-west, 4-south) depend mainly on the four major regional dialects of Arabic in Algeria. Respondents are also required to mention the Willaya where they live. This is important because on the one hand it helps knowing the ethnic group of the respondent (Arab or Berber) and on the other hand if s/he is a Berber, from which group exactly. Such information is very important for the analysis of results especially as far as language and script choice are concerned. Another important objective behind this item is to compare findings to previous results (Zahali, 2013), which showed that there are remarkable differences across regions as far as the representation of some Arabic sounds in Latin script, script and language choice are concerned.
- d- Educational level:** research participants are asked to tick on the blanc that represents their educational background (1-primary, 2-middle, 3-secondary, 4-university, or 5-post-graduation). In addition, they are also required to mention their specialty of education if they have secondary level or more. Education plays a great role in shaping linguistic behaviours, it determines for instance the level of Arabic used and it has to do with language and script choice.
- e- Occupation:** five options have been provided (1-employer, 2-unemployed, 3-student, 4-free job, 5-pre-employment). Previous research indicates that the majority of Facebook users are university students, yet the researcher hypothesises that due to the use of mobile devices more social categories are interested in using the website.

f- The device used for Facebook connection: this section contains three options, whether 1) a personal computer, 2) smartphone, or 3) tablet. Actually, the screen of each device differs from the other and this may determine language use online. Besides, because handled/mobile devices are affordable, easier to use more social categories have joined the online world that is no longer monopolised by techno-literates. In addition, due to the fact that many people use smartphones, an online questionnaire have been used for the collection of data in this research rather than traditional format.

g- Daily Average of Facebook Usage: three options have been provided: 1) less than one hour, 2) about two hours, 3) more than three hours. The researcher assumes that the majority use Facebook more than three hours per a day and this indicates the significance of the research before hands, as this site is embedded in the daily life of most Algerians. Accordingly, it is crucial to investigate the linguistic behaviours of people online to whether the characteristics of the sociolinguistic situation have been preserved in the digital world or not.

ii. Script Choice and Performance

Respondents are asked to indicate:

- First, the script they use for text-based communication in Facebook (1-Arabic, 2-Latin, or 3-both of them).
- Second, how do they write some Arabic sounds that are not represented in Latin script, if they use it. These Arabic sounds are: ق، غ، ع، خ، ح، ء.
- Third, the reasons that lead people to use Latin script to write Arabic or Berber instead of the Arabic script.

The main objective of this part is to know the script that is used the most by the Algerians for their linguistic usages, especially because Facebook text-based usages are overwhelmingly informal where people use the vernacular most of the time; bearing in mind that the two major Algerian vernaculars (dialects of Arabic and Berber) are not officially codified. In addition to that, previous research findings indicated that Latinized Arabic was dominant, yet due to the rapid changes in technological developments as well as more adoption of social media, changes in script choice may occur. Hence, this research also attempts to investigate whether there are any changes in script choice and performance in the light of these circumstances. Another important aim is to see the impact of social variables such as region, ethnicity, gender, and education on script choice.

Besides, the factors that lead people to choose Latin script rather than or in addition to Arabic in the different situations of language use in spite of the availability of the latter also attracted the curiosity of the researcher. For that reason, the items included in the table for selection have been designed to cover five major dimensions for script choice:

- technical constrains,
- linguistic facilities of Latin script,
- user's abilities and attitudes towards the scripts,
- the interlocutors,
- the image one wants to transmit about him/herself via the script chosen,

To reach this aim, the researcher provided a table of twelve possibilities and respondents are required to tick either "always", "generally", "sometimes", "rarely", or "never" to indicate what is the suitable answer for every item.

Table 3: Factors of the Use of Latin Script to Represent Arabic or Berber Instead of Arabic

statements	always	generally	sometimes	rarely	never
1- the device I use does not contain the Arabic and Berber scripts					
2- Latin script is more suitable					
3- I spend more time when I use the Arabic script					
4- to communicate with educated people					
5- to communicate with those who use Latin script					
6- Latin script is easier for me to use					
7- it enables me to use abbreviations, symbols, and numbers instead of writing whole words and sentences					
8- because the vernacular contains many foreign words					
9- I find difficulties in using and understanding Latin script					
10- so that others will not think I am backward					
11- Arabic script fails to transmit the ideas I want to express					
12- using it gives the impression to others that I am an educated and cultivated person					

*This is the first table in the questionnaire. It has been designed by the researcher according to what suits the research objectives. It contains the possible factors that may explain why do Algerian Facebookers use Latin script to represent Arabic or Berber. These items, suggested by the researcher according to her readings and experience as a Facebook user, attempt to answer question 6 of the questionnaire (Why do you use Latin script to represent Arabic or Berber?).

iii. Language Choice on Facebook Writing Spaces

Language choice has always been a complex topic in the field of sociolinguistics as several factors intervene in the construction of language. In Facebook, things are becoming even more complex due mainly to the electronic and anonymous nature of communication as well as the various domains and writing spaces provided. This section has been summed up within a table that includes fourteen statements corresponding to the main factors and circumstances or situations that make people switch between different language varieties. These statements can be arranged into six major dimensions:

- the writing spaces of Facebook (status updates, comments, and instant messaging),
- the kind of communication (synchronous or asynchronous),
- the topics tackled,
- the language used by the interlocutors in the different writing spaces,
- the interlocutors,
- in addition to characteristics of the users themselves (their age, gender, education, ethnicity, region, etc.).

Respondents have to read the statements and tick the language(s) they use for each case. They have been given six choices: “Standard Arabic”, “Colloquial Arabic”, “Berber”, “French”, “English”, and “a mixture of languages”. These constitute the language varieties which are most widely used in Algeria. As for the last option (mixture of languages), it is a form of language use that is widely present in Facebook since people do not always use only one language in writing but they mix between at least two linguistic forms, sometimes within the same sentence. This may lead us to explore when and why do people mix between languages online because in some cases they do not mix and they keep using the same language for a while.

So, this section will deal with language choice in the writing spaces of Facebook because it is observed that language is employed differently in status updates, comments, and instant messaging. The latter is often characterised by the spontaneous use of language because communication takes place in private and it is instantaneous, while in comments and status updates people pay more attention to linguistic characteristics. Standard Arabic is also widely used in asynchronous communication. This leads us to shed light on two important aspects:

diglossia on the one hand and the new digital domains provided by Facebook for the use of Standard Arabic, on the other.

Language also differs according to the interlocutors; users of Facebook do not speak to close people in the same way they talk to newly added friends or to those with higher education. In addition, language choice may depend also on the language used by the others, as people tend to accommodate to their language (they either converge or diverge their style). Language accommodation is also observed in Facebook groups and pages that join together people from different countries or social groups.

Table 4: Language Choice in the Different Text-based Communication Situations on Facebook

Statements	Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing
1- To comment						
2- To chat in private						
3- To post/update status						
4- To share status/posts						
5- To communicate with people who use Standard Arabic						
6- To comment and communicate with members of groups who belong to different Arab countries						
7- To post picture comments						
8- To post and comment on religious topics						
9- To communicate with people who do not master Arabic						
10- To communicate with close people						
11- To communicate with new friends						
12- To communicate with people of High level of education						

*This is the second table in the questionnaire. It contains fourteen statements about important cases of Facebook text-based communication in which people may use language differently, switch, or mix between languages. Hence, they are required to tick the language(s) they use in each situation. The researcher has designed this table in a way that suits one of the research aims (language choice).

iv. Characteristics of Facebook Linguistic Usages

This section is about the linguistic practices that are widely used by the Algerians in Facebook. Fourteen statements have been suggested and they are closely related to the different research topics and aims. These statements are categorised into five aspects:

- language mistakes,
- CMC cues,
- the use of linguistic and semiotic resources,
- usages of scripts,
- and the impact of Facebook on users' level in foreign languages.

Respondents are required to choose the closest answer to their usages for each statement, therefore they are required to tick either “always”, “generally”, “sometimes”, “rarely”, or “never”.

Language use in the new media of communication is said to be quite different from traditional/offline usages, as they do not only bring about a revolution in human communication but even language use has been altered as well. Crystal (2006a: X) in this respect believes, *“what is immediately obvious when engaging in any of the Internet’s functions is its linguistic character. If the Internet is a revolution, therefore, it is likely to be a linguistic revolution”*. Hence, this section aims to investigate the extent to which Facebook leads to linguistic revolution in the Algerian context online.

The most widely observed linguistic feature of online usages are the spelling and grammar mistakes in addition to the over use of abbreviations, acronyms, shortenings, symbols, etc. instead of writing grammatically correct structures. Such usages can be due to several factors like the interactive nature of communication, where users need to be as rapid as possible in typing messages in addition to the linguistic resources provided within the digital world such as automatic correctors. This may create linguistic laziness, in which people rely on the device to correct mistakes or they use the words suggested while communication.

Interestingly, the anonymous character of communication (the physical absence of interlocutors) also affects language use in text-based communication online. Due to the absence of important physical cues such as tone of voice and facial expressions, people often use more text as a substitute. They also use digital semiotic resources such as emojis, images, and they

play with the possibilities of the keyboard/keypad. For instance, they use repeated letters and punctuation marks like exclamation and question marks for non-verbal displays.

Moreover, the digital resources make it possible to use some languages and linguistic varieties that are not widely used offline or their usages are so restricted to few domains, areas, and people. For instance, Standard Arabic is traditionally used in official and religious domains; Algerian Arabic is only spoken; Berber is only used in the Berber-speaking regions and it is most of the times oral except in few cases like education; French is mainly the language of some educated elites and used sometimes in administrations; last but not least, English is only used in departments of English in universities. People in Facebook do not need to have a good mastery of these varieties to use them. They can simply copy-paste texts in any language; they can use the words suggested by the device, or the auto-corrector while writing; or they use online and electronic translators when they find difficulties.

Accordingly, people may have their level in languages improved, as they are exposed to them and they have the ability to use them. In addition to these digital resources that boost language acquisition, joining different Facebook groups and pages can be very helpful. Yet, relying too much on the digital resources can have negative consequences as well. This might lead to technological dependency, i.e., in offline situations of language use (either spoken or written), people may have more mistakes due to the fact that they got acquainted with these digital features like copy-paste and auto-correctors rather than relying on their linguistic abilities.

Another important aspect to be investigated in this section as far as the linguistic behaviours on Facebook are concerned is about the scripts used and the ways they are employed. Phenomena like script switching and fusing are widely present online. More importantly, Algerians do not only use Latin script to represent Arabic meanings but they also use the Arabic script to write French and English words and expressions.

All these linguistic manifestations investigated in this section will be also related to the different social variables. That is to say, the research is also interested in the differences of linguistic practices according to the respondents' gender, age, region, and educational level. Each statement will be studied in relation to the variable(s) that is/are supposed to have impact on it. Thus, analysing the research participants' answers to this table will give us a better understanding of linguistic behaviours of the Algerians in Facebook.

Table 5: Characteristics of Facebook Linguistic Usages

statements	always	generally	sometimes	rarely	never
1- I give importance to accuracy and I correct language mistakes.					
2- The absence of users' voice and facial expressions hinders understanding the real meaning of messages, posts, and comments.					
3- I find myself obliged to clarify and explain more when interlocutors find difficulties in understanding the real intentions of my messages and comments.					
4- Use of Emojis and images is an important addition to the modern means of communication, as they reduce misunderstanding and clarify the real intentions of messages.					
5- My level in languages has improved because I communicate with people who use foreign languages in addition to joining groups and pages with linguistic and cultural diversity.					
6- My level in languages has diminished because I rely on the device to correct mistakes, for instance I commit many mistakes when I write in a traditional way.					
7- I use in comments and sharing other's posts some languages that I do not use a lot offline (like Standard Arabic/English).					
8- My mistakes in writing are numerous because I write rapidly and I give importance to meaning more than accuracy.					
9- I use abbreviations and symbols in writing instead of long sentences.					
10- I make use of the words suggested in the mobile in writing to avoid mistakes of spelling.					
11- I copy-paste ready-made expressions and paragraphs in posts and comments.					
12- I write some French or English words and sentences in the Arabic script depending on their pronunciation.					
13- I use both Arabic and Latin scripts in conversations in private, comments, or posts. For example, I start writing in Arabic script then I use Latin script, and then I use again Arabic script.					
14- I mix between Arabic and Latin scripts in the same word like in انجليزية.					

*This is the third table in the questionnaire, it is about some selected linguistic behaviours in text-based communication on Facebook. It studies how languages are used by the Algerians online and how differences in gender, age, education, and regional belonging influence language use.

v. People's Attitudes towards the Impact of Facebook on Languages in Algeria

Items of this section have also been included in a table for pragmatic purposes: respondents would find it easier to answer. In addition, the table is able to include more statements and topics that serve the research objectives. Investigating people's attitudes towards language use in Facebook is crucial in this research. After dealing with the different linguistic practices of the Algerians online, it is important then to know what do they think of these usages and the position of the local linguistic varieties in the digital world in the light of the rapid technological developments that are mainly headed by world languages such as English.

Actually, language is not a mere means of communication, but rather it represents people's identities, cultural belonging, and socio-economic status. People are always worried about the negative consequences of globalisation on local languages and cultures. This fear has been intensified after the public use of the Internet mainly for interpersonal and cross-cultural communication. Hence, one of the major issues discussed due to the linguistic outcomes of the Internet is the extent to which English is prevalent online and what effects this might have on languages worldwide.

Another important issue tackled is the position of world languages online, because not only minor languages which are affected negatively but even international languages such as Arabic and French due to the fact that English monopolises almost all technologies of communication because it is widely used as a 'lingua franca' in online communication. Moreover, Arabic, which has strong ties with the Islamic culture, is said to be threatened by the global spread of English on the one hand and its emergent linguistic consequences in the new media of communication, on the other. In order to tackle these issues and others, the following table has been given to the research respondents as part of the questionnaire.

Table 6: People's Attitudes towards the Impact of Facebook on Languages in Algeria

Statements	I strongly agree	I agree	sometimes	I do not agree	I strongly disagree
1- Facebook contributed to the spread of Colloquial Arabic at the expense of Standard Arabic.					
2- Facebook gave new domains to Standard Arabic that has previously been used only in official, academic, and religious situations.					
3- Facebook gave the Arabic language an opportunity to cope with modernity.					
4- The language of Facebook is dangerous on the Arabic language.					
5- Facebook contributed to the use and spread of Berber.					
6- It contributed to the spread of Arabic at the expense of Berber.					
7- The status of Arabic has been reduced because of the over use of foreign languages especially English, the language of science and technology.					
8-The use of French has been reduced amongst the Algerians in Facebook due to the spread of English in social media.					

*This is the fourth table in the questionnaire. It contains eight statements and respondents are required to tick either "I strongly agree", "I agree", "sometimes", "I disagree", "I strongly disagree" to represent their attitudes towards the impact of Facebook on language use in Algeria.

3.6.2.4. Distribution of the Questionnaire

The questionnaire has been distributed in the period between mid-November to the end of December 2018. It has mainly been administered online, either via Facebook or emails, except in some cases in which hard copies of the questionnaire have been given. The first step of questionnaire distribution was to identify key individuals who have the research requirements. Actually, any Algerian who uses Facebook is a subject of study; i.e. the target population is open to include different categories of the Algerian society, including people with different age, gender, regional belonging, educational level, and occupation backgrounds. Yet, the researcher tried to make sure that the different categories participate.

After identifying these individuals, who are part of the researcher's Facebook friends' list, the researcher requested their participation, explained the questionnaire objectives, and asked

them to transmit it to their Facebook friends ⁽⁶⁾. Thus, “*the original small nucleus of people grows by adding people to it in stages, much as a snowball can be built up by rolling it along the snow on the ground*” (McNeill & Chapman, 2005:50). The snowball sampling technique was so effective since the questionnaire has been transmitted to respondents through different steps, just like a moving snowball. In addition, the researcher also asked from admins of two Facebook pages to post the request on their pages’ status updates. Only one admin from one page answered and accepted to do so. Besides, the researcher posted the request on two Facebook Groups.

The use of Facebook as the main vehicle for the distribution was so helpful; it did not only guarantee the involvement of different categories from the Algerian society, but even the digital facilities afforded by the site helped in the good ran of the operation. Services like copy-paste and transmission of messages on Facebook have had pragmatic roles, especially in preserving time and effort. Instead of rewriting messages to every research participant, which was barely impossible, it was enough to transmit the same message to many subjects, except when further clarifications were required.

Interestingly, collecting data from far distances in a large country like Algeria would have been impossible without a ubiquitous and a popular site like Facebook. Actually, responses have been received from almost all the forty-eight (48) Willayas of the country ⁽⁷⁾; including the east (like Setif, Jijel, Canstantine, Annaba, Kala, Skikda, etc.), the centre (for instance, Algiers, Blida, Tipaza, Bouira, Boumerdas, Ain Defla, Media, etc.), the west (like Tlemcen, Oran, Sidi Bel Abbes, Ghilizane, Chlef, Mostaghanem, etc.), and the south (such as Tamenrasset, Illizi, Adrar, Tindouf, Bachar, Laghouat, etc.). These four categories have been selected because they represent the four major regional groups of dialects observed in Algerian Arabic, for instance according to Taleb Ibrahimi’s (2004) classification. In addition, semi-structured interviews have also been used for the collection of data.

3.6.3. Semi-Structured Interviews

Another important method in ethnography is interview, particularly open-ended, semi-structured interviewing (Briggs, 1986). The interviews have taken place after selecting the required participants, via the mediation of Messenger and phone conversations. Most of interviewed participants are my Facebook-friends, who have been chosen for specific reasons, mainly because they represent specific categories of the target research population. That is, they have been chosen because of their gender, age, ethnicity, educational level, regional belonging,

or particularities observed in their linguistic behaviours. Accordingly, the questions asked differ from one participant to another since they represent different cases under investigation.

This data collection technique serves as a supply to the other methods since its questions' role is mainly to cover the parts of the research that can be obtained neither through the observation and the questionnaire nor via screen data. Actually, online observation is based heavily on the researcher's own descriptions and interpretations of behaviours that take place on Facebook. The questionnaire collects maximum data from respondents who are required to choose the appropriate item(s) that best represent(s) their practices and attitudes online. The selected corpus reflects both the researcher's choice according to the hypothesis and observations, on the one hand, and people's usages on the other. The interview, however, requires a direct interaction between the researcher and the participants. The questions asked have been chosen in order to investigate specific issues related to the main research topic that have been observed by the researcher, seeking primarily clarifications and explanations from the ones concerned by the observed behaviours (either during the online observation phase or during contact with questionnaire respondents). In other words, the purpose behind interviewing Facebook users is to have direct answers of some questions that cannot be answered otherwise.

In spite of the fact that the interview involves less questions and participants than the questionnaire, data obtained are of an indispensable value due to their qualitative nature. The researcher asked open-ended questions and gave the chance to respondents to express themselves freely and describe their own experience online. Furthermore, since interviews were mainly online, via the instant messaging application integrated into Facebook (Messenger), questions were conversational. The use of Messenger in interviews has been so effective due to many reasons. The researcher already knows these participants and knows that they are characterised by the required aspects to be investigated. In addition, because of the anonymous and text-based nature of conversations, respondents were more likely to interact, especially that it is part of their ordinary practices. In other words, unlike face-to-face interviews, participants felt more at ease as they took time to think and answer without being put under pressure. Another important advantage is that conversations are preserved and the researcher does not need to use traditional methods like recording or note taking.

A total of twelve (12) Facebook users have participated in the interview. They have been selected to represent specific categories of the research population that were not represented in the other research tools. It sought primarily to target people who use LA and respondents from

the different Berber groups in Algeria. Direct interaction with these categories provide more authentic and valid explanations to the phenomena under investigation. LA for instant was largely covered in the questionnaire and screen data, yet the explanation provided are not sufficient. The Berber responses, however, are missing in both tools; in the questionnaire only Chaouia and Kabyles are represented, while Berber dialects are completely absent in content analysis due to the researcher's incompetence in the language. For that reason, I intended to look for Berbers from the different groups: Chaouia, Kabyles, Mozabits, Zenata, and Touareg⁽⁸⁾. After a detailed description of data collection techniques and procedures, it is important at this level to consider the methods adopted to analyse the data obtained.

3.7. Methods of Data Analysis

Choice of the appropriate methods of data analysis depend largely on the kind of data collected. As has been explained since the beginning of the chapter, this research is empirical in nature. That is, it is a data-based research, as it relies primarily on a corpus gathered from the Algerian Facebook usages. Besides, the approach of the study, CMDA, also requires such kind of data instead of relying only on users' personal reports of their language use online. In this respect, Herring (2004: n.p.) believes that:

The basic methodological orientation of CMDA is language-focused content analysis. This may be purely qualitative – observations of discourse phenomena in a sample of text may be made, illustrated, and discussed – or quantitative – phenomena may be coded and counted, and summaries of their relative frequencies produced.

In other words, CMDA requires content-based researches, which can be qualitative or quantitative. As far as this research is concerned, content chosen from the research site will be analysed qualitatively. This will also be reinforced by qualitative data obtained from online ethnographic participant observations as well as interviews.

The qualitative content (screen data) collected from Facebook is also supplied by quantitative data obtained from the questionnaire. In fact, the combination between the two data sources (screen data as well as user-based data) is crucial for the attainment of the research objectives. The former enables a direct access to the linguistic practices of the Algerians on Facebook and the way language is actually used without intervention of the researcher. The latter gives insights into users' perspectives and reports about their linguistic behaviours online,

in addition to the important social information gathered about the research participants and how do these characteristics influence language use.

Hence, a mixed-method approach is the basic research approach adopted because it is more appropriate to analyse these different kinds of data. Data gathered from the questionnaire will be analysed quantitatively then results will be explained and interpreted qualitatively. Findings of the online observation and semi-structured interviews will be analysed qualitatively. As for the analysis of screen data collected from Facebook, a qualitative content analysis is adopted, relying on multimodal discourse analysis paradigm for the analysis of some multimodal texts selected.

3.7.1. Mixed-Method Approach

Since the research involves both qualitative and quantitative data, adopting a mixed-method approach of analysis is a prerequisite for a better understanding of phenomena. That is, a mixed-method research employs a combination of elements from both qualitative and quantitative approaches for the sake of breadth and in-depth analysis. Creswell (2009) believes that this approach has gained popularity in social and human sciences because of four main reasons. First, it utilises the strengths of both qualitative and quantitative research. Second, it is capable of tackling complex problems that cannot be tackled by either qualitative or quantitative approaches independently. Third, it proved to be useful especially in the light of interdisciplinary research. Last but not least, more insights to research are to be covered in this approach which is not likely to be the case if either of the abovementioned approaches is tackled by itself; i.e. an expanded understanding would be obtained if both are combined together in the same research.

As far as the research beforehand is concerned, triangulating different qualitative and quantitative data sources required the adoption of a mixed-method approach for the analysis of results. Data obtained from online observation as well as the interview have been qualitatively analysed, relying mainly on synthesising and interpreting results in relation to the researcher's own experience and knowledge attained after being an active Facebook user since 2011, in addition to the relevant literature, which is very rich because the digital world has boomed scientific curiosity and interest. The questionnaire, however, is the source of quantitative data, which are primarily "*recorded in numerical form*" (Numan, 1997: 231). Hence, its results were analysed quantitatively by using a computer statistical program SPSS version 19.0. Quantitative

data have been then supplied by qualitative interpretations. As for the analysis of the screen data collected from Facebook, a qualitative content analysis is adopted.

3.7.2. Qualitative Content Analysis

Qualitative content analysis has been defined as *“an approach of empirical, methodological controlled analysis of texts within their contexts of communication, following content analytic rules and step by step models, without rash quantification”* (Mayring, 2000: 2). That is, this analytical approach goes beyond merely counting words or other specific linguistic items within texts to examine the phenomena under investigation; however, *“it allows researchers to understand social reality in a subjective but scientific manner”* (Zhang & Wildemuth, n.d.: 1). That is, emphasis in such an approach is placed on qualitative data as they occur in their social context rather than numerical data.

For analysing digital content, Herring (2004) believes that CMDA research can benefit from the already existing discourse analysis paradigms (text analysis, conversation analysis, pragmatics, interactional sociolinguistics, and critical discourse analysis). These methodological tools are commonly invoked in CMDA research to study the different domains of language (structure, meaning, interaction, social behaviour, and participation) including the sub-sets of linguistic phenomena (ibid). It should be noted, however, that the new digital research settings are characterised by their own specific features and the traditional notions like text, context, and community, etc. are no longer the same. Androutsopoulos & BeiBwenger (2008), in this respect, believe that adapting or reconceptualising existing concepts and methods is necessary for computer-mediated discourse (CMD) studies as these methods are to be applied to new research settings. Yet, while several methods have been successfully adapted to study digital discourse, transferability of paradigms developed for ‘traditional’ means of communication to study the digital environments of communication is not always possible (ibid).

Actually, most early research about language use in the new media of communication treated CMC as a text or as a language, without considering other important elements in digital communication. This has reduced, accordingly, our understanding of digital discourse and failed to take into account how semiotic resources alongside the digital affordances are employed for meaning construction and interpretation. In addition, focusing only on structural features of online texts without considering specific social contexts of use does not provide accurate understanding of digital discourse. In this respect, Barton & Lee (2013: 165) assume:

“certainly, linguistic descriptions alone cannot deal with these issues. It also follows that starting the research with just observing the words in texts on particular platforms is not enough to inform an understanding of what writing online means in people’s lives”. In digital environments, language is crucial as it substitutes most components of communication since this discourse takes place between members who are not physically present together. Hence, viewing digital language as a text cannot explain the interplay between language, technology, and its sociocultural context.

Therefore, this research focuses on text-making practices, *“the ways in which people choose and transform resources for representing meanings in the form of texts for different purposes”* (Lee, 2007: 289 quoted in Barton & Lee, 2013: 166). Such a perspective does not only require *“analysing structural features of language, but also observing particular ways of creating and using texts, moving towards investigating the how and the why of text making... In short, the issue of text-making practices is to study texts in terms of what people do with their texts”* (ibid: 166). Thus, in analysing digital data taken from Algerian Facebook usages, the researcher considers all relevant modes of discourse and adopts a multimodal discourse method for the analysis of the multimodal texts selected, as the different communication elements will be qualitatively analysed in their socio-cultural contexts.

3.7.3. Multimodal Discourse Analysis

A wide range of academic and practical disciplines started to take into account the different elements of discourse instead of considering only the linguistic features. For linguists in particular, the importance of semiotic resources other than language, such as body language, dress, image-text relationship, page layout, cinematographic and sound design, etc. in different kinds of discourse constitute crucial parts of their analysis (O’Halloran & Smith, n.d.). Thus, this paradigm includes *“the analysis of communication in all its forms, but is particularly concerned with texts which contain the interaction and integration of two or more semiotic resources – or ‘modes’ of communication – in order to achieve the communicative functions of the text”* (ibid: 2). So, it considers all the modes that contribute to the process of meaning-making alongside language. Such resources may include aspects of speech, body language, etc.

Multimodal discourse elements in the digital world are becoming even more complex and challenging for researchers due to the multiple means of communication possibilities, the digital nature of communication, the various affordances, modes, and modalities provided online, the different media used, the sub-technologies involved, synchronicity of the medium, in addition

to others. That is to say, understanding the digital discourse requires taking into account, on the one hand, the new settings and characteristics of language use and how sociolinguistic features are represented in the light of the physical absence of discourse participants, on the other.

Herring & Anroutsopoulos (2015: 141) believe that “*CMD is considered to be multimodal when its production and reception involve channels of communication other than, or in addition to, plain text*”. Multimodality online includes a range of different resources such as emoticons, emojis, stickers, and animated gifs (short video clips that loop endlessly). It can also include the special use of symbols, colours, characters, scripts, letters, and inserted images. Similarly, Martínez Lirola (2010: 82 quoted in Martínez Lirola & Ibáñez Castejón, 2014: 91) says that:

A multimodal text is one in which we find different elements, one that uses different modes of communication: the linguistic (the language) and the visual (photographs, diagrams, etc. [...]). All the elements that create a multimodal text have a communicative function. In other words, each linguistic and visual choice has a purpose, a specific function in discourse. For this reason, it is necessary to understand how to combine different visual and linguistic resources to express meaning.

So, digital discourse is a unity that combines different resources, in addition to language, used by people for the sake of communication. Multimodal discourse analysis, then, analyses the different modes and how they are combined together for meaning construction as well as perception. According to Jones (n.d.: 36), the aim behind this approach “*is not to study some special kind of discourse – ‘multimodal discourse’ – but rather to understand how all discourse involves the interaction of multiple modes*”. In other words, the role of the analyst is to clarify the functions of each mode and how they are combined together to make a sense.

Interestingly, systematic functional grammar, developed by Halliday, is considered as the most influential approach to the multimodal analysis of texts (like magazines, web pages, films, etc.). Grammar according to him is a system of ‘resources’ that people draw on to make meaning. This framework of multimodal discourse analysis has been applied to other modes such as music, images, and architecture, as different modes of communication are organised in a complex manner alongside linguistic features in discourse. In other words, even such modes have a kind of ‘grammar’ and they have specific functions within texts (ibid). The framework of analysis proposed by Halliday is based on the assumption that language has three basic functions: to represent our experience of the world (ideational function); to give an idea about

the kind of relationship between us and the people with whom we are communicating (interpersonal function); and it is used to organise ideas (textual function) (ibid).

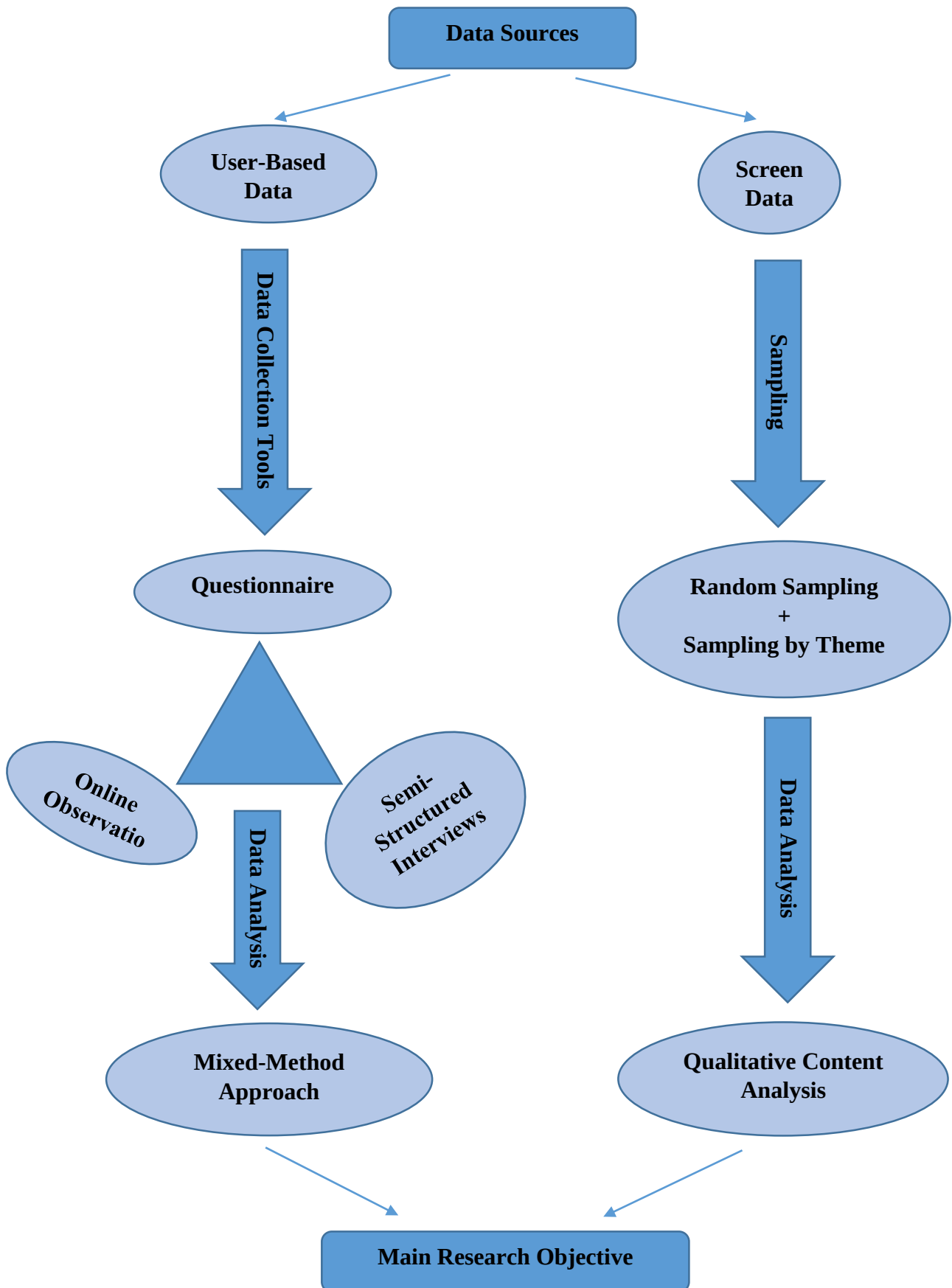
Kress and van Leeuwen's (1996) book *Reading Images: The Grammar of Visual Design* is considered as a typical example of the adoption of Halliday's Framework, which they believe to be a starting point for analysing all modes. According to them, images also fulfil these three functions, even though they manifest differences from language, because they are used as visual strategies for communicating meaning. Moreover, they emphasise on three main aspects when analysing multimodal texts: first, the place in which the different elements of information appear; second, the elements used in the image to attract the readers' attention; third, the way elements are connected or separated on the page.

Actually, different visual elements are used in Facebook, especially that they are used as a strategy for communication in the light of the absence of auditory resources. The latter is very limited in the Algerian context due to the nature of Facebook communication on the one hand and to cultural reasons on the other. Images, in addition to several other multimodal elements, are widely used alongside language. For that reason, adapting the aforementioned models to reach the research objectives is required due to the multimodal nature of Facebook communication. In other words, understanding the Algerian sociolinguistic situation on Facebook requires taking into account all components of discourse. Accordingly, for the purpose of this research, the different elements used for communication on Facebook will be analysed: how symbols, scripts, letters, languages, colours, images, etc. are used alongside the different technological affordances such as copy-paste, and online translation, for instance, to build social worlds online. Hence, according to the requirements of the research objectives, discourse is defined as "*the ways people build and manage their social world using various semiotic systems*" (Jones, et al., 2015: n.p.).

The motives behind adopting multimodal discourse analysis in analysing the corpus collected is due to the fact that any visitor to the 'Blue World' observes how creative digital communication is; as a result of adapting the digital resources for self-representation, construction and interpretation of meaning, in addition to establishing and maintaining relationships, etc. In other words, different social practices are mediated through multimodal discourse, as it is a tool for performing social practices (ibid). This will lead us towards answering the main research question which is based on exploring empirically whether the Algerian sociolinguistic situation with its rich and complex profile is represented faithfully and vigorously represented within an advanced technological framework of communication.

Analysing the corpus taken from Facebook enables us to figure out the characteristics of language use online, see whether traditional usages are represented in the digital environments or not; whether the electronic, text-based, anonymous, synchronous/asynchronous nature of communication, in addition to so many other features of Facebook are ruining conventional characteristics of language or rather they trigger language development as they enhance human creativity in terms of linguistic practices online. This also leads us to answer some questions that have been raised with the proliferation of technological representation of minority groups, empowerment of women, codification of spoken-only varieties, the ‘war between languages’, the representation of Berber varieties, diagraphia, language and script choice, gender differences, multilingualism, among others. The following is a diagram that represents the different data sources, data collection tools, sampling techniques involved in screen data, and methods of data analysis.

3.8. Diagram of Data Collection and Analysis



3.9. Conclusion

This chapter constitutes an important part of the research since it represents its methodological framework. Details have been provided about CMDA, the approach that is prevalent in language-focused studies about CMC studies. This approach is arranged under the field of ‘Internet Linguistics’, a new discipline that has emerged and developed as a result of the wide adoption of Internet in everyday practices of its users. This research is sociolinguistic in nature and it considers both of its micro as well as macro perspectives, as it deals with linguistic phenomena (at the micro-sociolinguistic level) and seeks socio-cultural explanations (macro-sociolinguistic level) to these phenomena. For such research aims, an empirical design has been adopted because it is a data-based research.

The empirical study before hands relies on two data sources: user-based and screen data. The former has been gathered via ethnographic techniques, namely online observation, semi-structured interviews, and a questionnaire. The latter refers to the corpus collected from the Algerian Facebook linguistic practices, in which multimodal texts have been collected randomly at first and then selected and classified by theme. The two types of data are complementary and they both serve the research aims when combined together. The kind of data gathered determine the way it will be analysed.

As far as data analysis is concerned, a mixed-method approach is appropriate for this empirical research. The questionnaire is the source of quantitative data and its results were analysed quantitatively by using a computer statistical program SPSS version 19.0. Findings of the online observation and semi-structured interviews have been qualitatively analysed. Qualitative analysis was also adopted for the content (screen data) collected from Facebook, with adopting multimodal discourse paradigm. The following chapter will deal with the analysis and discussion of findings.

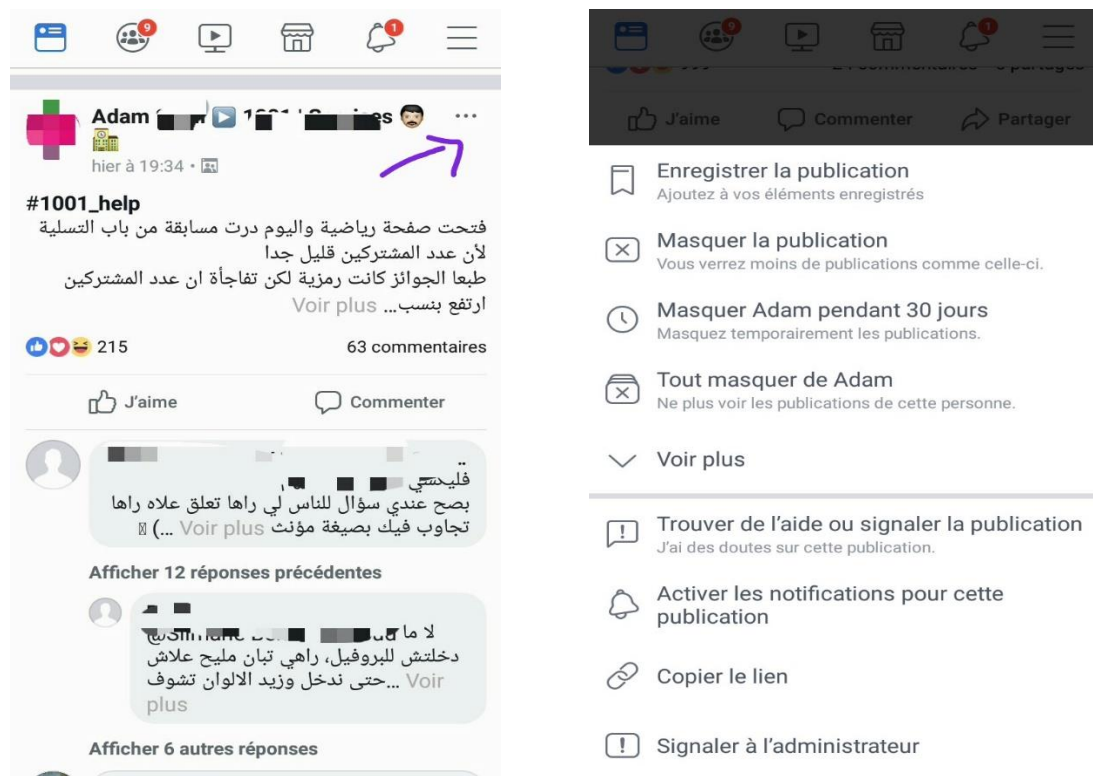
Notes of Chapter Three

1- It is important to note that the number of Facebook users is mainly the number of accounts or subscribed members rather the actual users because many people have more than one account in the site due to its free access.

2- This has been possible mainly after providing the 3G and later the 4G in public market, which made it possible for people to be connected to the Internet via mobile phones instead of fixed computers because many families still do not have computers at home. Besides, mobile phones are personal, unlike computers that can be shared by family members. In other words, this gave more freedom to have private accounts. Accordingly, more and more Algerians from different social backgrounds are represented online; including children, adolescents, women, semi-techno literates, old people, people with little education, and people who live in less privileged regions.

3- Interestingly, whether CMC is viewed as ‘text’ or ‘place’ determines not only the kind of data collected but it also entails preference of specific research questions and methods of analysis. While viewing CMC as text implies screen data collection and focuses mainly on specific linguistic categories, CMC as place prefers ethnographic techniques like observation and would examine how participants engage in social activities in particular social contexts. Accordingly, in relation to the research aims which perceives these media as digital environments of communication, CMC is considered as a place where texts are used by online members. Therefore, the study relies on both types of data, screen as well as user-based data.

4- When Facebook users log in and check their accounts, they come across unlimited numbers of status updates of other Facebook participants in their contact list, pages, and groups. The site makes it possible for its members to have a certain comment on what they wish or wish not to see and what possible digital practices they can do in the different cases. They can save posts, mask them, copy them, etc. All what they have to do is to click on the three buttons on the top-right side of the post (pointed to, on the picture below, by a purple arrow drawn by the researcher via a mobile facility which enables people to modify images) and choose the digital practice they want. Throughout the research, I both saved and copy-pasted content that is relevant to the research requirements and aims. See illustrating screenshot taken from Facebook, below.



5- The term ‘traditional’ is used interchangeably with the term ‘offline’ in this thesis to refer to real-life situations that differ from online contexts. It is, in this respect, not employed to mean something ancient or outdated but it is used in contrast to the digital world.

6- It is crucial to acknowledge the role of the research participants (whom I didn’t even know either in person nor on Facebook) who were willing to help and transmitted it to others. There were some respondents who have even printed the questionnaire and distributed it to people, then they took pictures of the questionnaire after answering it and sent it to my Facebook inbox.

7- The constitutional amendment signed by the former Deputy-President of Algeria Abd El Kader Ben Salah in November 2019 elevated 10 administrative districts in the southern regions of the country to be novice Willayas added to the previous 48 ones (see appendix 28). They will become independent after four years since their establishment.

8- Unfortunately, one Berber group (Tachnaouit who live around Chenoua mountain in Tipaza region in north Algeria, see appendix 29) is still not represent in the research.

CHAPTER FOUR:

THE ALGERIAN SOCIOLINGUISTIC SITUATION ON FACEBOOK – RESEARCH FINDINGS AND DISCUSSIONS

Chapter Four: The Algerian Sociolinguistic Situation on Facebook – Research Findings and Discussions

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4.1. Introduction

The previous chapters dealt with both of the theoretical as well as the methodological frameworks of the research, without which this final section would have never been reached. The main objective of this part is to present and discuss the research findings obtained from the different data sources. First, the screen data collected throughout the observation phase will be analysed: forty-nine illustrating examples have been selected randomly and classified by theme, including multimodal texts, which will be analysed relying on Kress and van Leeuwen's (1996) multimodal discourse analysis paradigm that has mainly been adapted from Halliday's systematic functional linguistics. Second, data gathered via the ethnographic technics will be discussed and interpreted, beginning with findings of the questionnaire then semi-structured interviews. Synthesis of all research findings coupled with the researcher's background knowledge obtained from the relevant literature as well as her own experience go hand in hand within the discussion of results.

4.2. Online Observation and Analysis of Screen Data

Facebook, in addition to many other digital environments of communication, attracted huge number of participants as well as critics especially as far as its impact on linguistic, cultural, and social aspects of people is concerned. This has been one of the factors that motivated interest and curiosity to tackle such an issue and to shed light particularly on the Algerian sociolinguistic situation on Facebook, one of the most popular digital platforms in the country. My position in this research, accordingly, is to describe and analyse sociolinguistic phenomena rather than to judge people's linguistic behaviours.

These communication technologies have been socialised and integrated into people's daily lives since subscribed members are transmitting their real-life experiences into the virtual world and they are influenced in turn by what is going on online. Hence, new kinds of social behaviours have emerged, which imply the 'digitalisation' of practices as well as digital literacy. This is so possible in a social networking site like Facebook, where social practices such as shopping, traveling, studying, cooking, hairdressing, sports, and 'everything else' are becoming digital especially with the growth of the Algerian population on the site, that is constantly attracting more and more participation from all strings of society regardless of their age, educational level, gender, region, ethnicity, beliefs, ideologies, etc. Equally important is the amount of time spent on the digital environment by people. In other words, it is crucial to investigate the Algerian sociolinguistic situation in its new and digital context, especially that

language plays a crucial role in communication that takes place most of the time between anonymous and invisible members.

Interestingly, before tackling the major sociolinguistic phenomena exhibited on Algerian Facebook practices, it is of a paramount importance to shed light on some of the characteristics of the digital context that determine and shape language use. For instance, digital communication is mediated by a device, which facilitates communication but at the same time has its own constraints. That is, people are determined by the limited number of characters, the small size of the screen, and the nature of writing spaces provided, among many other electronic features. In spite of the regular developments of communication technologies, many languages are not yet represented. In addition, communication cannot always be encoded via characters, sometimes a gaze or a smile say a lot, and in such communication at distance non-verbal cues, at least in their traditional/offline sense, do not work especially in a situation where the use of a webcam for communication is not really welcomed. Besides, the fact that communication takes place most of the time between anonymous and invisible members plays a big role in the way language is used online. Moreover, the immediate and interactive nature of Facebook writing spaces that are either public, semi-public, or private also lead to specific linguistic behaviours. As a result, people developed several strategies and ways to cope with the new digital realities.

Indeed, language use online became a practice in itself since people rely on it to build their own world in its virtual version. They started to make use of linguistic features as a resource to cope with the new digital contexts in order to meet their communication needs. Innovative and exaggerated ways of using letters, punctuation marks, capitalisation, and symbols etc. emerged. Even scripts, languages, images, and colours are used in new ways that never existed before and employed within discourse to serve new functions. Recently, with the regular technological developments, many more strategies of communication evolved. The digital, linguistic, and semiotic affordances provided online are used in creative manners to communicate, exchange, and transmit content. In other words, any visitor to “The Blue World” must have noticed how multimodal and multilingual communication is.

Accordingly, the subsequent sections constitute a selection of some of the most frequently encountered linguistic practices on Facebook with illustrations, explanation, analysis, and interpretation. These practices are: 1) shortened and non-standard forms of writing, 2) scriptural practices, 3) new multilingual encounters, 4) paralinguistic displays, and 5) multimodal discourse.

4.2.1. Shortened and Non-Standard Forms of Writing

The first thing that can be noticed on Facebook is that short forms of writing are dominant. This has been first motivated by the electronic context of language use, i.e. the size provided within the writing spaces, the immediate and the interactive nature of communication. People try to write short messages in order to be as rapid as possible, especially in private/instant messaging (via Messenger). Yet, this form of communication has been maintained and spread to the other Facebook writing spaces (status updates and comments). This can be due to the fact that the audience (people who may read and interact with comments and status updates) often prefer to read short messages because they have got acquainted with reading short texts.

In addition, since concise and precise messages are preferred, they are more likely to be read and attract more interaction, which is considered as one of the most important features of social networking sites in general. People may react either through commenting / answering back the message or simply clicking the “Like” bottom; multiple choices are provided for users, as indicated in the following example:

Example 1: Forms of Interaction on Facebook Status Updates



*These are two screen shots of a status update taken from a “Facebook Page”. Members of the page can press on the “like” bottom to choose among the six reaction possibilities (shown on the right screenshot), comment, or share the post.

In other words, these features (the electronic context of communication, people’s preferences of reading short texts, and people’s interactions to short texts) led to the dominance of shortened forms of writings in addition to the emergence of many new strategies of communication to cope with the digital environments of communication.

Among the most widely noticed characteristics of language use in such a situation is the use of abbreviations, simple grammatical constructions, and scarifying many writing conventions like punctuation marks, etc. Thurlow and Brown (2005) in addition to Farina and Lyddy (2011) observed many types of non-standard typographic usages that are widely

encountered online (see item 2.7.2.1). The most widely used forms by the Algerians on Facebook are:

4.2.1.1. Contractions

Contractions (omitting some letters within words) are noticed in texts written in Latinised Arabic or Latin-scripted languages such as French and English, like in the following examples:

Example 2: Contraction in the French Language



Translation: *we always say fine in order to avoid the why*

The sentence is supposed to be: **On dit toujours الحمد لله pour éviter les pourquoi**. All vowels have been omitted from the words “toujours” (tjr) and “pour” (pr). The abbreviations “hmd” and “pk” are widely used by people instead of “hamdolah”, the Latinised version of “الحمد لله”, and “pourquoi”, respectively. It should be noted that these non-standard spellings exhibit idiosyncratic usages. In others words, in spite of their spread, considerable differences in typing them can be encountered. For instance, in the following screenshot, the Latinised form of “الحمد لله” is written “hamdolah” not “hmd”.

Example 3: Contraction in the French Language



Translation: *Since I survived from death; hamdolah! Allah has given me a new chance to be born again and revive.*

The French subordinate conjunction “que”, the words “nouvel”, “pour”, and “nouveaux” have been shortened to be “q”, “nvl”, “pr”, and “nv” respectively. In addition, apostrophes have been omitted from “j’ ai survécu” and “m’a donné”. Contraction is also found in Latin-scripted writings of Arabic.

4.2.1.3. Acronyms and Initialisms

As has been explained before, people online, prefer to use shortened words and expressions to be as rapid as possible in typing the message, to attract more readers and interactions, and to adapt to the electronic context of communication. Acronyms and initialisms are used a lot by people because they help them save time and efforts. In the example above (see example 5), “mdr” is used as an initialism of “mort de rire” as an equivalent to the English expression “laughing out loud”, see the following example:

Example 6: Initialism in English



Translation: *Same observations 'Laughing out loud'*

These initialisms, “mdr” and “lol”, emerged and spread in the new media of communication and are used all over the world. Many other initialisms are used and can be understood from the context like in the example bellow:

Example 7: Initialism in French



Translation: *He died again, I don't know many souls he still have*

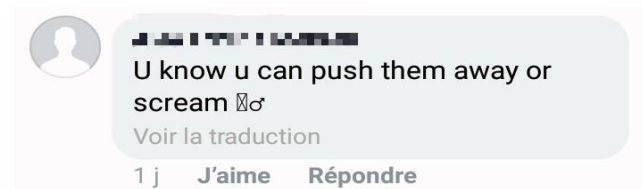
The comment is written in LA and the initialism “jcp” of the French expression “je ne sais pas” is inserted within the sentence, as a form of code-switching (see item i in 4.2.2.2. below). It should be noted also that there are two forms of shortening in the comment. In addition to initialism, the letter “c” at the middle of “jcp” is considered as a letter homophone.

4.2.1.4. Letter/Number Homophones

Short forms of writings are not only omitting letters within words or clippings, sometime a whole word (or part of it) is reduced to be a letter or a number due to the similarities between the pronunciation of letter/number and the word/part of the word. Like in the example above: the letter “c” is a phonetic reduction of the verb “sais” (savoir/to know) and they are both

pronounced in the same way /si/. Therefore, people often use the letter “c” instead of the whole word “sais”. This form is also used in English like in the following example:

Example 8: Letter Homophone in English



The personal pronoun “you” is reduced to be a single letter, “u” because they are pronounced in the same way. Numbers are also used to substitute words due to their resemblance in pronunciation, like in the following screenshot:

Example 9: Number Homophone in the French Language



Translation: - *ah ok thank you*

- *Welcome*

The French word “de rien” is reduced to be “dr1”. Number “1” replaces a part of the word because they are pronounced in the same way in French. In addition to number homophone, there is an omission of the letter “e” (contraction) and the space between the two parts of the word. This leads us to talk about another type of shortening.

4.2.1.5. Non-Conventional Spelling

Another form of writing used a lot on Facebook is non-standard spelling of words. Instead of typing them in their conventional ways, people often write them in the way they are pronounced. That is to say, they rely in typing mainly on letter-sound correspondence. See the following example:

Example 10: Non-Conventional Spelling in the English Language



Translation: *because they are older than all kinds of styles*

The conjunction “because” is reduced to be “cuz” depending on its informal pronunciation. So, people often intend to spell words in new and unconventional ways in order to write less. This is one of the factors that led many theorists to assume that language use online is a “written speech” because people spell words in the way they pronounce them (for example Thurlow et al., 2004). Yet, sometimes such kinds of spelling occur because of lack of competence. In this respect, many smartphone companies developed and integrated auto-correctors; while typing, words with the accurate spelling are proposed for the user.

Actually, many consider these writing practices to be a linguistic ruin and they think that the new technologies of communication are influencing negatively ‘proper’ languages and people’s linguistic abilities. It should be noted, however, that these forms of language use are in fact not only the result of communication media but they have been transmitted online because people already have spelling errors and commit grammatical mistakes offline. In addition, the assumption that technology led to linguistic ruin has no scientific basis. Such a conclusion can only be drawn if comparative studies have been done; comparing between language use before and after the use of communication technologies by large samples, and to my knowledge, there is no such a study. In fact, people relied only on observing how participants use language online to judge, while the situation is more complex than that.

Due to the characteristics of the new digital context of language use, many linguistic practices have been innovated in order to meet people’s communicative needs. This actually indicates humans’ ability to be linguistically creative (Crystal, 2001). Because such usages are intensive and global in addition to the continuous amalgamation of people’s offline and virtual lives, immense linguistic changes occurred; for there are mutual transmissions of behaviours (including linguistic behaviours) across the two different contexts. Language change has always been considered to be a natural phenomenon because language does not occur in a vacuum and it is influenced by several external factors to language, such as Internet (the miracle of the twentieth and twenty-first centuries). Yet, it is also necessary to investigate the impact of these linguistic practices on the human brain, especially that some linguists believe that there is a link between language and the brain and that language structures represent/reflect mental structures. In addition to the aforementioned linguistic features of language use on Facebook, many other practices have been observed at the level script choice and performance.

4.2.2. Scriptural Practices

It is easy for anyone who visits Facebook to notice that the complex Algerian sociolinguistic situation, which is rich with its different languages and linguistic varieties, has been transmitted to the digital world or, rather, it is becoming even more complex as a result of the many emergent linguistic behaviours. All varieties used offline are also used alternatively on Facebook, and this what has also been confirmed in the questionnaire results (see item 4.3.4). Actually, what is more striking about this is not the languages used on Facebook but the way they are represented. In addition to the usual scripts used for these languages (the Arabic script used for the Arabic language and Latin script used for English and French), Algerians also reverse the use of the scripts for these languages. In other words, scriptural practices like the use of LA (the use of Latin script to represent Arabic) and Arabised French and English (the use of the Arabic script to represent French and English) are also omnipresent on Facebook. These have also been coupled with other scriptural usages such as different forms of script-switching and script-fusing, bearing in mind that script choice in each case is determined by several factors.

4.2.2.1. Cases of Script-Switching

Before tackling the details of these practices, it is of a paramount importance to report the different cases in which script-switching has been encountered. The two scripts (Arabic and Latin) are used alternatively in Facebook communication by the Algerians ⁽¹⁾. People switch from one script to another in the following six cases:

First, switching between scripts within writing spaces. That is, a person can switch between scripts in the same conversation, sentence, or word. The following example is a screenshot of a status update taken from a Famous Algerian Facebook page in which the admin (the manager of the page) uses both of Latin and Arabic scripts in the same writing space (a status update).

Example 11: Script-Switching of Same Person within the Same Writing Space



Translation: *A trip of a member (of the page) with her husband*
An Algerian woman who lives in Saudi Arabia

In this example, the admin began the sentence in the Arabic language using the Arabic script and then he switched to Latin script to represent the word “d une membre” in French and then switched back to the Arabic language and script. In addition to script-switching, two further sociolinguistic phenomena can be extracted from this example: code-switching and intra-sentential script-switching. These topics will be tackled in details bellow (see items 4.2.3.2. and item i. in 4.2.2.2.).

Second, Script-switching can also occur within the same writing space by different members in comments, for instance, where different members comment on the same status update using different scripts.

Example 12: Script-Switching by Different People within the Same Writing Space



Translation: - *That is right nice said 100% (emoticons)*
- *Yes, that is right nothing deserves*
- *Get rid of what hurts you*

In this example, the three different people are commenting on the same status update. Two of them use Latin script, while the other one uses the Arabic script. Here also there are different sociolinguistic phenomena: multilingualism (the use of French, Standard Arabic, and Algerian Arabic), inter-sentential code-switching (used by the second person who begins by French and then switches to Algerian Arabic with keeping the use of Latin script for both varieties), in addition to the use of letter homophone “c” instead of “c’est” and non-conventional spellings “ci” for “c’est” and “ouii” instead of “oui”.

Third, another case of switching that occurs in the same writing space can be found also when interlocutors use different scripts in the same conversation. That is, one is using a script and another replies in a different script.

Example 13: Script-Switching by Different People in Turn-Taking within the Same Writing Space



Translation: - *By the way, Imene has got pain again*
And she is in the hospital
Have you heard that?
- *Oh, no way*
No
We were planning to visit her tomorrow
All of us
- *She is in the hospital*

The example is taken from Facebook instant messaging (one-to-one private communication via Messenger application). The first person uses the Arabic script, while the second one uses LA in the same conversation.

Fourth, another form of script-switching in different writing spaces and in the same communication by different people can also be encountered when the status update is written in a script, whereas people comment on it using a different script. The following illustration includes two inserted screenshots, the first one is a status update and the second one is one of the comments to this status update.

Example 14: Script-Switching by different People in the Same Communication within Different Writing Spaces



Translation: *Any housekeeping? Any clothes exposed to sunbeam?! (an emoji of sun with a face)*



Translation: *My sister, we always have housekeeping, we got bored (a crying emoji)*

The Status update in this example is written in Algerian Arabic which is represented in LA and it includes intra-sentential code-switching (a French word “ménage” has been inserted

within the statement). However, the comment to this status update has been written in the Arabic language via the use of the Arabic script, and even the French word “ménage” has been Arabised (written in the Arabic script). The latter phenomenon will be tackled in details bellow (see item iv. in 4.2.2.2.). It should be also noted that the use of emojis and Internet memes in addition to the written message in the same text is so significant. This research also sheds light on such multimodal practices (see items 4.2.4.3. and 4.2.4.4. respectively).

Fifth, this case of script-switching occurs between writing spaces (for example, when a Facebook user comments in the Arabic script and switches to Latinised Arabic to communicate with a friend in private messaging). This means that switching between scripts occurs when the writing space has changed.

Example 15: Script-Switching between Writing Spaces by the Same Person



Translation: *Teachers are leaders of peoples*

Whether you like it or not

No nation can succeed when the teacher is humiliated in it



Translation: *Nice, now we make a world tour*

The subject became so serious

The two screen shots belong to the same Facebook user (I kept the profile picture as an evidence for that). The first one is a status update written in Standard Arabic and the script used is Arabic as well. In the second screenshot, however, the girl is using Latin script to represent the statement written in both of Algerian Arabic “ya salam dok ndirou” and French “tour du monde”. So, this implies that she was using the Arabic script for status update and switched to Latin script for the comment.

It should be noted also that the first text is shared and not the user’s own production, yet she was using Arabic anyways because this is only possible thanks to the digital resources provided on the virtual world. Actually, sharing others’ status updates enables Facebook users to experience new forms of multilingual practices; since due to the affordances of the digital contexts, participants do not need to be proficient in a language to use it (Tagg, 2015). This is the case of using Standard Arabic by Algerians, who are said to have passive competence in it, on Facebook. Yet, statistics show that the use of Standard Arabic is dominant in status updates, sharing others’ status updates, posting written pictures, and posting or commenting on religious topics (see item 4.3.4.1.); bearing in mind that all these cases are asynchronous forms of communication on Facebook. That is to say, they do not require spontaneous production of the language and people can edit the text before using it.

Interestingly, the second screenshot includes a statement written by the user as well as an inserted written picture. The picture is of a famous Egyptian comedian, Adel Imam, the statement inserted on it is uttered by him (this can be grasped through the way it is inserted because it is written within a form that is widely used in images when quoting the person, in addition many of Adel Imam’s expressions are learnt by heart and known by many of his fans). The use of Internet memes (pictures that are deployed as templates and that are sometimes injected by catchphrases, see item 2.7.2.4.) alongside written statements is commonplace on Facebook especially in comments, constituting one of the most attractive and interesting strategies of communication in the digital world. Such strategies can serve several systematic functions. In this case, it is used to indicate exaggeration in the status update, sarcasm, and humour. Besides that, it can also be considered as a substitute to non-verbal cues, because the reaction of this Facebook user can be identical to Adel Imam’s facial expression, and his tone of voice, which can be easily imagined and remembered by people who are accustomed to this Arab cultural tradition. Actually, people often insert images of specific persons to transmit a particular impression, idea, or a sound.

Finally, people may also change the script they use according to the addressees. In other words, unlike the previous case in which switching occurs when writing spaces change, script switching here occurs when the interlocutor has changed. For instance, when a Facebook user communicates with two different persons using the Arabic script with one of them and Latin script with the other.

Example 16: Script-Switching between Facebook Users Within the Same Writing Space



Translation: *you want to drive a woman mad: ignore her*

You want to drive a man mad: not possible because they do not have feelings



Translation:

Abbes: *we know these things, we do not need stupid girls like you to tell us, that's why it is easy to manipulate girls*

Rus to Abbes: *you are stupid; your comment reflects your discipline that's all. Anyways, the girl can be your sister or your mother, so it is better if you shut your small mouth*

Amel to Rus: *an emoji of clapping hands*

Amel to Rus and someone else: *you are right both of you.*



Translation:

Amel to Abbas: *We are not in an arena or a battle, we are in a conversation and constructive debate, you are not obliged to use violent words, you are not obliged to take out your sword and expose your muscles to creatures that are less powerful than you in their physical structure, have we said you are stupid????!! We did not humiliate you, so please do not humiliate us; stop being violent...*

Rus to Amel: *What can you do with this kind of idiot people, though the best answer is silence but sometimes we have to belittle our level to answer this kind of creatures.*

Many sociolinguistic phenomena can be obtained from this extract. As far as scriptural practices are concerned, there is script switching between different writing spaces (the post is written in the Arabic language using the Arabic script, while some comments are in Latin script) in addition to script-switching within the same writing space (the first comment, of Abbas, was in Arabic and responses to his comment were written in both Arabic and Latin scripts). What is interesting in this case is that, the third person (Amel) responded to Rus in French using Latin script and switched to the Arabic language and script to respond to Abbas. In other words, in the same writing space, the same person switched between two scripts to answer two different persons who were using two different languages/scripts; i.e. script-switching occurred due to the language used by the addressees.

Script choice in this example has to do mainly with gender differences, stereotypes, and power relationship between males and females in the Algerian society. Actually, Facebook reinforces gender stereotypes since it enables the creation and the transmission of written content that is persistent and loaded with such ideas and that can be open to public access

(Zahali, 2017). This status update, that is stereotyping men of being emotionless, is taken from a famous Facebook page that has more than one million and six thousand followers. Abbes, a male member, in his comment describes women as being stupid and easy to manipulate. Then, Amel responded to him: “*you are not obliged to take out your sword and expose your muscles to creatures that are less powerful than you in their physical structure*”, depicting men to be more powerful than women. Such gender struggle is not uncommon on Facebook because power and dominance relationship between them is transmitted and reinforced on the digital environments of communication.

Interestingly, language as well as script choice also play a great role in this power relationship between genders. Research findings indicate that males and females use language differently, and this can be noticed in the example provided. For instance, males are said to use vernacular forms (Eckert, 1989), their speech is adversarial and competition oriented (Maltz and Borker, 1982 cited in Bell et al., n.d.). They also tend to express logic and rationality more than females do (Gilligan, 1982 cited in bell et al., n.d.). These can be typically applicable to Abbes’s comment, which sounds hostile and rude. Females, on the other hand, ask more questions, use polite expressions, and they tend to use standard forms (Lakoff, 2003; Romain, 2003; Newman et al., 2008). All these linguistic strategies are found in Amel’s comment, as her speech is polite, she is using Standard Arabic written in the Arabic script though the comment of Abbes is a mixture between Algerian Arabic and Standard Arabic, and her comment incorporates also a question and negations.

Recently, researchers started to be more interested in explaining these differences in language use rather than just citing them. Language is said to be shaped by the specialisation of gender roles that are distributed and dictated by social norms. Actually, labour is divided in a way that suits cultural stereotypes; while the adequate role of a man is to take in charge the public marketplace, women’s responsibilities are limited to private spheres (Romain, 2003). Accordingly, they are supposed to behave differently, including their linguistic behaviour. That is to say, language is used differently depending on men’s and women’s place in society in a given time and place (Eckert, 1990). These assumptions about gender differences shape the way women and men use language; women’s speech is expected to be polite whereas men’s should be strong in order to delimit themselves from women.

Hence, being socially deprived from power, women use language as a resource to enhance their social position (Eckert, 1990; Romain, 2003; Lackoff, 2003). For instance, though Rus’ speech in her comment to Abbes (see example 16 above) was not so polite, the fact that she

Example 18: Inter-Sentential Script-Switching



This statement: “do not judge a person from his appearance but from his internal side, I cannot help you more than that”, begins first with the Arabic script representing Standard Arabic then switches to LA representing Algerian Arabic. Here also there is script-switching as well as code-switching, which is labelled as diglossic code-switching (Bagui, 2014).

iii. Script-Fusing

People do not only switch between Arabic and Latin scripts inter- and intra-sententially, but they also employ the two scripts within words (Panovic, 2018). Script fusing is used mainly in comments in Algerian Arabic via the use of the Arabic script. Some people switch within a single word for some European sounds that are not represented in Latinised Arabic such as: /v/ and /g/. The following screenshot is an example of script-fusing.

Example 19: Script-Fusing



The word "النغاف" is an Algerian Arabic word written in the Arabic script. However, the letter <g> is inserted within the word because Standard Arabic does not contain the sound /g/. Actually, script-fusing is not widely used by the Algerians if compared to script-switching. Besides, inserting Arabic letters within words written in LA script has never been observed in the Algerian usages.

iv. Arabised French and English

In addition to the abovementioned usages of the scripts available, another form is also seeping gradually to the Algerian linguistic practices on Facebook. French and English words and expressions are sometimes written in Arabic script, i.e. this can be referred to as “Arabised” French and English, the following example represents this case.

Example 20: Arabised French and English



The words "مم" that represents the French word (*même*) that means in English (*even*) and the word "سنقل" that represents the English word (*single*) have been written in the Arabic script relying on the way they are pronounced. In other words, Arabic letters have been used to write the French and English sounds. These findings do not only point to the steady shift towards the Arabic script instead of a Latinised version of Arabic, but they also reverse the situation since Arabised French and English are challenging LA.

Accordingly, the idea that LA is threatening the Arabic language and culture, as it is often considered as a form of linguistic and cultural imperialism, is questioned and need to be reconsidered with taking into account the new linguistic practices. Actually, such linguistic usages do not signal linguistic ruin, but they rather mirror historical, cultural, and digital realities in addition to the fact that they are used as semiotic resources to represent identity, which is a hybrid between local and global features (Zahali, 2019). This hybridity is unavoidable since it is a natural result of communication in the “global village”. Language researchers are required to describe and explain linguistic phenomena instead of judging them. Hence, it is interesting to know why do Algerians still use LA in spite of the availability of the Arabic script.

So, the use of the Arabic script has spread amongst the Algerian Facebook users and their negative attitudes towards it have changed because it is tied to the cultural identity of many Algerians. This shift can be noticed in the amount of using the Arabic script on Facebook and has also been confirmed in the questionnaire results (see item 4.3.2.1.). In addition, many Algerians ask others in comments to use the Arabic script instead of LA, either because they

find difficulties understanding it or they are uninterested in reading it. However, in spite of the steady shift towards using the Arabic script, LA is still maintained. This is due to the fact that they are both important for the representation of the Algerians' cultural identity, which can be considered as a hybrid between local and global features.

In addition, the emergent scriptural practices, mentioned above, point to linguistic creativity since people find refuge in revolutionary linguistic behaviours, which can be considered as a “third space”, where two systems of identity representation converge. This convergence does not belong to either extreme but it is rather, composed of an artistic combination between different elements in a way that has never existed before and that can only be understood in its own context. Therefore, while the use of the Arabic script represents the Arabo-Islamic belonging, LA represents crucial historical and cultural aspects of the Algerians. LA bears ties to an important period that changed the course of the Algerian history (the period of the French colonisation to Algeria: 1830-1962). It represents the openness towards the western world, education, gender, age, and ethnic differences. For these reasons, among others, LA is not likely to disappear from the Algerian linguistic manifestations in the near future.

Analysing script usages on Facebook indicate that there are no limits for human's adaptation of linguistic resources to meet their communication needs (linguistic and cultural), as people play with the scriptural possibilities to represent themselves. This, actually, does not only stimulate curiosity of linguistics researchers but it also calls for refining the established linguistic standards, which are becoming archaic, hinder people's communication abilities, and fail to cover the digital linguistic practices. It is high time to open the gates for further research to investigate such phenomena from both micro- as well as macro-approaches to sociolinguistics. In addition to scriptural practices, the new multilingual encounters on Facebook are also so innovative and interesting that they require to be considered scientifically.

4.2.3. New Multilingual Encounters

As has been mentioned before, all language varieties used by the Algerians offline have been transmitted to the online world with varying degrees, usages, and purposes. These varieties are in fact combined together with many other modes of communication; as people draw on the semiotic resources, the digital affordances, and the interaction possibilities provided by the web to construct online discourse. Accordingly, in addition to the aforementioned innovative

representations of languages, such as the use of LA and Arabised French and English, many other new multilingual practices can be encountered on Facebook. So, this section sheds light on neo-multilingual phenomena that have roots in traditional usages but they are acquiring new features and functions within digital discourse. This research focuses primarily on: 1) language choice, 2) code-switching, 3) usages of SA, and 4) adoption and localisation of English.

4.2.3.1. Language Choice

To begin with, it is important to shed light on how can people choose a variety in the different communication contexts on Facebook. Even online, the way language is used is determined by several interrelated factors. Barton and Lee (2013: 55-56) assume in this respect that: *“online users know very well how to deploy their linguistic resources in different contexts for different purposes and to different people”*. Indeed, Algerians on Facebook use language differently, and their choice is dictated by different factors. This can be comparable to offline practices since an effective communication depends mainly on how much people know about the context. Yet, people online require new kinds of competences that suit the different digital environments of communication.

This includes knowledge about the medium used and the adequate means to be used for interaction. For instance, language use and choice are determined by the nature of writing spaces, the interlocutors, the topic of communication, and the user’s profile (age, gender, educational level, etc). In other words, Facebook users employ varieties differently in different contexts on Facebook due to a number of ecological factors, which are primarily: *“who the user is, who the intended viewer is, what is posted, and how the medium is used”* (ibid: 56). Actually, Algerians do not use Standard Arabic, Algerian Arabic, Berber, French, and English in the same way, with the same people, in the same writing spaces, and in the same topics discussed. This has been one of the major observations on which the questionnaire has been constructed, since respondents were asked in question (7) to choose the variety(ies) they often use in the different occasions proposed (see appendix 1) and questionnaire results confirm this claim. Besides, Algerians do not only use these varieties in different Facebook contexts but they also switch between them in the same conversation or statement.

4.2.3.2. Code-Switching

These language varieties are also used within the same writing spaces and even within the same statement of the same person as a result of digital facilities as well as the informal nature

of communication on Facebook in most cases. Indeed, people also switch between codes on the site inter-, intra-, and extra-sententially (Poplack, 1980). In addition, switching occurs in turn taking in private conversations, status updates, and in comments. These practices are so similar to switching in face-to-face communication. Yet, people do not only switch by using their own language productions; i.e. they can simply insert a written image or a video in addition to or instead of statements of their production, like in the following example.

Example 21: New Form of Code-Switching



Translation: *March, 30th, bear it in mind (XD is an Emoticon for laughter)*

- *I was born on March, 13th, my mother has accordingly given me 13 Mars (a chocolate), I adore. A crying emoji and a heart.*

This is a screenshot of a status update that is made up of combination between a statement typed by the Facebook user and an inserted screenshot of another Facebook user's status update. The first statement is written in both of French and Algerian Arabic, which are both represented in Latin script. This is an intra-sentential code-switching without script-switching; the two codes used (French and Algerian Arabic) are typed in one script (Latin). The written picture uploaded bellow includes a statement written in French and an image of 'Mars' chocolate that the person has received as a gift in her birthday. So, this form can also be considered as a form of inter-sentential code-switching, since this person was using Algerian Arabic and French and then switched to French.

This can be considered as one of the new multilingual practices encountered on Facebook, which are possible as a result of the digital affordances. In other words, people can use (share,

insert, or copy-paste) ready-made statements, words, videos, etc. produced in different languages in their comments, status updates, or private messaging. This form is widely used by people on Facebook for many purposes. For instance, many rely on this way due to their lack of competence in languages. That is to say, people do not always need to have full command of a language to use it online (Barton and Lee, 2013). This has not only fostered the use of written code-switching with many new forms, but it has also enabled the use of some varieties which have had very restricted usages offline, such as Standard Arabic and English.

4.2.3.3. Usages of Standard Arabic

Actually, such a conclusion has been drawn from observing language use on Facebook by people who have low educational level. For example, one of the cases observed (a male user of Facebook who is 33 years old and who has a middle-school educational level) uses only Algerian Arabic and SA in his status updates. He updated his status 28 times in the period between January, 2019 to January, 2020. His status updates can be arranged as follows:

- 28.57% are inserted images written in Standard Arabic;
- 25% are statements written in Algerian Arabic alongside an inserted image not written;
- 25% are shared videos in Standard Arabic with introductory statements also written in Standard Arabic;
- 7.14% are inserted images written in Standard Arabic and a statement written in Standard Arabic;
- 3.57% an inserted image written in Standard Arabic and a statement written in both of Algerian Arabic and Standard Arabic;
- 3.57% inserted images not written and a statement written in Standard Arabic;
- 3.57% inserted image not written and a statement written in both of Standard Arabic and Algerian Arabic, and
- 3.57% an image not written with nothing written by this Facebook user.

That is to say, most of his status updates (53.57%) are ready-made and are only in SA; including pictures written in SA (28.57%) or videos in SA (25%). Standard Arabic has been produced alone by this user twice (7.14%) and mixed with Algerian Arabic twice (7.14%). In other words, the use of SA is dominant, though he is not really competent in it; due to the mistakes he committed in all the statements he produced in addition to spelling errors of SA words inserted within Algerian Arabic (this gives insights into contemporary levels of Arabic

according to Abd El Karim (n.d.) classification – see below). Only two cases have been encountered without any grammatical mistakes: it is clear that one of them has been copied and pasted and the other one is a Quranic verse that he must be learning by heart. The following screenshot is an example of this user's linguistic practices that represent some phenomena of the Algerian language use on Facebook.

Example 22: Use of Standard Arabic with Grammar and Spelling Errors



Translation: - *Live with your mothers because losing the mother is unbearable*

- *The mother; is like life cannot repeat twice ..*

Pray for your mother here

The statement written in SA by this Facebook user contains five mistakes. It should be: عيشوا مع أمكم لأن فراق الأم لا يطاق Removing the *Hamza* (ء) or word endings are often encountered on Facebook and these practices can be used by people with different educational levels; i.e. making such mistakes does not necessarily indicate lack of competence in SA because people sometimes use them though they already know the right spelling of words. Such words are typed with mistakes mainly in order to save time. However, writing the word يوطاق instead of بطاق is a spelling mistake that is committed due to the user's lack of competence in SA.

Such observations open the gate for further discussions related to the use of SA on the digital environments of communication. First, SA is widely used on Facebook and it is no longer restricted to the traditionally-established official domains such as administrations, education, religion, etc. In other words, SA is acquiring new domains of use online and it is

also used in informal situations (this observation has been confirmed in the questionnaire findings that show respondents' choice of SA in many Facebook situations more than the other varieties, see item 4.3.4.1.), unlike offline in which using this variety in informal situations would be weird. Hence, the assumption that the new media of communication foster the use of Colloquial Arabic at the expense of SA is proved to be wrong.

Second, the alternative use of SA and Algerian Arabic point to the diglossic relationship between them; as the former is dominant in the most asynchronous usages (sharing other's posts and inserting ready-made written pictures), while the latter is more used in the participant's own spontaneous linguistic productions. This is identical to offline practices since most Algerians have little competence in SA and they often find difficulties to hold a spontaneous spoken conversation on it unless they read from a paper or learn a speech by heart. Besides that, according to Abd El Karim (n.d.), the different levels of Arabic (on Facebook as well as WhatsApp) are determined by the educational and intellectual levels of people or by the nature of topics discussed. That is to say, the kind of grammar mistakes committed indicate the educational level of the user and the level of Arabic s/he is using, accordingly. Thus, such linguistic behaviours, which have long been considered as one of the negative consequences of digital communication, are in fact the result of the users' level in the language both online as well as offline.

Finally, diglossic code-switching (see example 23 bellow), the term used by Bagui (2014) to refer to switching between Algerian Arabic and SA, led to the spread of an elevated form of Arabic which is neither completely standard nor completely colloquial. This form, often referred to as Educated Spoken Arabic or Middle Arabic, which is widely used offline in spoken conversations as a result of education. It has also been transmitted to the digital environments of communication, yet it is neither spoken nor used exclusively by educated people. Hence, the digital affordances on Facebook make it possible for people to use SA though they are not fully competent in it, however their level can seep to their usages in case they produce statements themselves, leading accordingly to representations of contemporary levels of Arabic that are arranged in a continuum from the most formal to the most informal linguistic manifestations.

Example 22: Diglossic Code-Switching



Translation: - *May Allah be merciful on all dead people*

- *The feast is approaching and we have beloved people under the ground*

The first statement, produced by the user, is written in both of Algerian Arabic “ربي يرحم” and SA “جميع الموتى”, which is supposed to be written “جميع الموتى”, yet the spelling mistake is the result of lack of competence. The second statement is written in SA in the Arabic script and it is not produced by the user but he shared it. It contains no spelling or grammar mistake except omissions of the *Hamza* from “اقترب”. In this example, there are two cases of diglossic code-switching; the first one is found within the first statement and the second one is in the status update as a whole in which the Facebook user was using Algerian Arabic alongside SA with a spelling mistake and then he switched to SA through sharing another post. Like SA, the use of English by the Algerians on Facebook also exhibits many innovative practices.

4.2.3.4. Adoption and Localisation of English

English has very restricted usages in the Algerian linguistic landscape offline, it is mainly used in education, international organisations, and some economic spheres like oil and gas sectors. However, unlike Arabic, Berber, and French, it is rarely used as a language of communication, though it is recently gaining prestige amongst Algerians. Surprisingly, English is seeping gradually to the Algerian linguistic practices in the digital environments of communication and what is more interesting about that is the way it is deployed in their behaviours on Facebook, for instance. Due to the integration of English in the educational system of the country, on the one hand, and the increasing rates of educated Algerians, on the other, many have at least little commend of basics in English, though English language proficiency in Algeria is still very low (see item 1.4.4.2.).

In addition, it is widely considered as the “lingua franca” of the Internet, the vehicle of most research browsers, the language of science, technology, tourism, fashion, music, etc. This has also been coupled with the recent Algerian educational reforms that promote the use of English in universities, which will raise people’s interest in learning as well as using it more than ever before; especially that the digital environments provide free spaces where they can practice their productive skills with others with less feelings of anxiety that learners of foreign languages often have in face-to-face situations. Besides, Algerians also undertake cross-cultural communication on the Internet with people from different parts of the world who use English, including Arabic-speaking regions. That is, people can easily come across the English language online, especially in an era of digitalised social practices. Accordingly, exposure, acquisition, and adoption/use of English online are commonplace and sometimes unavoidable. Three broad themes are tackled below as far as the use of English by the Algerians on Facebook is concerned: 1) use of English, 2) linguistic characteristics of using English, and 3) innovative linguistic strategies in using English.

i. Use of English

Indeed, many new linguistic practices have been observed as far as the use of English is concerned. It is relatively widely used in status updates and comments, as it is possible for users to edit what they write and they do not really need to have a good command of a language to use it in these writing spaces due to the digital affordances of Facebook. That is, in addition to their own language productions, people can also use the language via inserting and sharing ready-made content (videos, written pictures, expressions, etc.) in their status updates, comments, and even private messaging. Accordingly, with the growing number of university students subscribed in departments of English, who outnumber all rates of enrolments in departments of foreign languages and who are supposed to have at least basic communication skills in the language, the use of English is so expected on Facebook. Yet, its use is not only restricted to students of English as many others use it due to its global status and reach.

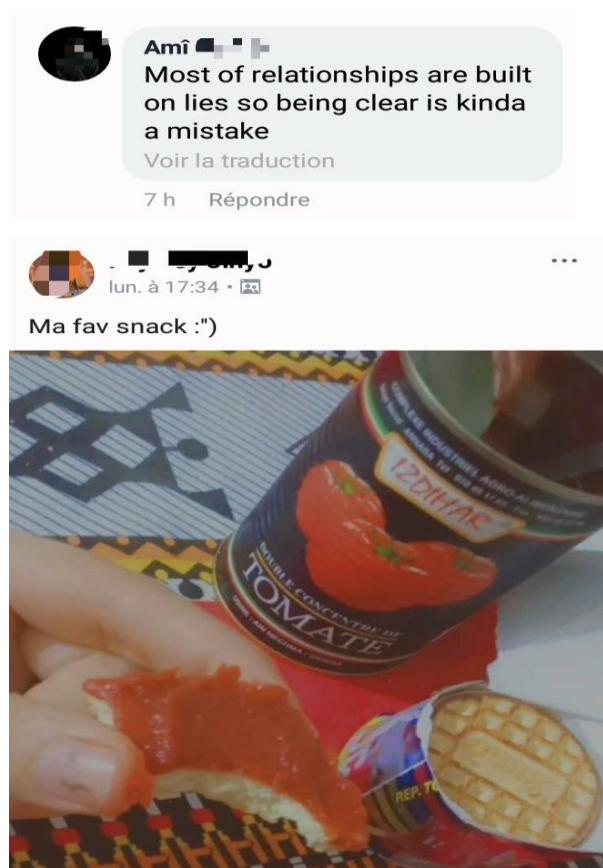
For instance, the use of English by one of my Facebook friends, a male of 26 years old and a soldier in an important military academy where English is a requirement, constitutes 18.75% of his status updates in the period between July 2018 and February 2020. In another Facebook participant’s (who studies Hydrocarbons at the university) linguistic practices, the use of English constitutes 42.10% of his status updates; ranked second after the use of French (47.36%). He also mixes between French and English (10.52%), uses Algerian Arabic

represented in LA (10.52%), and the use of SA constitutes only 5.26% of his practices. Last but not least, another Facebook friend who uses the English language in spite of the fact that she is not studying it as a specialty (a girl of 19 years old, she is a university student of economy), her usage of English is dominant in her status updates, constituting 82.60%. This includes: 56.52% of inserted written pictures, 21.73% statements of her own production, 2.17% a statement of her own production written in Algerian Arabic represented in LA alongside English, and an inserted picture written in Arabic represented in the Arabic script (only one word) alongside English. However, the use of Arabic and French constitute only 10.86% and 6.52% respectively of her status updates. Accordingly, it is interesting to investigate the linguistic characteristics of using the global language in local contexts by the Algerians on Facebook.

ii. Linguistic Characteristics of Using English

Another important characteristic of the way English is used on Facebook is the dominance of the informal style, which is full of slang expressions, shortened forms, and exaggerated spelling. For instance, the screenshots bellow are taken from a Facebook group that has more than 213 thousand members and that only allows the use of English.

Example 23: Use of Informal Style



In the first screenshot above the word “kinda” has been used instead of “a kind of” and in the second one “my” has been typed “ma”. Spelling of these words is mainly based on the American informal accent which is widely used in movies and which is much appreciated by young people. In addition to that, the word “favourite” has been shortened to be “fav”; this form is called clipping (see item 4.2.1.2.).

In addition to clippings, all other forms of non-standard spelling are applicable to English and are frequently encountered in Algerian linguistic practices on Facebook, since this is a global phenomenon that is found in most languages all over the world mainly due to the electronic, synchronous, and informal nature of communication in the digital environments. In contrast to shortened linguistic forms, people also write words in exaggerated ways.

Example 24: Exaggerated Spelling



This kind of writing is also omnipresent online, since it is often employed as a substitute of non-verbal cues (see more details in item 4.2.4.1. below); it represents in this case surprise. Moreover, the word “girl” is written in an unconventional way “gurl” according to its pronunciation. In other words, informality of language use on Facebook contributed to the transliteration of words and expressions depending on the way they are pronounced leaving behind all standard typographic conventions to the extent that many people label this form as a “written speech” and consider them as spelling mistakes that have been fostered by online communication and that are leading to a linguistic ruin. In addition, many other new usages of English have been encountered on Facebook.

iii. Innovative Linguistic Strategies in Using English

Actually, these informal and non-standard usages of languages have long been discussed by many people who were interested in the impact of the Internet on language since the 1990s. Yet, the current research also tackles the spread of English to the Algerian sociolinguistic practices from other perspectives; mainly adapting it according to what suit people’s communication needs, particularly linguistic and cultural needs. This has led to the localisation of the global language and the emergence of many unprecedented linguistic phenomena in the

Algerian context. More importantly, this research also sheds light on what impacts such behaviours will have on the Algerian sociolinguistic profile in the near future.

In addition to the aforementioned linguistic features of employing English on Facebook by Algerian participants, many other usages have been encountered. Three of these practices will be tackled in this section. First, English is often mixed with other languages mainly Arabic and French. Second, it is either represented in Latin or Arabic scripts. Last but not least, people use English in a particular way to represent local cultural meanings. The following screenshots are illustrations of these phenomena.

Example 25: Switching between English and other Varieties



This comment is a reaction to the status update in example 23 above. It is written in English alongside Algerian Arabic represented in Latin script, involving the three types of code-switching according to Poplack (1980) classification. Extra-sentential code-switching is found by the beginning of the comment where this person started using an acronym of the English expression “oh my God!”, which is employed as a single word in Internet chat. Then, s/he switches to Latinised Algerian Arabic that entails within English words (intra-sentential code-switching) “*I dispute with **mom** in order not to put **one table spoon** in food and you are eating it (conserved tomato) directly*”. The word “mom” and the expression “one table spoon” have already been inserted in English within Algerian Arabic in the comment. Finally, there is an inter-sentential switching, since the whole grammatical structure has changed.

English words are also involved within Algerian Arabic represented in the Arabic script. What is interesting is that even English words are often typed in the Arabic script.

Example 26: Arabised English

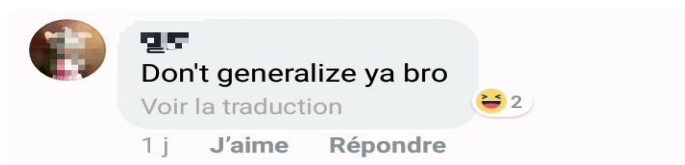


Translation: *you also buy juice of 10 dinars (surprise emoji) oh my God*

The basic variety used in the comment is Algerian Arabic represented in the Arabic script with an inserted French word represented in Latin script “jus” and an English expression that involves script-fusing. That is, the latter is written in the Arabic script with a borrowed Latin letter inserted within a word written in the Arabic script: "هوماي غاقد" (oh my God). The whole Arabised English expression has been represented as if it were one word (without any spacing between words). The letter (g) has been inserted into the English expression written in the Arabic script, this form of language use is called script-fusing in which two scripts have been fused within a single word (see item 2.9.1.3.). As for the inserted French word, a possible explanation of avoiding typing it in Arabic, in spite of the fact that this phenomenon is widespread on Facebook, is mainly because the French sound /u/ is not represented in the Arabic language. Yet, others would write "جي" or "جو" but in both case the pronunciation is different from the French « jus ».

Switching between codes has significant functions in online discourse since people employ different codes to convey specific meaning. English for instance is often deployed in creative ways to represent local Algerian cultural values and expressions. That is to say, English sometimes is read as if it were a local variety and it is, hence, understood only by Algerians.

Example 27: Localisation of English



This comment is written in English except the pronoun “ya” in LA. The term “bro” is a clipping form of “brother”. Actually, it is not this non-standard typographic form that attracts the attention since such a practice is widely used on Facebook especially as far as languages with a Latin script are concerned. However, the sentence would have been read differently if it were simply written: “don’t generalize bro”. Adding the pronoun “ya” does not only refer to intra-sentential code-switching but it also has a significant meaning since this person must be using the slang expression that is typically used by people from Algiers “ياخو” (a clipping form of the Algerian Arabic word “خويا” in the same way the English word “brother” has been clipped) and that identifies their belonging once they utter it. Thus, reading and understanding the statement requires knowledge about how it is really used offline.

Moreover, people also localise the English language without even switching between codes. They, for instance, use English but the meaning is Algerian; i.e., people use a kind of word-by-word translation of Arabic expressions in their usages of English. This usage can either be unconscious, as a result of the impact of the second language on the first language when the speaker is not really competent in the former, or it can be used intentionally to transmit a particular meaning, most of the times a cultural one, that cannot be conveyed otherwise in English.

Example 28: Word-by-word Translation of English



In this case, the statement can be better understood when combined with the image inserted. Actually, they together represent Algerian women who do not like to be given orders or to receive instructions. The image does not only help the audience grasp the tone of voice, but it also helps them understand the real meaning of the sentence in the comment. In other words, the English expression is loaded with Algerian cultural meaning.

Thus, the above illustrations and analysis point to significant conclusions as far as the use of English by the Algerians on Facebook is concerned. It is intensively used by university

students of English; such a phenomenon should not be taken for granted since the growing rates of students' enrolments and interest in studying English is leading to the spread of the language in Algeria. However, it is not only used by students of English, even others who study other specialties use it on Facebook because they study it as a foreign language in the different university levels (licence, master, doctorate), especially with the recent educational reforms that go in favour of promoting it. Furthermore, usage of English is not restricted to university students due to the fact that it is the global language: *"it is used in a host of various countries, contexts, and in a range of different forms, functions, discourses, and media – spoken or written"* (Zahali, 2016: 54). That is to say, exposure to English is inevitable, and accordingly acquiring it (at least basic knowledge and vocabulary) is more possible.

Interestingly, in addition to the many linguistic phenomena that are said to characterise all linguistic practices online as a result of the impact of the new media of communication on language (such as the dominance of informal styles, shortened forms, grammar and spelling errors, exaggerated typographic forms, etc.), many other new behaviours have been encountered on Facebook. Digital resources make it possible for people to use English though they are not really competent in it, via inserting and sharing ready-made content. Besides, English is also widely used in comments; it is mainly used alongside other varieties like Arabic and French. Actually, this can be considered as a new linguistic practice in the Algerian profile since code-switching and borrowing have been particularly restricted to French in addition to many loan words from different languages installed within some regional dialects as a result of historical factors (mentioned in chapter 1). However, the presence of English in informal situations has never been as intensive as it is now in the digital environments of communication.

As has been exhibited in the illustrations above, Facebook witnesses the emergence of many innovative ways of using English, as it is being gradually integrated in Algerians' comments and status updates. Interestingly, many borrowed English words and expressions (typed either in Latin or Arabic scripts) have been adapted to the linguistic system as well as the local cultural features to meet people's communication needs in the new digital context leading accordingly to the indigenisation, vernacularisation, and localisation of the global language in unprecedented ways in the Algerian linguistic landscape. Hence, this raises questions as far as the position of the English language in Algeria is concerned, since competition between English and French became more salient. The language which has long installed itself in the country as the prestigious medium of communication, education,

modernity, openness to the world, etc. has been challenged by the global language even in informal situations like Internet chat.

Accordingly, the intensive use of English by Algerians of different educational levels in informal contact situations (Facebook) is leading to immense interference between the different varieties (mainly English and Arabic) at all linguistic levels: phonetic, morpho-syntax, and lexical-semantic. Zahali (2016: 63) claims in this respect that:

Linguistic interference can be viewed from a sociolinguistic point of view as a change in linguistic structures that leads gradually to language change or to the emergence of a new variety that incorporates features from both languages and more importantly that best represents the local culture of its users and meets their communication needs.

Indeed, English is acquiring new features across the different regions and social contexts leaving out its ‘traditional’ standards and adopting new characteristics wherever it goes leading, hence, to the development of many varieties; known as ‘World Englishes’. So, are we at the brink of the emergence of a new variety of English that suits the Algerian context as a result of these linguistic practices in the digital environments of communication? Is English being nativised and indigenised in the Algerian sociolinguistic situation as much as French did? Can this be considered as a threat to the French language in Algeria in the long run?

Besides, adaptation of English by the Algerians as well as the linguistic changes that it is encountering online also raise questions as far as its impact on the Arabic language and culture is concerned. Arabic speakers have always considered the global spread of English to be a form of linguistic and cultural imperialism, a new version of colonisation which has especially been fostered by the global spread and the public use of Internet for interpersonal communication. However, even English itself is witnessing immense change at all linguistic levels but this has proved its permeable nature to adapt itself to fit various domains and contexts of use. This is actually one of the major factors that led to its spread worldwide, as people do not need to master its standard version to use it. That is to say, what threatens the Arabic language and culture is the powerlessness of its speakers in all domains; social, economic, political, scientific, etc. not the English language since language change is a natural consequence in contact situations, which have been fuelled after the advent of the new media of communication. Furthermore, the examples above also show the interplay between different modes of discourse

and how they are together important in the construction as well as the interpretation of meaning. Many non-linguistic signals have been employed alongside language on Facebook.

4.2.4. Paralinguistic Displays

Paralinguistic displays play a considerable role in any form of human communication and this has been one of the most important factors that attracted public criticism of CMC, which has been accused of lacking non-verbal cues if compared to face-to-face communication. Such an observation was right to some extent in the beginning of the advent of Internet because text-based communication was dominant. However, with the development of the second generation of the world wide web that allows people to participate and create their own content online, more and more multimodal possibilities and affordances have been put into practice to represent paralinguistic cues. In other words, people could adapt to the situation and tame the modes and semiotic resources available online according to what suit their communication needs. This has also been coupled with the regular technological developments of communication sites that try each time to improve their services to meet the requirements of communication to attract as much subscribers as possible.

Actually, paralinguistic displays in the digital environments of communication do not imply the same modes like that of face-to-face communication since they are different from each other. Accordingly, modes of representations should be understood in their own terms instead of borrowing frameworks and applying them. The wide adoption of these communication sites can be considered as an evidence to the fact that communication online is as successful as offline. In addition, it is even observed that technologies of communication are not only altering the way people get in touch with each other, but even social behaviours are changing in unprecedented ways. For instance, many prefer to spend their time in the digital world instead of having fun with family members or friends. That is to say, digital communication does not lack non-verbal cues, but rather it has its own version that suit the nature of the electronic context and people find them more attractive and enjoyable.

Many CMC cues are used by the Algerians on Facebook and they can have similar effects like that of face-to-face non-verbal cues. Non-verbal signals online include timing aspects (impression formation is shaped by the time of sending, receiving, and answering messages); frequency of messages; inserted pictographs, and typographic marks (Liu & Ginther, 2001). This research will pay much attention to ⁽²⁾: 1) exaggerated use of punctuation and letter

repetitions, 2) use of emoticons, 3) use of emojis, 4) use of stickers, and 5) use of Internet memes.

4.2.4.1. Exaggerated Use of Punctuation and Letter Repetitions

These forms are amongst the very first paralinguistic signals to emerge since the advent and the spread of CMC and they are still widely used in spite of the many other forms that emerged with the development of communication media as well as people's digital competencies. Due to the dominant use of text-based communication on Facebook, despite the availability of audio-visual modes, Algerians still use some punctuation marks and letters in exaggerated ways to represent particular paralinguistic content. The following screenshots provide some examples of randomly selected cases of the issue under study.

Example 29: Repetition of Letters in French.



This example contains two screenshots, the first one is a status update that combines a word written in French (good morning) and an inserted image of a baby whose cloth is written in Arabic (kissing is forbidden, corona). Comments to this status updates are written in French too. Yet, sometimes participants use some Latin letters in exaggerated ways. The letter (h) is repeated in the first as well as the second comment to indicate laughter, a behaviour that cannot be represented in text-based communication only if users adopt non-standard typographic practices or other visual signals. The fourth comment contains a similar practice, as the participant also represented laughter via repeating letters (h) and (a) several times. This points to the fact that though such practices are global, they still manifest idiosyncratic usages since there is no standard form followed by everyone.

In the third comment, the word “bizou” (kiss) is written in a non-standard way, with repeating letters several times to indicate enthusiasm and having strong emotions towards the kid in the picture. It should be noted also that such usages are not only restricted to languages of a Latin scripted writing form. Arabic is also affected by online communication, as will be shown in the following example:

Example 30: Repetition of Letters in Arabic



Translation: -repetition of the letter (h) to represent laughter

-The crisis today is a crisis of ethics

Arabic is also subject to such a phenomenon, since people can play with the possibilities of the keyboard (or keypad) to represent emotions and many other paralinguistic displays like laughter in the first comment above and emphasis in the second one. The latter includes not only repetition of letters (like in the first comment “هههههههههههه” and the second one “اخلااااق”) but even the word “ethics” (أخلاق) has been written twice. The participant in the second comment has also typed the full stop twice within the sentence. That is, it is not used to fulfil its usual standard function, but it is employed for other usages online. Indeed, exaggerated repetitions of punctuation marks are commonly observed on Facebook, see the coming example.

Example 31: Repetition of Punctuation Marks



Translation: *It was ... necessary to quarantine???*

It is clear that the new communication media are arena for the emergence and spread of many unprecedented forms of writing. As indicated in the above example, full stops and question marks are used in exaggerated ways to substitute the absence of some non-verbal cues that are used in face-to-face communication. The former is employed in new spaces within the sentence (between words and before the question mark). Besides, three question marks have been typed successively and they have been inserted in spite of the fact that the structure of the sentence, if it were to be considered so, is not in a form of interrogation.

In a nutshell, due to the fact that interaction on Facebook occurs between interlocutors who are not physically present together, many non-verbal cues that take place in face-to-face communication will not be present; like tone of voice, facial expressions, physical appearance, etc. which play a great role in the construction as well as the interpretation of meaning. Yet, people could adapt to the situation by using the semiotic and digital resources available online to communicate non-verbal meaning. In other words, the digital environments of communication have their own version of paralinguistic signals that suit the electronic context and they have similar effects like that of offline interaction. Interestingly, language online keeps developing; i.e. each time new forms of language use emerge and evolve because people's linguistic as well as digital competences also develop depending on the new environments of language use. For instance, people in the beginning of CMC, used punctuation marks in stylistic and creative ways to represent some facial expressions like a smile :), sadness :(, a wink ;), etc. These usages have developed later on to the new generations of emoticons; emoji and stickers (see item 2.7.2.3.) to represent non-verbal cues, known as CMC cues.

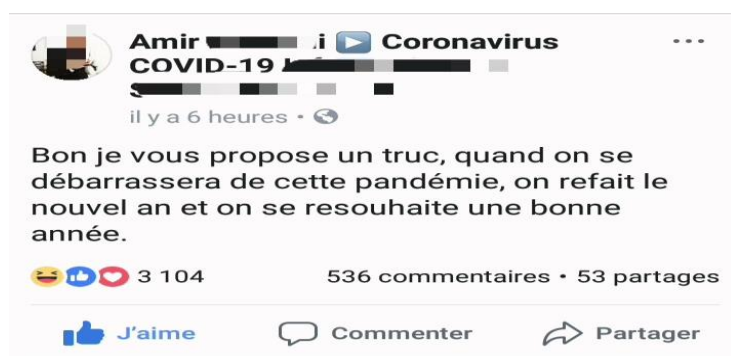
4.2.4.2. Use of Emoticons

The electronic nature of the new communication media fostered the emergence of many new strategies for self-expression and representation instead of hindering communication, especially in text-based means. Indeed, people could cope with the characteristics of the new context of language use and adapted its resources in a way that suit their communication needs. For instance, they make use of letters, punctuation marks, and some symbols in creative ways

to surrogate the absence of facial expressions (Baron, 2002; Thurlow et al., 2004; Crystal, 2006a). That is to say, online interaction gave birth to new forms of representation; namely the use of exaggerated spelling, repetition of punctuation marks, and emoticons (emotion icons constructed via a combination between punctuation marks to represent and express emotions).

In order to illustrate that, content has been chosen from a Facebook Group, which has been created in the period of the spread of Coronavirus Covid-19 in Algeria to post and tackle everything related to the pandemic. So, all comments of the chosen status update bellow, that entail emoticons, emojis as well as Internet memes have been screenshotted for analysis and discussion (see details in the subsequent sections).

- **The Status Update Selected for the Analysis:**



Translation: *well, I propose something on you, when we get rid of this pandemic disease, we repeat the new year and we wish again a happy year.*

Different paralinguistic signals have been employed by people in comments namely; emoticons, emojis, stickers, Internet memes, gifs, videos, exaggerated use of spellings forms, etc. These displays are either integrated with, within, or instead of a written comment, depending on the characteristics of each one of them. As far as emoticons are concerned, people still maintain using them in spite of the availability and the popularity of the other visual and audio-visual modes. Emoticons are the product of the Internet used mainly to express emotions that could not be expressed otherwise by the beginning of text-based CMC before the emergence of the other modes. In the screen data chosen, only five comments contain emoticons, shown and analysed below. They can be classified into four categories according to the way they have been constructed: combination between letters, a letter and punctuation mark, punctuation mark and a number, and different punctuation marks.

Example 32: Form and Function of Emoticons



Translation: *We jump 2020 I think that this is much better (emoticon of laughter)*

This comment contains an emoticon of laughter at the end of the statement. It is made up of a combination between two letters (x) and (d), the first is a small letter while the second is capitalised. The former is often employed in emoticons to represent closed eyes (because of laughter), whereas the latter (capitalised d) represents an open mouth. So, together they resemble a laughing face with closed eyes and open mouth. At a first glance, one may understand that this emoticon is used to express emotion as it can serve as a substitute to facial expressions. Yet, such a superficial analysis deprives us from considering other possible functions. Actually, it can be better understood when combined with the other modes of discourse in their particular context, as it may represent sarcasm and humour.

Example 33: Form and Function of Emoticons



Similarly, the emoticon of laughter is also inserted after the statement: “*a very good idea*”. Laughing face here is represented via a small (x) and three successive closing brackets. Usually, closing bracket is used to represent a smile. Yet, due to repeating it three times and integrating it with the letter (x), which refers to closed eyes, it is understood as a laughter; bearing in mind that constructing emoticons and many other representative symbols is most of the times idiosyncratic though there are many universal forms. In this case, it mainly refers to the fact that the idea is a mere imagination that cannot easily come true because of the serious crisis that the world is facing.

Example 34: Form and Function of Emoticons



This comment includes repetition of the same emoticon three times after the written statement: “*happy new year 2020*” (typed in the Arabic language though the post was in French). The emoticon is made up of a combination between colon and number (3). It represents a sarcastic smile, with a rabbit-like face, referring to an irony. It means that the new year is not happy at all due to the spread of Covid-19 which is killing thousands of victims all over the world. The comment as a whole contains a kind of intertextuality, or quoting an expression of a Moroccan person who became so famous in the Maghreb region due to a video he shared in his Facebook account wishing a happy new year to people. So, with the coming of coronavirus and the spread of bad feelings, this Moroccan person is considered to be a bad omen. That is to say, the emoticon in this comment does not only refer to a facial expression, but rather it determines the exact meaning of the comment and it is understood only in its right context; i.e. someone who is not familiar with the video, wouldn’t understand the right meaning of the comment.

Example 35: Form and Function of Emoticons



Similar to the previous comment, this one also refers to the Moroccan person’s video since readers can sing the comment due to the way the second word is written, with exaggerated use of letters. The statement “*2020 happy new year*” is also followed by an emoticon that presents irony. It is made up of a combination between different punctuation marks: colon, apostrophe, and a closing bracket. The latter is usually used to represent a smile in a happy face. However, in this one it is not the case since the apostrophe used after colon (eyes) is often used to represent a tear. In other words, the emoticon is smiling with tears, not of happiness. This might refer to the fact that the year is not happy (represented in linking between a tear and a smile). It also criticises the Moroccan video.

Example 36: Form and Function of Emoticons



The statement: “*a good idea I swear*” is followed by an emoticon made up of punctuation marks and an emoji that represents triumph. The emoticon may represent the difficult moments

that Algerians, as well as people all over the world, since the beginning of the year. That's why this person thinks that celebrating a new year after defeating the virus would be a good idea.

4.2.4.3. Use of Emojis

New updates of emoticons (emojis and stickers) have been provided by developers of communication technologies and they became widely used to the extent that they replaced their predecessors, except in very few occasions. Emojis exhibit a wide range of usages and functions and they are not merely used as substitutes of face-to-face non-verbal cues. For that reason, understanding them should take into account their placement in discourse instead of perceiving them as translations of facial expressions because the same emoji may have different meanings in different contexts (Darics, 2013). For example, they can disambiguate messages and reinforce the content (Rodrigues et al., 2017); they express emotions and substitute a text (Lee et al., 2016); they are also widely integrated within text messages as part of the online language (Vandergriff, 2013; Kalman and Gergle, 2014; Lea et al., 2016) as they serve as actual words within digital discourse (Pierozak, 2003 cited in Marengo et al., 2017) and they punctuate digital discourse like a comma or colon would do (Provine et al., 2007 cited in Garrison et al., 2011). These functions have been clarified with illustrations bellow:

i. Use of Emojis to Disambiguate the Message

Example 37: Use of Emojis to Disambiguate the Message



Translation: (laughter) *I hope it will end, that's all* (emoji of laughter with tears of joy)

The emoji in this comment does not only represent laughter, but it also disambiguates the message, which would have another meaning if another emoji (of sadness for instance) have been inserted instead. Laughing emoji in this context does not represent happiness but rather it represents sarcasm, because Algerians today (24 March 2020) are in the mid of a global health crisis (the spread of Covid-19, widely known as Coronavirus), that no one knows how is it possible to get out of this situation. As for the position the emoji employs in the text, it serves as a supplement to the written part since they both contribute to the construction of the required meaning.

ii. Use of Emojis to Reinforce Content

Example 38: Use of Emojis to Reinforce Content



In the three comments above, the different emojis are inserted after written expressions as a supplement to the text; employing emojis in this case serves a functional purpose. The first one includes repetition of the same emoji (joint hands, often used for prayers) and it refers to the fact that this person really wishes that this situation (the spread of coronavirus) will end in order to celebrate the year anew. The emoji of clapping hands in the second comment reinforces its content, as well (the participant strongly agrees with the idea in the status update). The last one includes an ancre using a hand emoji and a letter (with both repeated twice) also to reinforce the content of the comment and to show agreement with the post. Accordingly, these comments wouldn't have had the same interpretation if written without emoji; i.e. meaning is reinforced when combined with a well placed emoji.

iii. Use of Emojis to Express Emotions

Example 39: Use of Emojis to Express Emotions



In this case also emoji are inserted alongside a written message. They are employed in these comments to express emotion. In the first comment, the participant said *“I am afraid it (the year) will repeat”* and she carried on her comment by using five successive emoji (two crying emoji and three ones having masks on their faces, referring to coronavirus). That is, the girl did not like the idea because she is so afraid that this will bring again coronavirus, which terrified people all over the world. The second comment also expresses fear: *“yes I swear I wish Allah will protect us, that’s all”* and then she inserted an emoji of a fearing face with a sweat on its left cheek. The last one said: *“no, we will forget this year.. if we repeat it everything will be reproduced again”* and then she inserted an emoji with a tear (for sadness). So, using emoji in these comments as supplements to the written messages help readers detect the emotional state of their users and their attitude towards the idea in the post.

iv. Use of Emojis to Substitute a Text

Example 40: Use of Emojis to Substitute a Text



Emoji can also stand by themselves without including any written messages, they serve in this case as substitutes of a text. In these examples, the heart (twice), the Like hand, and then four Like hands in the same comment are used to indicate acceptance of the idea. Of course, every one of them has its special meaning; the use of the heart refers to the fact that this participant ‘adores’ the idea; the use of one Like hand means that the idea is good and this person likes it; while the use of four repeated Like hands refers to the degree to which this person likes the idea, bearing in mind that both emoji (the heart and the like hand) are also parts of the interaction choices provided to Facebook users (see example 1 above) and they have their own special meanings.

In the different cases mentioned above, emojis occur either at the end of the written message to supplement the text or inserted alone as a substitute. Yet, they are also employed in unusual positions; as they occur within digital discourse as part of it either to serve as actual words or to punctuate discourse.

v. Use of Emojis to Punctuate Digital Discourse and Serve as Actual Words

Example 41: Use of Emojis to Punctuate Digital Discourse and Serve as Actual Words



Translation: *I missed publishing stories (emoji of a pen) but it seems that the group became a supporting club in World Football (emoji of laughing face with tears of joy) all feelings are to (emoji of a soccer ball)*

The three emojis have been inserted within the sentence as if they were punctuation marks. The third one however replaced an entire word; an emoji of a ball has been included instead of writing the word “football”. Actually, emojis can be understood as part of the whole discourse and they do not only express people’s emotions due to the lack of face-to-face non-verbal cues in the digital environments of communication. In fact, the use of emoji adds a particular meaning to the message written since they constitute part of the overall digital discourse. In this example, the emoji of the pen represents the stories that people usually post on Facebook, yet this has turned to be discussions about football since many Arab teams participated in the World Football Cup. Then, the laughing emoji disambiguates the message since meaning would have been different if a sad emoji has been inserted. It mainly carries a sense of humour and sarcasm. Accordingly, emojis are employed hand in hand with words, within a single sentence. This implies the fact that they are part of online language itself; as they punctuate it as much as punctuation marks do and they can even serve as actual words. This may also point to the fact that the use of emojis happen at the same time of language production like the use of non-verbal cues in face-to-face communication, since the former is integrated within the latter and

understanding discourse requires considering these paralinguistic displays which occur at the same time of speaking.

As has been said above, emojis are integrated within the written text as part of it exactly like non-verbal cues in face-to-face communication. Such usage of emojis may fulfil many functions; for instance, attract the attention of Facebook users, who often avoid reading long posts; express the emotions of this person at every phase of the story; disambiguate the real meaning of every statement, and punctuate the discourse. Indeed, understanding language online requires not only decoding its linguistic items but the other multimodal elements also play a considerable role in the interpretation of online texts. In addition to emojis, stickers are also widely used.

4.2.4.4. Use of Stickers

Unlike emojis, stickers cannot occur within the written text as actual words or punctuation marks. They are either used as substitutes to the whole text or at the end of it; i.e. they cannot be employed within the text due to their technical features. In other words, they can be used independently to represent a message without saying a single word or they can provide a visual information to the already written message. The following examples of using stickers are also taken from the comments of the status up date mentioned above.

Example 42: Use of Stickers as Substitutes to the Written Message



These comments include only inserted stickers without any written text and they both mean that they agree with celebrating again the new year after the end of this pandemic. The first one is an animated picture of a man who is clapping his hands because this Facebook user who commented liked the idea. The second one includes two animated hands clapping each other, and the movement represents a deal or a kind of a promise.

Example 43: Use of a Sticker as a Supplement to the Written Message



Stickers can also be inserted alongside a written text, as they serve as a supplement to the message. In this case, the statement: “*I hit my head on the wall*” is supplied by the animated sticker of a rabbit hitting its head on a wall. In other words, the sticker provides a visual representation of the statement’s meaning. So, the sticker in this comment reinforces what has been written; there might be other functions and interpretations that depend on the context in which the sticker is inserted. The overall idea of the comment is that this Facebook user did not like celebrating the new year again.

4.2.4.5. Use of Internet Memes

If compared to emoticons, emojis, and stickers, Internet memes are the last means of expression and representation to be used and spread for a larger audience in the digital environments of communication (for the time being). In terms of structure, they are so similar to the usages of stickers, as they can either be employed as substitutes or as supplements to the written message, yet they never occur within (like emojis and emoticons). However, they have more functions since they can themselves include a written message. In addition, memes can provide links to other representations and experiences stored in the readers’ mind. In other words, the meme used can represent a sound, an idea, a story, etc. that are mainly linked to a particular culture. This might bear a great resemblance to what is widely known as intertextuality.

Internet memes are most of the times inserted with a written text as a supplement. Combined together, they constitute a multimodal discourse; a text that includes different communication modes (linguistic and visual elements). The upcoming illustrations show how texts combine between different communication modes in discourse. For instance, language (in the written part of the message) itself may include several semiotic resources such as borrowing, switching, exaggerated spelling, etc. that communicate particular meanings. As for their role as paralinguistic signals, memes are often employed to represent tone of voice, the way of pronunciation, and sounds that cannot be represented otherwise in text-based communication. Alongside the written part of the text, the inserted meme completes the message. Memes have broader usages than the written text; ‘an image is worth a thousand word’. Actually, people online use particular memes because they convey specific messages and impressions (because they have regular patterns/grammar). They may even represent particular sounds and ideas linked to certain events or cultures. That is to say, considering memes as mere representations of facial expressions and emotions provides a superficial understanding of this semiotic resource and deprives us from seeing the complexity of digital discourse as well as human’s creativity in the way they adapt all available resources for self-expression and self-representation in the new communication contexts.

Accordingly, the following comments of the status update above have been randomly selected to show this link between text and image in the same discourse and how people draw on the available resources to communicate. Memes are most of the times culturally loaded, as they are tied to particular cultures and understanding them requires knowing this culture; except when they are employed to represent emotions because in this case they can be understood by anyone. In other words, two types of memes can be figured out: global and local. They can be pictures of actors, politicians, singers, YouTubers, animals, animation characters, etc. Interestingly, memes are subject to change, as much as slang words and expressions do, since each time they are updated and these updates spread to wider audience and become trendy.

Example 44: Usages of Internet Memes



The comment includes a written text with an emoji and an inserted meme (the image of the Moroccan man who sang at the break of the new year 2020 and whose video spread amongst the Algerians who consider him a bad omen due to the many difficult moments they experienced since the beginning of the year). The person who commented seem to not like the idea of celebrating again the year because this became associated with negative feelings. In other words, wishing a new year would bring bad luck; the same what happened with the beginning of 2020 and the Moroccan person became an icon of this idea. This is represented through his photo taken from his videos as a meme referring to the association between bad luck and celebrating a new year.

Example 45: Usages of Internet Memes



This comment also includes a written text alongside an inserted meme that represents the feelings as well as the point of view of this Facebook user towards celebrating the year again. The word in Algerian Arabic in the comment written in the Arabic script "مأه" (which means no) is written in an exaggerated way with repeating the mid letter several times to represent the

tone of voice. Then the meme inserted with the word represents the facial expressions of the person who commented and it corresponds to the tone of voice represented in the exaggerated spelling of the word. In other words, the two semiotic expressions complement each other; as the former represents the voice whereas the latter represents the face and they together mean that the commenter did not like the idea of the status update. This may also be linked to the bad feelings associated with celebrating the new year that is stuck in the memory of the Algerians since the beginning of 2020. As for the meme used in the comment, it is a picture taken from the videos of a famous Algerian YouTuber who uses a filter in her videos to hide her real facial cues for humour as well as for cultural considerations. The crying face with, especially, an exaggerated big mouth, small nose and sad eyes represent the sad feeling of this person toward celebrating the year and they also supplement the written word in the comment.

Example 46: Usages of Internet Memes

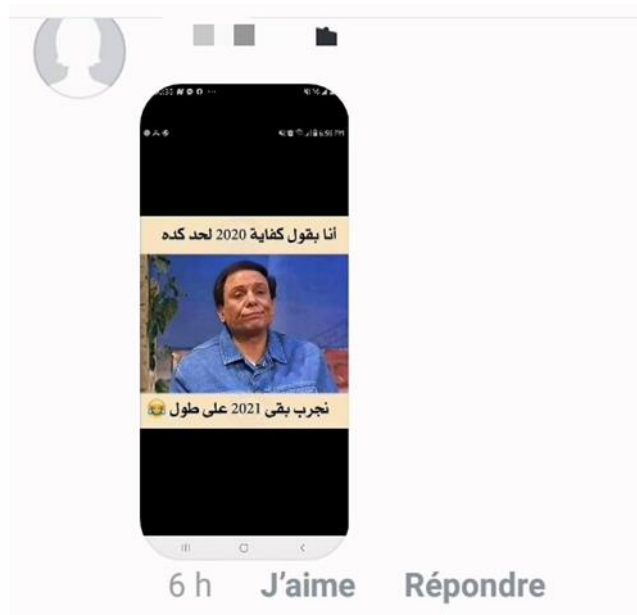


Though the comment includes both of a written text: “*never we pass directly to 2021 this is better*” and a meme, it is a bit different from the others above since the meme itself includes a written text as well: “*two-thousand and twenty a happy new year*”. Before getting into the meanings conveyed via the image, it is important to mention that the meme represents the impression of this Facebook user towards celebrating the year again and it, thus, complements the meaning of the text and it even explains why the commenter did not like the idea.

The meme includes a village written on it in Arabic: *Two-thousand and twenty*” on its top at the edge of the picture where there is sunlight that springs from the clouds. All these images together represent the new year 2020 that the world is experiencing with having many wishes and hopes that this year will be better. That is, sunshine represents the break of the new year as

well as people's hopes and wishes in spite of the difficulties they experienced before (this may be understood through the clouds that almost hide sunrise). To the left side of the picture, there is a very thick, huge, dark, and dirty cloud with the colour of dust that hides the rest of the village and that seems to spread towards the right side of the village with a face of a dog. This refers to the many bad moments that the world is experiencing and that is going to hide sunrise, hiding thus all people's hopes and wishes they had at the beginning of the year. Indeed, coronavirus Covid-19 did not only cause the death of many people all over the world but it also led to dramatic global economic, social, and political issues. In addition, the dark cloud also includes an inserted written text: "*happy new year*". This represents an irony, that people wish the new year to be happy while it is actually very sad and difficult. It also refers to the bad omen associated with the song of the Moroccan man, which includes the same words: "*two-thousand and twenty a happy new year*". Accordingly, celebrating again the new year would bring the same bad luck.

Example 46: Usages of Internet Memes



This comment includes only a meme that substitutes a whole text, yet it includes a written text within. The meme represents a combination between facial expressions and voice; as anyone who reads a text which is associated with the photo of the Egyptian comedian Adel Imam would read it in the way the actor pronounces it. The inserted text is divided into two parts; on top of the meme: "*I say enough 2020 for now*", the part below: "*we try 2021 directly in addition to an inserted laughing emoji with tears of joy*". Besides, the placement of the two statements is not random since the first one is about the year 2020 that began with difficult moments, while the second one is about the year 2021, which is still too far. The text is written

in Egyptian Arabic using the Arabic script. This is so significant as far as paralinguistic displays are concerned, as it is as if the commenter were quoting Adel Imam; i.e. borrowing his voice, way of pronunciation, and even his funny manners. Interestingly, the functional use of other Arabic dialects by the Algerians is omnipresent on Facebook. In this case, as mentioned before, Egyptian Arabic has been used as a semiotic resource to represent the humorous and funny sense associated with the comedian in the picture. As for the image of Adel Imam, it is also employed for its semiotic significance; for it helps to determine the way the message should be read and understood. It also carries a visual message, since it can be considered as a substitute to the commenter's facial expression (the sarcastic smile of the actor). In other words, the image of Adel Imam and the inserted text are considered as two different modes that complete each other in the same discourse. For instance, without the image of this comedian, the text would have been read differently. Indeed, different modes should be combined together for a better understanding of digital discourse which is getting multimodal more than ever before.

4.2.5. Multimodal Discourse

The first thing that can be noticed when entering the 'Blue World' is how multimodal communication is. Images, colours, emojis, scripts, languages, punctuation marks, and several other multimodal elements are combined together to deliver complex meanings that hold within deep socio-cultural dimensions. These elements are not randomly used, but rather they have systematic functions within discourse. In other words, the choice of specific elements and combining them is not random, as each element has its function. For that reason, understanding the overall discourse requires taking into account these elements as well as their functions. This raises questions as far as the use of linguistic varieties are concerned; are they used to fulfil the same functions like in face-to-face communication?

Actually, this is amongst the most important objectives of this research, which attempts to uncover whether the Algerian sociolinguistic situation is faithfully represented online. And since language online became a practice in itself, in addition to other usages, considering it in isolation from other elements would not give a fair and accurate explanation to the case under investigation, as digital discourse stands on the different inseparable components. For that reason, multimodal analysis is required.

In fact, people make use of the resources available online to express and represent themselves. That is to say, these digital and semiotic resources are employed in creative ways as strategies to construct meaning. Interestingly, these elements used in digital discourse have

systematic functions. Colours, images, caricatures, languages, scripts, etc. have specific functions each time they are used. Besides that, such usages say a lot about the identity of their users, since their age, gender, regional belonging, etc. can be inferred through these practices in spite of the anonymity and invisibility of users. Last but not least, analysis of content reveals that social norms, ideologies, and power relations are also transmitted to the virtual world because combinations of multimodal elements always carry hidden messages. The most regular patterns of multimodal texts are:

- In terms of form, multimodal texts entail a short descriptive expression that can be written in any of the languages used by the Algerians (Standard Arabic, Algerian Arabic, French, and English).
- This expression is generally written in the Arabic script if it is written in Standard Arabic or Algerian Arabic.
- There can be script-switching if there is code-switching (borrowed foreign words within statements written in Arabic are sometimes written in Latin script). Yet, these foreign words are sometimes written in the Arabic script.
- Sometimes, some words within expressions are written in a different colour. Red colour is used the most, in addition to other colours to a lesser extent.
- Images, caricatures, and photographs are omnipresent on Facebook communication, and they are generally inserted alongside descriptive expressions.

This section concentrates on documenting the main multimodal constituents of the Algerian communication on Facebook. Emphasis is particularly placed on linguistic practices alongside the use of semiotic resources in discourse in order to perform social practices. Accordingly, the images chosen have been organised to show the systematic functions of these usages. Three images have been randomly chosen and classified according to the themes to be tackled. In each case, the image is presented first and then followed by detailed analysis. Interestingly, the analysis draws on Kress and van Leeuwen's (2006) visual analysis that has been in turn influenced by Halliday's systematic functional linguistics.

Example 47: Script-Switching and Code-Switching



Such multimodal texts that are widespread on Facebook have specific structure, which is constantly repeated. They often contain a picture/photograph on the centre of the text and an introductory statement (narration of the idea) on the top. If characters in the photograph are speaking or thinking (monologue), their words/expressions are inserted either on the picture or at the bottom of the text. In this case, the use of linguistic varieties (Algerian Arabic and French), colours in which statements are written (black, red, and white), and the characters in the photograph is significant since each of them serves as a code that conveys a special meaning, i.e., they have a specific function within the overall discourse.

The introductory statement (the narration), written and then translated to English below, contains three major multimodal elements; code-switching, script-switching, and colours.

"كي تكون مع صاحبك يحكي في التليفون وتسمعو قال **moi aussi**"

"When you are with your friend and you hear him saying **me too"**

The use of Algerian Arabic represents the variety used by the character, who represents any Algerian in such a situation (an informal one), while the use of French represents the speech of the friend, the part heard by the main character. Switching from the Arabic script that represents the part written in Algerian Arabic to Latin script that represents the part written in French as well as switching from black colour to red may serve the same function, since they both represent the reported speech. The second statement, written on the photograph, refers to the expression uttered by the main character, when he heard his friend saying "moi aussi/[me too]".

آودي غير قلها نبغيك براك مالقوالب

Tell her I love you and stop making tricks

It is written in Algerian Arabic represented in the Arabic script and the colour used is white. That is to say, colours and scripts are used to highlight different language producers: the

narrator, the main character, and the friend. In addition, the use of white colour and the placement of the statement (right on the main character) is significant because it is supposed to be a thought that is not likely to be heard by the friend.

As for the use of the picture, it is placed in the centre of the text as the most salient element. Therefore, the information value of the text is from the centre (the photograph) because it occupies the largest space and it carries the idea itself, then to the written statements (beginning from top to bottom). Kress and van Leeuwen (2006: 196) believe in this respect that: *“for something to be presented as centre means that it is presented as the nucleus of the information to which all the other elements are in some sense subservient”*. In addition, the image in this case would be meaningless if the statement written in white has not been inserted. Hence, this statement links between the introductory one (on top of the text) and the image. Accordingly, the idea becomes clearer for the audience.

Apart from the multimodal elements used and their placement in the text, the choice of characters and the way they are represented in the picture play a crucial role in meaning construction as well as interpretation. The two characters seem to be outside in the street, like any Algerian friends who are supposed to meet outside not at home. The main character is placed nearer to the audience, he is staring straight, and his smile is a bit strange. While his friend is farther from him as well as from the audience, he is holding a mobile phone and bowing down his head. This behaviour gave the impression that he is talking to his girlfriend/wife, especially when he said: *“moi aussi”*. The personality of the friend (who is talking to his girlfriend in the mobile phone) is represented by Kermit the frog, a famous American Muppet character who embodies mainly an incompetent or foolish person.

The above mentioned multimodal elements, code-switching, script-switching, use of different colours, connections between these elements, and the use of Kermit the frog and his behaviour, all combined together communicate important social values and ideologies. In the same vein, Jones et al. (2015: n.p.) assume that discourse refers to the way people use various semiotic systems to build and manage their social worlds. So, discourse places an intimate relationship with social practices. They continue, *“on the one hand, all social practices are to some extent mediated through discourse – that is, discourse is used as a tool for performing social practices. And on the other hand, discourse plays an important role in maintaining, reproducing and transmitting social practices”*. In this case, switching to French and the

behaviour of Kermit, bowing his head, represent an important Algerian social norm: boys are not supposed to talk to their wives/girlfriends in front of others.

Besides, the use of Kermit the frog, a ridiculous person, to represent the friend is significant as well. Actually, this character always embodies a person with a naïve and foolish personality in Facebook usages. Hence, according to this text, relying on the personality of Kermit and his behaviour when he was talking to his girlfriend (bowing his head, speaking in a low voice and switching to French), men in the Algerian society are not supposed to express love to women, at least in public, as it is a sign of weakness and femininity that men should disclose themselves from. On this basis, switching to French, “moi aussi” and using red colour in writing it, might have another function in this discourse, which is mocking a man who expresses love and who is trying to not let others understand him because the main character declared that he has already understood the message, needless to hide.

Example 48: Use of French



As have been said above, languages, scripts, switching (between languages and scripts), colours, characters, and their placements all combined together constitute significant semiotic resources used by Facebook users to perform social practices. In this case, the introductory statement is written on top of the multimodal text, the variety used is Algerian Arabic, the script is Arabic, the colour used is black, and characters are written in bold.

كي يقولك باباك أقرالي ورقة و تكون بالفغونسي

When your father asks you to read for him a paper written in French

Below, an image, of Kermit the frog, sitting on a chair and reading a paper, is inserted. The three statements uttered by Kermit are placed on the photograph, near Kermit. So, the placement of every element is not random, since this structure is constantly repeated in such texts. In other words, like texts (in their traditional sense), multimodal texts also have specific structures (grammar) that govern their usages.

As far as the functions of linguistic items are concerned, the word "الفغونصي" in the introductory statement, is French word "Français" written in Arabic letters. This form of language use is widespread on Facebook writing spaces (private messaging, comments, and status updates). Writing French and English words in Arabic script is a new phenomenon if compared to Latinised Arabic. Actually, what is more significant in this word is the use of the allophone /ʁ/ <غ> to represent the French sound /kh/ <خ>. It is important to mention that the French sounds /ʁ/, /kh/, and /r/ <ر> are used as allophones, they do not change meaning when they substitute one another, in some cases. However, the word "Français" is either pronounced with /kh/ or /r/ and it is never pronounced in /ʁ/. Yet, in Facebook usages, such forms of language use are often found and they serve specific functions. So, the first thing that comes to the mind of anyone who reads the word written in this way, will directly know that there is something wrong with the use of French in the text. Therefore, this sound connects the introductory statement to the rest of the text.

The speech of Kermit incorporates several elements. He began first (when he was reading the paper written in French for his father), using some French words mixed with one Algerian Arabic word. The expression is written in Latin script (for both French as well as Arabic words) and in the white colour. This statement represents the part read by Kermit. It is clear that the statement is full of mistakes. These mistakes in fact are exaggerated to indicate that Kermit (who represents many Algerians with passive competence in French) is not competent in French. In addition, the use of Latin script tells the audience that the paper read by Kermit is originally written in French. Then, the second utterance of Kermit has been written in Arabic and the script is Arabic also.

هاد السطر ميهمش..

This line is not important ..

Code-switching and script switching in this case indicate that he is escaping reading the paper because he does not understand it, while white colour is still used because Kermit is still trying to read the paper. As for the use of two consecutive full stops, it is an indication that there are other things in the paper to be read but they are not.

Moving to the last statement, written in yellow, both of code-switching and script-switching are used.

قالوك أشري T-Max لوليدك خير من نقطعوك الضوء والماء

They told you, buy a T-Max to your son otherwise we cut electricity and water

Switching to yellow instead of white colour means that Kermit has stopped reading and he is giving a kind of a (fake) summary to his father. Code-switching and script-switching in this text have mainly linguistic functions; the whole statement is in Arabic except for the word T-Max, which has been written in French and in Latin script. According to Poplack (1980) model, this is an intra-sentential code-switching and according to Grosjean's (1982) classification, it is 'speech borrowing' because it has been borrowed as it is in its original form without any phonological or morphological adaptations. That is, Latin script is used because the word has not been integrated into the morphological system of the recipient language, unlike in the case of the word "الفغونصي", in the introductory statement, that is written in the Arabic script though it is originally a French word. Actually, most foreign words written in the Arabic script in Facebook usages are 'language borrowings', while the foreign words that are written in Latin script are 'speech borrowings'.

Continuing with the same statement, Kermit is lying at his father, and asking him to buy for him a T-Max, a motorcycle. This indicates first, that he is unable to read the paper; second, he could not admit his lack of competence in French; third, he is ceasing the opportunity to ask his father to buy for him what he wants. In addition, the use Kermit the frog to represent the son who is unable to read and understand French is significant. As has been mentioned previously, Kermit is used in Facebook to represent a foolish, and a ridiculous person. Indeed, a person who does not have competence in French is not well perceived in the Algerian society because French is still the language of prestige in the country.

The overall use of the different multimodal elements combined together in this text refer to important realities in the Algerian society. After independence, many Algerians were illiterates as a result of the French colonisation. French language, then, remained a *de facto* official language, in spite of all policies that aimed to displace it in favour of Arabic. That's why, French is still used in many official documents. Ironically, the younger generations, who have been Arabised, do not master French, the language of prestige, and they often find themselves in situations where they have to use it. Among the situations, for instance, illiterate parents ask their sons/daughters who are educated and who have little competence in French to read papers for them.

Example 49: Gender Stereotypes



The multimodal elements used in this text contribute to the maintenance and the transmission of the cultural-constructed gender stereotypes and the socially-attributed gender roles, reinforcing accordingly the traditional power and dominance relationship between males and females. The text contains an introductory statement on the top, it is written in yellow, and the variety used is Algerian Arabic.

كي تقولك كيفاش المنتخب فيه 11 لاعب وهذاك رقم 14 منين جاتو

When she tells you, since the football team has 11 players, from where that player has got number 14?

On the left side of the statement, on top of the text also, a jumper of the Algerian national team of football players that holds number 14 is inserted. Actually, this structure (inserting pictures and caricatures on the left side of statements written in Arabic) is also prevalent on Facebook multimodal texts. These pictures and caricatures identify and represent the idea of the statement (sometimes a short paragraph). Their placements (the statement on the right and the picture on the left) is due to the fact that writing Arabic begins from right to left, as if there is linearity between the statement and the inserted form.

This brings to mind Kress and van Leeuwen (2006)' *Reading Images: The Grammar of Visual Design*, which stands on the idea that even visual elements fulfil specific functions within discourse, like language, yet they do so in a rather different way from language. So, the image of the jumper inserted here has a textual function (according to Halliday's model) because it is mainly used to organise ideas and representations in a way that people make sense of. In other words, images used in Facebook communication are not random, but they are governed by their own grammar, which bears great similarities with the functions of words. That is, while reading Facebook multimodal texts, one must pay attention to every single element, since each of them carries a meaning.

Interestingly, the part that holds the lion's share of the text's idea as well as placement is a composed/photo-shopped image placed in the centre. On the right side, Tom (a famous character in children cartoon Tom and Jerry) is standing in the living room, opening the door of the kitchen, pointing by his left hand to the kitchen, and saying (the statement written in white colour in the bottom of the image):

مرحبا بك في مكانك الطبيعي

Welcome to your natural place

This statement is written in Standard Arabic, while the introductory one is in Algerian Arabic. Hence, there is a switching from the vernacular to the standard form, Bagui (2014) refers to such linguistic usages as diglossic code-switching. It is important to shed light on the function of switching from colloquial Arabic to Standard Arabic, or vice versa, since this linguistic practice is widespread on Facebook. So, moving from one variety to another is significant, in this case, it works as if it is stating the obvious; that the place of women is in the kitchen and they have nothing to do with football. In other words, switching carries a meaning of sarcasm and mockery.

Further, to the left of the image, there is an image of a kitchen that Tom is pointing to. What is also attractive in the picture is that the kitchen is given less space if compared to the living room. This can refer to the fact that in most Algerian houses, kitchens constitute small areas. However, with considering the overall ideas tackled by this multimodal discourse, the message grasped is that women (according to this text) occupy less space and importance than men do. In addition, and with reference to the topic discussed (football), this also may refer to the idea that women's mind is smaller than men's, that's why they are unable to understand some topics like men do and that's why they are supposed to occupy less space and importance.

Accordingly, all these elements combined together in a complex way communicate important ideologies associated to the Algerian society. The exaggerated mistake (about numbers of football team) attributed to females, alongside the reaction of Tom, who embodies an Algerian man, when he asked the girl to go to the kitchen instead of asking 'stupid' questions about topics that do not concern her, reinforce gender stereotypes about the division of labour. Hence, cultural assumptions about the specialisation of gender roles, with females being placed at home to take care of the children and the house, while males' role is to work outside and to take in charge more 'important' issues, unlike women, are transmitted to the virtual world.

In fact, the transmission of such stereotypes to Facebook will contribute to their spread, maintenance, and reinforcement in an unprecedented way. In this respect, Zahali (2017:45) assumes that such practices *“represented in such creative ways preserve the traditional stereotypes more than ever before as they are used for the first time in a written medium and they are exposed to a large audience”*. That is to say, in spite of the virtual nature of communication on Facebook, which is characterised by the invisibility and the anonymity of its participants, users’ behaviours online are largely controlled and shaped by their offline identities that are, undoubtedly, the product of cultural and social aspects. All these findings will be further investigated in the questionnaire results.

4.3. Questionnaire Findings and Discussion

This item presents the research findings obtained from the questionnaire. Six complementary sections will be considered below: 1) background information, 2) script choice and practices on Facebook, 3) factors behind maintaining Latinised Arabic, 4) language choice on Facebook, 5) linguistic practices on Facebook, and 6) people’s attitudes towards the impact of Facebook on languages in Algeria.

4.3.1. Background Information

Language use is primarily determined by the social identity of the user. Six variables have been chosen in this research because the researcher observed considerable variations in linguistic practices on Facebook amongst users due to their age, gender, regional belonging, ethnicity, occupation, and educational level, among others. These variations will be exhibited throughout the subsequent sections of the questionnaire analysis. Shedding light on such information will contribute not only to a better understanding of language use in one of the digital environments of communication, but it is also an important key that may lead us to understand whether these findings are consistent with traditional findings about the relation of these variables with language use. Such data are necessary especially because many think that as a result of the anonymous nature of online communication such variations have been blurred and figuring them out would be difficult, because people may get rid of conventions in order to hide their identities. Accordingly, these results play a great role in answering the main research question, which seeks to study the Algerian sociolinguistic situation on Facebook. In other words, results will indicate the extent to which traditional findings about language use are

reflected in the digital environments. The table below sums up all categories of the questionnaire respondents.

Table 7: Background Information about Participants of the Questionnaire

Variables	Category	Frequency	Percentage
1- Age	a- less than 20 years old	41	16.9%
	b- from 21 to 25 years old	89	36.6%
	c- from 26 to 30 years old	48	19.8%
	d- from 31 to 40 years old	39	16.0%
	e- more than 40 years old	26	10.7%
2- Gender	a- males	100	41.2%
	b- females	143	58.8%
3- Regional belonging	a- east	55	22.6%
	b- centre	122	50.2%
	c- west	34	14.0%
	d- south	32	13.2%
4- Educational level	a- primary	1	0.4%
	b- mediate	15	6.2%
	c- secondary	37	15.2%
	d- university	151	62.1%
	e- post-graduation	39	16.0%
5- Occupation	a- employed	80	32.9%
	b- unemployed	22	9.1%
	c- student	116	47.7%
	d- a free job	16	6.6%
	e- pre-employability	9	3.7%
6- The device used for Facebook connection	a- computer	75	24.9%
	b- mobile phone	210	69.8%
	c- tablet	16	5.3%
7- Daily average of Facebook usage	a- less than one hour	35	14.4%
	b- about two hours	91	37.4%
	c- more than three hours	117	48.1%

*The table includes frequencies and percentages of the different categories of the total (243) questionnaire respondents; including their age, gender, regional belonging, educational level, occupation, the device used, and the daily average of Facebook usage.

These background data constitute the platform on which the other parts of the questionnaire stand, as most statements will be analysed in correlation to these variables. Considerable differences have been found across age, gender, regional belonging, educational level, and ethnic groups. This goes in tune with previous offline as well as online findings.

The researcher also attempted to check what are the dominant social categories on Facebook, as it is no longer restricted to techno-literates, young people, males, and northern

regions due to the wide adoption of the technology by different social groups who were excluded in the beginning of its advent. However, with recent facilities such as affordable smartphones, their small size, wireless internet access, ease of use, seducing multi-services provided, integration of several languages (particularly Arabic), more and more categories are represented online. Actually, the overwhelming majority (69.8%) of respondents use smartphones for Facebook connection. According to the questionnaire findings, the majority are aged between 21 to 25 years old (36.6%) and most respondents are students (47.7%). In addition, most of them have a university degree (62.1%).

However, even people who are more than 40 years old use Facebook, in this research this category constitutes 10.7% of the participants. Besides that, people with little education also use Facebook (21.8% of respondents do not have a university degree). Another social group that was almost excluded from Internet as well as Facebook connection is the Algerian community living in the South as Internet penetration rates were concentrated in northern Algerian areas. 13.2% of respondents are from the south. Accordingly, penetration rates of old people, people with little education, in addition to Algerians living in the south are raising as a result of the aforementioned factors.

Interestingly, Females were always thought to be victims of digital divide especially in Muslim communities. Female respondents, however, exceed males in this research, representing 58.8% and 41.2% respectively. This finding may have several interpretations. Women are not deprived from the use of social media, Facebook in particular, in a male-dominated community. Facebook services play a great role in attracting more and more female representation, such affordances include the different communication possibilities (instant messaging, comments, and status updates) which meet the social nature of females. Moreover, as a result of socialising Facebook and adapting it to local cultural needs in addition to regular Facebook updates, females (either educated or not, employed or not, single or housewives, young or old) find it not only amusing and entertaining but useful as well. For instance, Facebook groups and pages, which are recent updates if compared to profiles and instant messaging, encourage women-only participation. Such women-only groups and pages deal with several topics like cooking, beauty, fashion, family issues, etc. Besides, women are said to capture the highest rates of education and employment that require Internet access. All these factors and others led to women representation online ending up in great social changes.

In a nutshell, Facebook, one of the digital environments of communication, is attracting all portions of the Algerian society and it is no longer restricted to a specific category. More important than that, the time spent on Facebook on a daily basis raises several questions as far as the impact of this social networking site on social, cultural, political, economic, and linguistic characteristics of the Algerian society. According to the statistics of Facebook usage by respondents of the research beforehand, 48.1% use Facebook more than three hours per a day, 37.4% spend about two hours on Facebook, and only 14.4% spend less than one hour. In other words, Facebook constitutes an undeniable part of the daily social practices of the Algerians. So, it is of a paramount importance to investigate the linguistic practices of the Algerians on this site in order to know whether or not the characteristics of the Algerian sociolinguistic situation are preserved on the digital environments of communication. Amongst the most widely discussed topics about language use online is script choice and practices due to the digital nature of communication.

4.3.2. Script Choice and Practices

Both of Arabic and Berber, national and official languages of Algeria, do not belong to the Indo-European languages and they traditionally required non-Latin scripts. Speakers of these languages were obliged to use European languages (mainly English) to access the Internet by the beginning of its advent (Tagg, 2015). Short after that, Latinised-scripted writings emerged in order to overcome the constraints of the technology (Palfreyman and Al-khalil, 2003; Aboelezz, 2009; Gordon, 2011; Tagg, 2015). Another important feature of the two languages is the fact that the former is diglossic (the use of Standard Arabic is restricted to very few domains if compared to the usages of Algerian Arabic) and the latter has only recently been given an official status in the country (in 2016). That is to say, people find themselves in a situation where they have to use a vernacular (which is not codified) in a text-based medium due to the fact that communication on social networking sites is most of the time informal and it is predominantly text-based. However, the use of these vernaculars was Latinised because Internet was based on the Latin writing system.

This phenomenon has attracted the attention of scholars as well as common people and has received fierce criticism since it has been considered as a linguistic ruin. For the case of Arabic, Latinised Arabic was dominant among Arabic speaking communities even after the introduction of the Arabic writing system to the technology. Many researchers tried to understand what are the factors that led to the maintenance of this script. As far as the Algerian

case is concerned, I have observed that there has been a gradual shift towards the use of the Arabic script amongst Arabic speaking community in Algeria in the recent few years. In public and semi-public communication on Facebook (comments and status updates), Arabic sometimes is more dominant, except in some groups of university students and the case of Kabyle people who often use Latinised Arabic. For that reason, question four in the questionnaire (see appendix 2) aims particularly to check whether or not there is a shift towards the use of the Arabic script instead of Latinised script in writing the Arabic language. Other topics related to script choice are also tackled in this research: 1) script choice, 2) script chosen by Berber respondents, 3) use of numerals in Latinised Arabic, 4) script-switching, 5) script-fusing, and 6) the use of Arabic script to represent French and English words and expressions.

4.3.2.1. Script Choice in Writing Arabic

In order to know what is the script used by the respondents in writing Arabic, three choices have been provided: a) Arabic, b) Latin, or c) both of them.

Table 8: Results of the Research Respondents' Script Choice

	Arabic Script	Latin Script	Both Scripts	Total
Frequency	67	68	108	243
Percentage	27.57%	27.98%	44.44%	100%

*The table reveals respondents' script choice in Facebook writing spaces when they write in Arabic. It represents answers to question 4: *"what is the script you use to write Arabic or Berber?"*

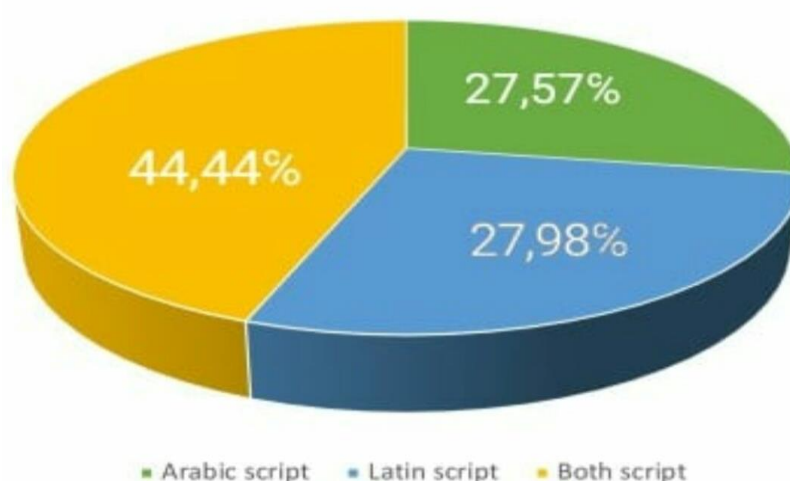


Figure 1: Representation of the Respondents' Script-Choice Results

Results reveal that the majority (44.44%) use both scripts in their Facebook communications, 27.98% use Latin script, and 27.57% use the Arabic script. That is to say,

Latin script is no longer dominant in the Algerian Facebook usages. In a previous research, Zahali (2013: 95) found that the majority (59%) use Latin script, 23% use both of Arabic and Latin scripts, and only 18% use the Arabic script. Hence, these results indicate that there is a significant shift towards the use of the Arabic script in Algeria. This may have several possible explanations.

First, Arabisation, an education policy implemented in Algeria since 1970s, can be one of the factors behind this shift as the older generations who used to master French are being replaced by new generations who have been Arabised and who are the ones who use Facebook the most as they constitute the younger generation. Today, most Algerians master Arabic more than French though they still code-switch between the two. Second, one of the reasons why Algerians used to use Latinised Arabic is due to the huge amounts of code-switching, mixing, and borrowing and people found that the use of Latin script is more adequate (ibid). However, this is no longer an obstacle for them since people have developed an alternative solution and got acquainted with this new phenomenon, which is writing these foreign words in the Arabic script (see section 4.3.2.6. below). Third, with the development of Facebook services such as groups and pages, many online communities which join together people from the different Arabic-speaking world became widespread. As a result, Algerians often accommodate to the style of the others who find difficulties understanding Latinised Algerian Arabic. This is especially the case of people from the Middle East. Last but not least, the recent and regular technological developments coupled with the availability of cheap and affordable devices that are easy to use and suit all social categories, including people with little education and old people, also play a great role in the spread of the use of the Arabic script instead of Latinised Arabic. So, this has led to more adoption of the technology which was mainly monopolized by young educated people (techno-literates).

Statistics reveal significant differences in script choice across age, gender, and region groups, while educational level does not have a great impact on the script selected by respondents for their online writings (see appendix 4). As for the age groups, the youngest respondents are the more they use Latin script and the oldest they are, the more they use the Arabic script (see table 37 appendix 4). This result goes in tune with Androutsopoulos (2006) who assumes that spoken language features are widely used by young people, bearing in mind that Latinised Arabic is a transliteration of spoken Algerian Arabic. The major factor that may explain this phenomenon is that the differences between the older and the young generations

have been reflected in their linguistic behaviours online. In this respect, Prensky (2001 cited in Barton and Lee, 2013) distinguishes between ‘digital immigrants’ and ‘digital natives’. The former refers to the older people who were brought up on traditional means of communication and have had to cope with the new technological developments. The latter, however, represents the young people who were brought up hand in hand with these technologies.

Males and females exhibit great differences in script choice on Facebook (see table 38 appendix 4). According to the findings of the research beforehand, Arabic script is used by men (39.0%) more than women (19.6%), while Latin script is used by women (32.9%) more than men (21.0%). This is consistent with previous research findings which indicate that women tend to use prestigious speech forms whereas men use casual styles. Actually, Latin script was considered to be more prestigious than the Arabic script as the former is associated with the language of prestige in Algeria, French. According to the relevant literature that attempted to explain women choice of prestigious speech forms, females use language as a resource to enhance their social position because they are deprived from power in society (Eckert, 1990; Romain, 2003; Lakoff, 2003). This might be applicable in the digital environments of communication, particularly Facebook in Algeria, as this is most of the times an unconscious process. Hence, in spite of the anonymous nature of digital communication, gender identity is reflected on people’s linguistic choices, including script choice.

Region has always played a role in shaping language use and it is high time to investigate the extent to which this is reflected online. It is of a paramount importance to see whether linguistic features converge as they go online or they preserve their divergence especially in a context which is as rich as the Algerian linguistic landscape that is primarily identified by its various regional linguistic variations. Results of the questionnaire as far as script choice is concerned indicate considerable variations across the different regions (see table 39 appendix 4). Statistics indicate that the highest rates of the use of Arabic script are captured by people from the south (62.5%). As for the use of LA, no one from the south use only Latin script and only 5.9% of respondents from the west use Latin script. People in the centre seem to use LA more than the other regions, constituting 47.5% of the respondents from central Algeria. Comparing results of script choice by region of this research with previous findings of Zahali (2013: 146) shows clearly the shift towards the use of the Arabic language since rates have completely changed (see appendix 5), except for the case of the centre, where the use of Latin

script is still maintained. Script choice by the Berber community in Algeria is also an interesting topic to investigate due to its controversy.

4.3.2.2. Script Choice by Berber People

As stated in the first chapter, due to historical and political factors, the different varieties of Berber in Algeria have three scripts: Tifinagh, Latin, and Arabic, people's choice depends primarily on their affinity (Al Aissani, 2001; Sayahi, 2014; Ennaji, 2005). While Latin script is mainly used by Kabyles, Arabic script is often used by the other three Berber groups. Tifinagh, however, has very limited usages. According to the aims of this research, it is crucial to investigate whether script choice online is a continuation to the offline conventions or that digital communication is leading to radical changes. Out of the four major Berber communities in Algeria, only two groups are represented, Kabyles and Chaouia ⁽³⁾.

Table 9: Results of Script Choice by the Berbers

Berbers	Kabyle		Bouira		Chaouia		Total	
	F	%	F	%	F	%	F	%
Arabic	0	0.0	0	0%	3	25%	3	6%
Latin	20	69%	7	77.8%	4	33.3%	31	62%
Both of them	9	31%	2	22.2%	5	41.7%	16	32%
Total	29	58%	9	24%	12	18%	50	100%

*The table presents script choice by Berber respondents. Two major groups have participated in the research the Kabyles and Chaouia. Results of respondents from Bouira have been presented in an independent column though they belong to the Kabyle group because according to the researcher observations and informal interviews, considerable features differentiate them.



Figure 2: Representation of the Berbers' Script-Choice Results

As indicated in the table above, the Berber people still maintain the use of Latin script (62%), while only 6% use the Arabic script. For the Berber community in Algeria, Latinised-scripted writing is not the outcome of technology but rather it preceded the introduction of digital communication. Berber people experienced bilingualism since ancient times as a result of the occupations of several civilisations that settled in North Africa. As far as the Berber script is concerned, the language has an indigenous writing system, yet it was seldom used and it remained spoken throughout history. With the Islamisation of the area, the Arabic script was used to represent the Berber language for administrative purposes (Benabdi, 1980). After the French colonisation to Algeria, Latinised writings of Berber emerged and maintained later, mainly as a result of the French policy ‘divide to rule’. This policy has succeeded to a great extent and its results are still salient. Actually the maintenance of the use of Latin script to represent both of Berber and Arabic by the Berber people even in their online usages can be an evidence for this claim. However, other factors may play important roles for the persistence of this phenomenon. For instance, French is still the language of modernity and prestige in Algeria and most Kabyle people were brought up with a French education.

Another significant result is that Chaouias use Arabic script (33.3%) more than Latin (25%). This has been expected since they used the Arabic script in their writings even before online usages. Such a phenomenon has a historical background, as eastern Algeria, which has been inhabited mainly by the Chaouia people in the Auores region, has been the first to be Islamised and the French policy ‘divide to rule’ did not target Chaouias, or at least it did not succeed with them. So, their leaning towards Arabic has been maintained and transmitted then to the digital world. Yet, like all other Algerian communities, Chaouia people use both of Arabic and Latin scripts in their digital communication. Interestingly, numerals are still widely used to represent some Arabic sounds that are not represented in Latinised Arabic.

4.3.2.3. Use of Numerals in Latinised Arabic

As has been explained in the literature review (see item 2.9.1.1.), some numerals have been employed within Latinised Arabic as substitutes to the Arabic sounds that do not have equivalents in Latin script (Palfreyman and Al-khalil, 2003; Aboelezz, 2009; Gordon, 2011; Tagg, 2015). The research before hands attempts to investigate whether this phenomenon still exists or other realisations of these sounds have emerged in the Algerian usages of LA. Six Arabic sounds that are not represented in Latin script have been provided in the research questionnaire (see question 5 in appendix 1) in order to know how respondents represent them

in their text-based communication on Facebook. As expected, results reveal that every Arabic sound has many realisations. This indicates the idiosyncratic character of language use on Facebook on the one hand and the non-standard feature of the writing system of online communication, on the other.

i. Representations of the Arabic Sound /ق/ in LA

The following table reveals respondents' results as far as the representation of the Arabic sound /ق/ in LA is concerned. They were asked in question 5: *In case you use Latin script to write in Arabic, how do you write the following letters: [ح], [خ], [ع], [غ], [ق], [ء] ?*

Table 10: Results of Respondents' Representations of the Arabic Sound /ق/ in LA

Representations of the Arabic sound /ق/ in LA	9	A	KA	K	G	C	Q	Total
Frequency	111	5	2	74	5	1	12	210
Percentage	52.85%	2.38%	0.95%	35.23%	2.38%	0.47%	5.71%	100%

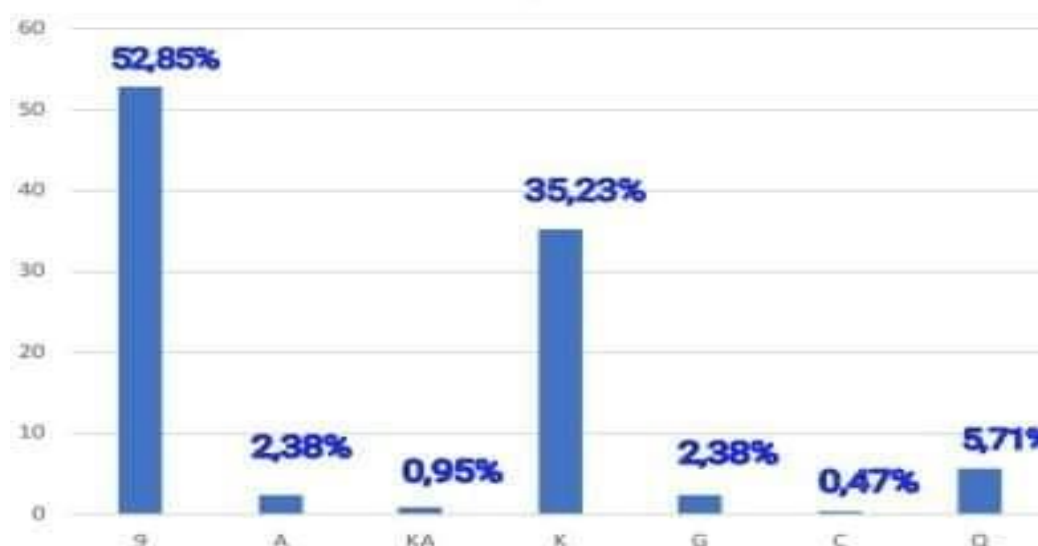


Figure 3: Respondents' Representations of the Arabic Sound /ق/ in LA

Indeed, results exhibit that the majority of the research respondents (52.85%) use the number “9” to represent the Arabic sound /ق/ in LA. 35.23% use the letter “K”, followed by 5.71% of respondents who use the letter “Q” to represent the Arabic sound /ق/. The letters “K” and “Q” are also used because they are approximations of the sound /ق/ in French, since they are used in standard writings to represent this sound. Phonetically speaking, the letters “G” and “A” are considered as allophones of the phoneme <ق> (its alternative pronunciations) because they are sounds from the same language (Arabic), they often occur within the same phonetic environment (the same place within a word), and they can replace one another without changing

meaning. That is, they are different optional forms of the same phoneme. Such free variations of phonemes are omnipresent in the Algerian usages of Arabic due mainly to the numerous regional dialects of the country.

It should be noted also that there is a gradual shift towards the use of the number “9” instead of the letter “K” because in a previous research, the use of the latter outnumbered the former, constituting 45% and 55% respectively (Zahali, 2013: 96). This might have a strong link with gradual shift towards the use of the Arabic script at the expense of LA, which was dominant for a relatively long time since its emergence in spite of the availability of the Arabic script (see more details in item 4.3.2.1. above).

Considerable gender differences (see table 41 appendix 6) have been observed in the way this sound is represented on Facebook. While women exceed men in the use of the number “9” men exceed women in the use of the letter “K”. In addition, only women use the letter “A” and the majority of respondents who use the letter “Q” are also women. This confirms, once again, previous research findings that assume that women tend to use the most prestigious speech forms while men use the most casual ones.

Even region plays a role in the choice (see table 42 appendix 6). To begin with, the clearest result, according to the statistics, is that people in south Algeria are the ones who use the number “9” the less to represent the sound <ق> and they use the letter “K” the most. This is mainly because almost all southern regional dialects do not have this variant, they pronounce it /g/ instead. People in central Algeria capture the highest rates of using the number “9” (56.4%), a thing that has been expected since this reflects offline distribution of dialects. Interestingly, if compared to responses from the east (25.5%) and the centre (32.5%), responses from the west to the use of the letter “K” are higher (43.3%). In a previous research, Zahali (2013) found that people from the centre and the west use this letter the most. So, people from the west seem to maintain the use of the letter “K” in spite of the shift towards the use of the number “9”.

The educational level also seems to have a significant impact on people’s choice (see table 43 appendix 6). Statistics reveal that the less educated respondents are the more they use the number “9” to represent the sound <ق> and the more educated they are the more they use the letter “K”. Besides, the letter “Q” is only used by people who have a university degree and post-graduates. This can be due to the fact that both letters “K” and “Q” are associated with the French language, which is tied with education in Algeria.

ii. Representations of the Arabic Sound /ɛ/ in LA

Results of the representations of the Arabic sound /ɛ/ are shown in the following table:

Table 11: Results of Respondents' Representations of the Arabic Sound /ɛ/ in LA

Representations of the Arabic sound /ɛ/ in LA	A	3	AA	Total
Frequency	51	146	11	208
Percentage	24.51%	70.19%	5.28%	100%

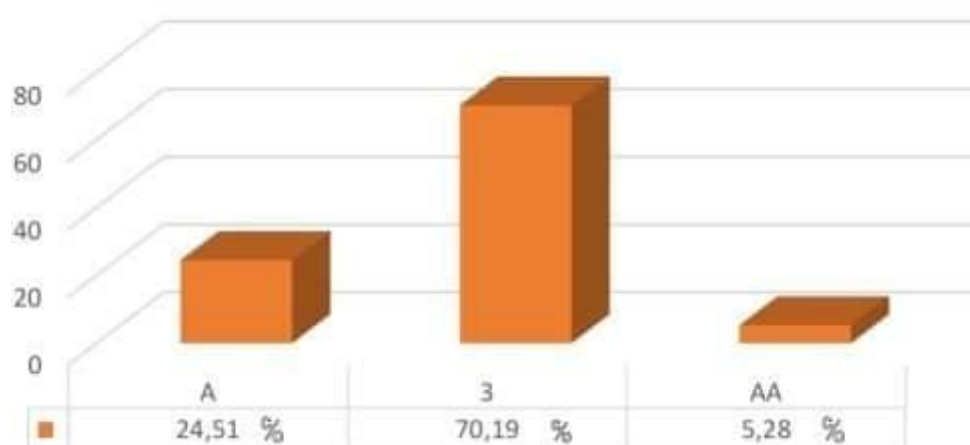


Figure 4: Respondents' Representations of the Arabic Sound /ɛ/ in LA

Results show that the Arabic sound /ɛ/ is represented in three different ways in LA on Facebook : “A” (24.51%), “3” (70.19%), and “AA” (5.28%). So, the overwhelming majority of respondents use a numeral to represent the sound. Zahali (2013: 99) also found that the majority used the number “3”; i.e. this usage is still maintained by the Algerians on Facebook. The use of “A” and “AA” is related to the French language, the language which still monopolises domains of prestige and education in Algeria in spite of the many recent reforms that go in favour of English. This point to the fact that, though there is a remarkable shift towards the Arabic script on Facebook, LA is still maintained (see item 4.3.3. below).

Statistics indicate that education really plays a role in determining the choice in this case (see table 44 appendix 7). People with a university degree use the letter “A” more than those of mediate and secondary levels and they use the numeral “3” less. As has been said before, French is associated with education and prestige in Algeria. That is, such findings are not surprising.

iii. Representations of the Arabic Sound /ġ/ in LA

Results obtained from the questionnaire respondents to this item are represented in the table below:

Table 12: Results of the Respondents' Representations of the Arabic Sound /ġ/ in LA

Representations of the Arabic sound /ġ/ in LA	G	GH	GHA	GA	5	R	Total
Frequency	10	163	4	2	2	11	192
Percentage	5.20%	84.89%	2.08%	1.04%	1.04%	5.72%	100%



Figure 5: Respondents' Representations of the Arabic Sound /ġ/ in LA

As shown in the table, the overwhelming majority of respondents use the letters “GH” to represent the Arabic sound /ġ/ in their text-based communication on Facebook when they use LA. In fact, this is the standard way of writing this Arabic sound in French, as many Arabic proper names include this sound and they are officially typed in this way. That is, the problem is already solved and they do not have to find an alternative to the Arabic sound which is not represented in Latin script, unlike other sounds. In spite of this, others use other forms to represent this sound (like: “G”, “GHA”, “GA”, “5”, and “R”), yet they are not numerous. These results are so similar to Zahali (2013: 99), i.e. this usage is still maintained.

As far as regional differences in the representation of the Arabic sound in LA on Facebook is concerned (see table 46 appendix 8), only one interesting result has been observed since in all four regional groups the use of “GH” is dominant. The letter “R” to represent this sound is only used by respondents from the central area. The use of this letter is directly tied to the French language, which is mostly used by people from central Algeria (see item vi. in 4.3.4.1. below) due mainly to historical reasons. In addition, education also influences the

representation of this sound on Facebook (see table 47 appendix 8), as results reveal that people with high education capture the highest rates in using “GH” to represent the sound /ġ/.

Gender also has a significant link with people’s choice of these linguistic variants (see table 48 appendix 8). Both of males and females use “GH”, yet females’ rates exceed males’. In addition, while 10% of males use “G” to represent /ġ/ in LA (that is only used by 2.5% of females), 7.4% of females use “R” (which is only used by 2.9% of males). This has to do with females’ tendency to use prestigious speech forms, whereas males prefer the use of casual forms since they often distance themselves from feminine speech.

iv. Representations of the Arabic Sound /ġ/ in LA

According to the questionnaire results, the Arabic sound /ġ/ is represented in three different ways in LA in Facebook by the Algerians. Statistics are shown in the following table:

Table 13: Results of the Respondents’ Representations of the Arabic Sound /ġ/ in LA

Representations of the Arabic sound /ġ/ in LA	KH	5	K	Total
Frequency	162	32	7	201
Percentage	80.59%	15.92%	3.48%	100%

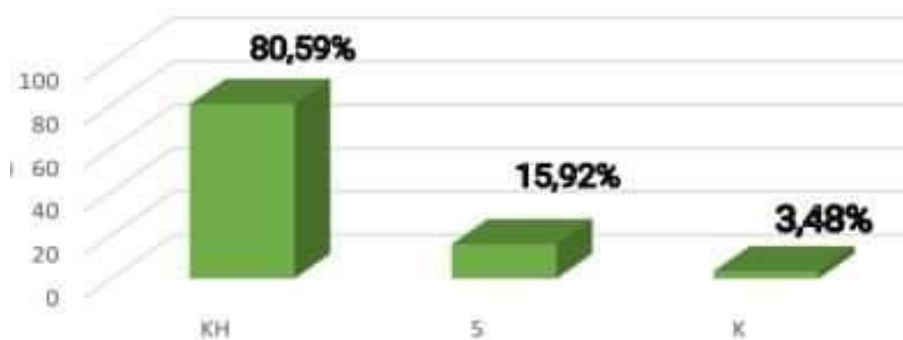


Figure 6: Respondents’ Representations of the Arabic Sound /ġ/ in LA

Questionnaire results show that the majority of respondents (80.59%) use “KH” to represent the sound /ġ/, 15.92% use the numeral “5”, and only 3.48% use the letter “K”. Similar to the representation of the Arabic sound /ġ/, the sound /ġ/ already has a standard version used in the French language. This what might explain why do people use “KH” more than the numeral “5”. Comparing these results to the previous results of Zahali (2013:98) show that there has been no big difference since then in the representation of this sound; i.e. people seem to maintain using “KH” instead of the numeral “5”.

Gender seem to have little influence on people's representations of the Arabic sound /خ/ on Facebook (see table 49 appendix 9), since there are big approximations between males' and females' rates. 81.3% of females and 79.5% of males use "KH". 15.6% of females and 16.4% of males use the number "5". So, females are a little more than males in the use of "KH", which is associated with French language, while males exceed females in the use of "5", which is associated with the Arabic language. Hence, though there is a small difference between them in the representation of this sound, women's tendency to use standard speech forms and men's preference of casual forms are salient in the statistics above.

As for the impact of the regional belonging of respondents on their choice, people from the west capture the highest rates of using "KH", while people from the south use the numeral "5" more than the others (see table 50 appendix 9). That is, they still maintain their choice since in the previous finding of Zahali (2013: 98) they were also dominant in these usages. Interestingly, people from the west of Algeria tend to use the French version of the Arabic sounds /ع/, (see table 45 appendix 7), /غ/ (see table 46 appendix 8), and /خ/ (see table 50 appendix 9) more than the others.

Respondents' educational level has a clear influence on people's representation of the sound /خ/ in LA (see table 51 appendix 9). The more educated respondents are the more they use "KH" and the less they are the more they use the number "5" to represent this sound in Facebook. This is so similar to the representation of the sounds /ق/ (see table 43 appendix 6), /ع/ (see table 44 appendix 7) and /غ/ (see table 47 appendix 8), since people with less education use numerals more than educated ones, while educated respondents use the French version of these Arabic sounds. As has been said before, French language in Algeria is associated with education and prestige; i.e. the use of such linguistic variants represent people's identities (education in this case).

v. Representations of the Arabic Sound /خ/ in LA

The Arabic sound /خ/ is represented in three different ways by the research respondents. Results are revealed in the table below:

Table 14: Results of the Respondents' Representations of the Arabic Sound /خ/ in LA

Representations of the Arabic sound / خ/ in LA	7	H	HA	Total
Frequency	74	130	5	209
Percentage	35.40%	62.20%	2.39%	100%

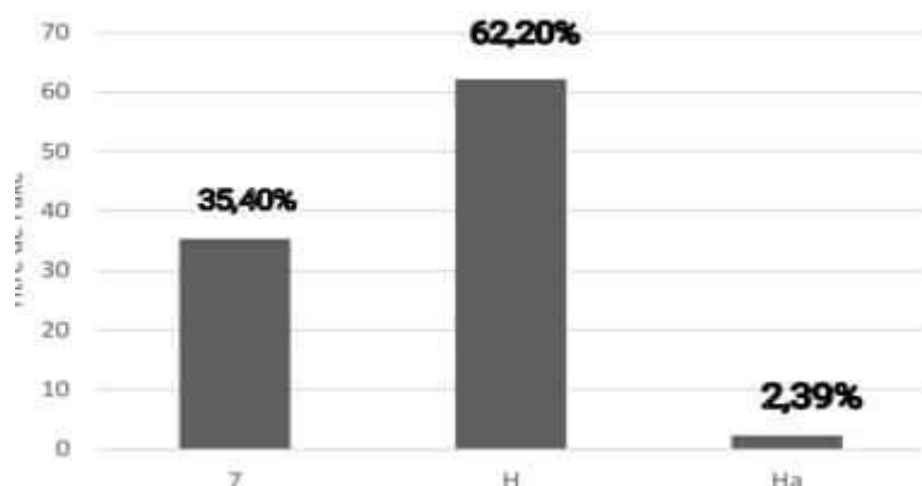


Figure 7: Respondents' Representations of the Arabic Sound /ح/ in LA

Questionnaire findings show that the majority of respondents (62.20%) use the letter “H” to represent the sound /ح/ in LA, 35.40% use the numeral “7”, and only 2.39% use “HA”. Hence the use of the numeral is not dominant in this case, like the sounds /غ/ and /خ/ above, due to the impact of French language and education. In the previous research of Zahali (2013: 97), the use of the letter “H” to represent this sound also was dominant.

Statistics show little influence of gender in the representation of this sound in LA, as very slight differences have been exhibited in the use of the letter “H”, while no difference at all have been found in the use of the numeral “7” (see table 52 appendix 10). As for regional differences, people from the east and centre use the numeral “7” more than those from the west and the south, who in turn use the letter “H” more than the formers (see table 53 appendix 10).

Education seem to be the most important factor that influences people’s choice in this case as well, since results reveal that the more educated respondents are the more they use the Latin letter “H” to represent this Arabic sound and the less they are the more they use the Arabic numeral “7” (see table 54 appendix 10). This finding is so similar to the results of the representations of the abovementioned sounds /غ/ and /خ/ because educated people are more influenced by the French language and this is reflected in their use of Latin letters instead of Arabic numerals.

vi. Representations of the Arabic Sound /ع/ in LA

The Arabic glottal stop /ع/ is represented in six different ways in LA on Facebook by the research respondents, see the following table:

Table 15: Results of the Respondents’ Representations of the Arabic Sound /ʕ/ in LA

Representations of the Arabic sound /ʕ/ in LA	AA	A	H	E	2	1	Total
Frequency	6	132	3	18	41	3	203
Percentage	2.95%	65.02%	1.47%	8.86%	20.19%	1.47%	100%

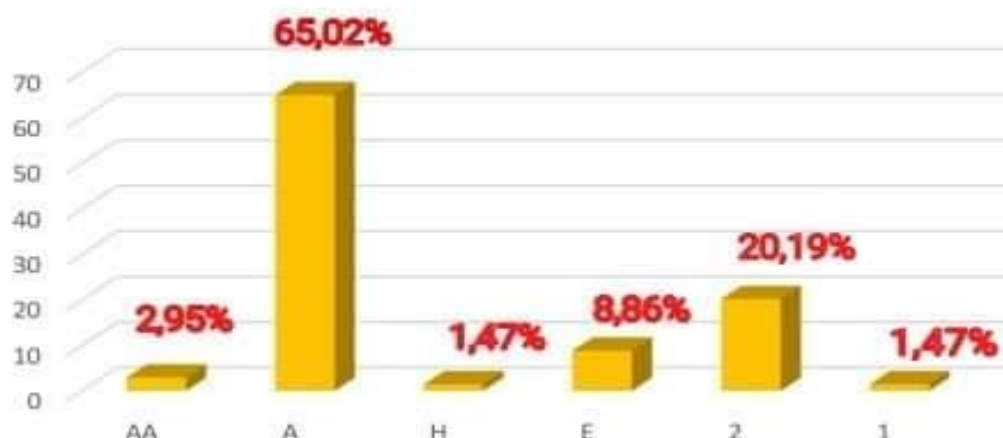


Figure 8: Respondents’ Representations of the Arabic Sound /ʕ/ in LA

Results show that the majority of respondents (65.02%) use the Latin letter “A” to represent the Arabic sound /ʕ/ in LA. The numerals “2” and “1” are used by 20.19% and 1.47% of respondents respectively. This is also due to the impact of French in Algeria.

According to the statistics, males use the letter “A” more than females do and females use the numeral “2” more than males do (see table 56 appendix 11). As for the impact of region, the majority of people from the south and the centre use the letter “A”, while people from the west use the letters “A” and “E” equally, 41.4% of respondents for each (see table 57 appendix 11).

4.3.2.4. Script-Switching

Results about script choice indicate that most respondents use both of Arabic and Latin scripts (44.44%) instead of using only one of them ⁽⁴⁾. That is to say, switching between scripts is widely present in the Algerian scriptural practices on Facebook. As has been explained previously, these results can be considered as a shift towards the use of Arabic script since few years ago the use of Latinised Arabic was dominant. However, Latin-scripted writings are still maintained by some categories of the Algerian society mainly young people under the age of 25, females, and Kabyle Berbers.

Statement 13 in question 8 of the questionnaire attempts to investigate the extent to which respondents switch between Arabic and Latin scripts in the different writing spaces on Facebook. Their answers are as follows:

Table 16: Results of the Respondents' Script-Switching

	Never	Rarely	Sometimes	Generally	Always	Total
Frequency	58	55	61	23	18	242
Percentage	35.1%	22.7%	25.2%	9.5%	7.4%	100%

*This table presents respondents' answers to statement 13 of question 8 of the questionnaire, *"I use both Arabic and Latin scripts in conversations in private, comments, or posts. For example, I start writing in Arabic script then I use Latin script, and then I use again Arabic script"*.

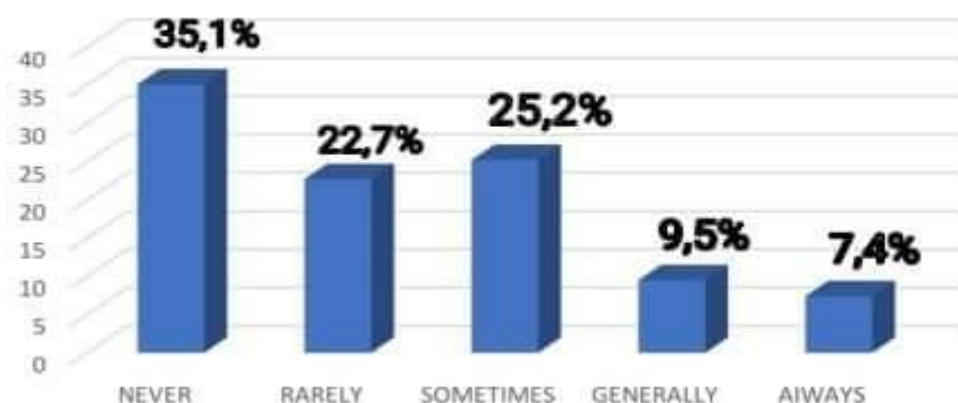


Figure 9: Representation of the Respondents' Script-Switching Results

Results reveal that most research participants (57.8%) prefer to use either script instead of switching between them in comments, status updates, and in private messaging ⁽⁵⁾. In addition, little differences have been found across the different age as well as education groups. However, significant gender and regional variations have been observed, as females seem to switch less (62.3% never or rarely switch) than males do (51.5% never or rarely switch) and people from the east (52.8% never or rarely switch) and the west (38.2%) switch more than people from the centre (61.9%) and the south (71.9%) (see details in tables 57 and 58 in appendix 12). The fact that most people in the centre use Latin script and most people in the south use the Arabic script (see table 39 appendix 4) can be a possible explanation for regional differences in script-switching, as they both (people from the centre as well as the south) prefer to use either Latin or Arabic script instead of switching between them.

4.3.2.5. Script-Fusing

People do not only switch between Arabic and Latin scripts inter- and intra-sententially, but they also employ the two scripts within words. This phenomenon is referred to as script-fusing, “an act of combining letters from at least two scripts within a single word”, (Panovic (2018: 73). Script fusing is used mainly in comments in Algerian Arabic via the use of the Arabic script. Some people switch within a single word for some European sounds that are not represented in SA such as: /v/ and /g/ (see example/figure 19 in item 4.2.2.2.). Actually, script-fusing is not widely used by the Algerians if compared to script-switching, and this has been clear through the results of item 14 in question 8 of the questionnaire, as the following table indicates.

Table 17: Results of the Respondents’ Script-Fusing

	Never	Rarely	Sometimes	Generally	Always	Total
Frequency	164	28	22	11	16	241
Percentage	68%	11.6%	9.1%	4.6%	6.6%	100%

*This table presents respondents’ answers to item 14 in question 8 of the questionnaire, “I mix between Arabic and Latin scripts in the same word like in *انجليزية*”.

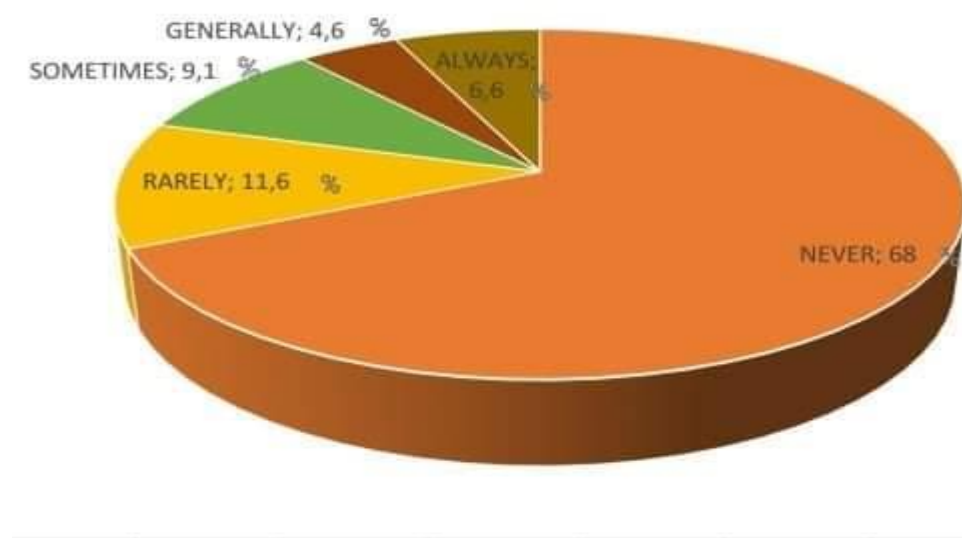


Figure 10: Representation of the Respondents’ Script-Fusing Results

In addition, results indicate also that the youngest the respondents are, the more they fuse scripts and the less they are educated the more they fuse (see tables 61 and 64 respectively appendix 13). Usually, adults pay more attention to standards, while younger people are most of time non-conformists. Such a revolutionary linguistic feature is used unconsciously as a linguistic resource to break established conventions, unlike older people. Educated people also

tend to respect linguistic norms, unlike people with little education. Besides that, males fuse scripts more than females do, 12.1% of males always fuse if compared to only 2.8% of females' fusion (see table 62 appendix 13). This can be explained by the fact that women already use Latinised Arabic more than Arabic script, more than men do. Last but not least, regional differences in script-fusing are also salient (see table 63 appendix 13). 74.2% of respondents from the centre never fuse Arabic and Latin scripts, this can be due to the fact that the majority use Latinised Arabic (47.5%). No one from the south fuse between the two scripts, bearing in mind that 62.5% of them use only Arabic script. Such a finding may have historical roots, as the southern region is the most Arabised area in Algeria mainly because the French assimilationist policies did not succeed in these areas.

4.3.2.6. Use of Arabic Script to Represent French and English

Analysing script manifestations on Facebook indicate that there are no limits for human's adaptation of linguistic resources to meet their communication needs, as people play with the scriptural possibilities to represent themselves. This, actually, does not only stimulate curiosity of linguistics' researchers but it also calls for refining the established linguistic standards, which are becoming archaic, hinder people's communication abilities, and fail to cover the digital linguistic practices. In addition to the abovementioned usages of the scripts available, another form is also seeping gradually to the Algerian linguistic usages on Facebook. French and English words and expressions are sometimes written in Arabic script (see item iv in 4.2.2.2.), i.e. Arabised French and English.

Beginnings of such forms of script usage were only with some greeting words in French and then in English by 2016 with the proliferation of networked mobile phones in the Algerian society. They have mainly been used by young people for humour, yet they spread gradually to reach more population and usages. Today, Arabic-scripted writings of French and English words and expressions are common in all Facebook writing spaces. With the development of such linguistic practices, their functions have been expanded and they are no longer used only for humour, especially as far as the use of French is concerned. This is particularly the outcome of technological facilities of smartphones, as it is enough to slide right or left the small space provided for languages on the screen to change the language and the script as well. In addition, participants sometimes find it disturbing to switch between languages while doing several digital practices at once, such as messaging instantly with different friends, commenting, and updating status. As a result of the shift towards the use of Arabic-scripted writings instead of

Latinised Arabic, users often prefer to carry on using the Arabic script even to write in French or in English, instead of switching to Latin script and back again to Arabic. In this respect, statement 12 in question 8 was put forward to investigate the extent to which this form is used amongst Algerian Facebook users.

Table 18: Results of the Respondents' Use of the Arabic Script to Represent French and English

	Never	Rarely	Sometimes	Generally	Always	Total
Frequency	101	49	47	25	20	242
Percentage	41.7%	20.2%	19.4%	10.3%	8.3%	100%

*This table presents respondents' answers to statement 12 of question 8 of the questionnaire, *"I write some French and English words and sentences in the Arabic script depending on their pronunciation"*.

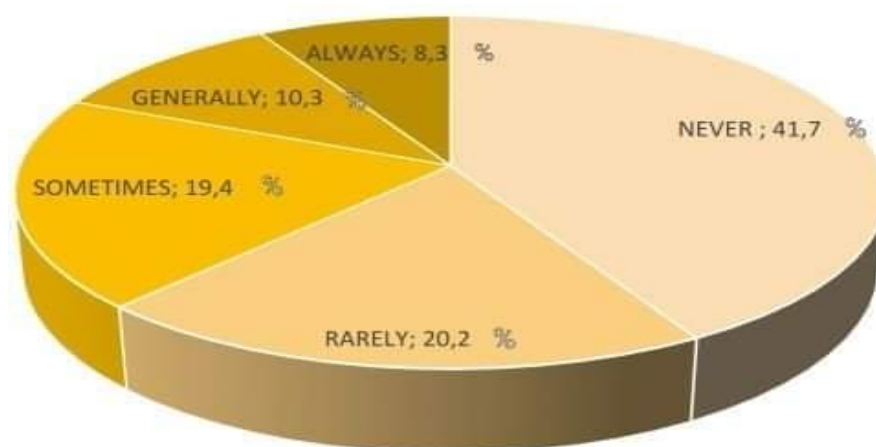


Figure 11: Representation of the Use of the Arabic Script to Represent French and English

61.9% never or rarely use the Arabic script to represent French and English words and expressions on Facebook. This is not an unexpected result, but rather it is quite obvious since this is a new phenomenon if compared to Latinised Arabic, for example. Actually, 38% of Algerians who use this form is a figure that should not be taken for granted, as it is of a paramount significance as far as the Algerian sociolinguistic situation on Facebook is concerned. As for age differences (see table 65 appendix 14), people less than 20 and those who are aged between 26 to 30 use this form more than others. Differences are also exhibited across genders (see table 66 appendix 14); results reveal that females use Arabised-scripted writings in French and English less than males do. Female's tendency to use standard and prestigious speech forms may explain this finding. Another outstanding result is the impact of education, as the more educated respondents are the less they use this form of writing (see table 68

appendix 14). Region, however, seem to have little impact, except for statistics of respondents from the west who use this linguistic practice more than the others do (see table 67 appendix 14). These linguistic practices that are the outcome of digital communication are so similar throughout the different regions in Algeria, unlike traditional linguistic usages. This can be due to the fact that all Algerian Facebook users are exposed to the same data, especially with the ubiquity of Facebook groups and pages that bring together Algerians from different areas. The question that comes to mind is, is Facebook communication leading to the emergence of digital linguistic practices that result in convergence of linguistic features offline in the long run?

These findings do not only point to the steady shift towards the Arabic script instead of a Latinised version of Arabic, but they also reverse the situation since Arabised French and English are challenging Latinised Arabic. Accordingly, the idea that Latinised Arabic is threatening the Arabic language and culture as it is often considered as a form of linguistic and cultural imperialism is questioned. Actually, such linguistic usages do not signal linguistic ruin, but they rather mirror historical, cultural, and digital realities in addition to the fact that they are used as semiotic recourses to represent identity, which is a hybrid between local and global features. This hybridity is unavoidable since it is a natural result of communication in the “global village”. Language researchers are required to describe and explain linguistic phenomena instead of judging them. Hence, one of the objectives of this research is to attempt to investigate why do Algerians still use Latinised Arabic in spite of the availability of Arabic script.

4.3.3. Factors behind Maintaining Latinised Arabic

As a result of constant development and updates of Facebook services, Algerians today can use the Arabic script to communicate. However, Latinised Arabic is still maintained. Understanding the reasons behind using Latinised Arabic in addition to or instead of Arabic script in spite of the availability of the latter is crucial, as it is considered one of the keys to understand whether the Algerian sociolinguistic situation is preserved online or the new digital context is leading to radical changes. In order to reach this objective, the researcher proposed twelve possible factors that cover five major dimensions of script choice as an attempt to answer question 6 in the questionnaire. This question, “why do you use Latin script to represent Arabic?” is addressed only to those who use Latinised Arabic or Berber. The factors suggested are the result of the researcher’s observations of Algerians’ scriptural usages as well as readings about the topic.

4.3.3.1. Technical Constrains

Actually, LA has been first used online as a linguistic strategy to overcome technical constrains (Palfreyman and Al-khalil, 2003; Aboelezz, 2009; Gordon, 2011; Tagg, 2015) because communication technologies are western products and Arabic was completely marginalised. So, the researcher attempts to know whether this still constitutes an obstacle for the Algerians, or they use this form for other reasons. The following table reveals results of respondents' answers about whether or not technical constrains prevent them from using the Arabic script instead of LA.

Table 19: Results of Respondents' Choice of LA because of Technical Constrains

	Never	Rarely	Sometimes	Generally	Always	Total
Frequency	96	17	30	23	12	178
Percentage	53.9%	9.6%	16.9%	12.9%	6.7%	100%

*This table presents respondents' answers to statement 1 of question 6 of the questionnaire, *"the device I use does not contain the Arabic and Berber scripts"*.

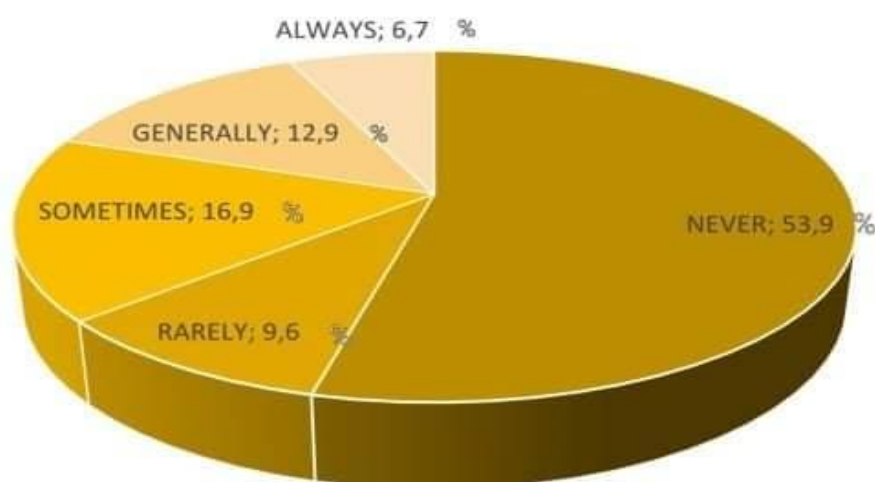


Figure 12: Representation of the Respondents' LA Choice because of Technical Constrains

63.5% of those who use Latinised Arabic, do not use it as a result of technical difficulties, while only 19.6% answered "always" or "generally"; i.e., they are determined to use this form of writing because of the device they use for their online communication since some sophisticated devices do not contain the Arabic writing system. In other words, the majority still use Latinised Arabic in spite of the fact that they can use the Arabic script instead. So, this factor has led to the emergence of such a linguistic practice but it is not what explains its maintenance.

4.3.3.2. Linguistic Facilities of Latin Script

Another factor that may explain people's maintenance of Latinised Arabic is the linguistic facilities it provides such as the use of abbreviations and shortened forms of writing in addition to the fact that Algerian Arabic is loaded with many foreign loan words and using Latin script would be better. Two statements (7 and 8) have been put forward to check the extent to which linguistic facilities provided by Latinised Arabic push people to use keep using it.

Table 20: Results of the Respondents' Use of LA because of its Linguistic Facilities

Statements		Never	Rarely	Sometimes	Generally	Always	Total
1-It enables me to use abbreviations, symbols, and numbers instead of whole words and sentences.	F	11	10	30	43	97	191
	P	5.8%	5.2%	15.7%	22.5%	50.8%	100%
2- because the vernacular contains many foreign words.	F	12	13	38	72	53	188
	P	6.4%	6.9%	20.2%	38.3%	28.2%	100%

*This table presents respondents' answers to statement 7 and 8 of question 6 of the questionnaire.

Results of the first statement show that one of the major factors behind using this script is due to the fact that it enables people to use shortened forms of writing instead of writing whole words and expressions; 73.3% of those who use Latinised Arabic answered "always" or "generally" while only 11% answered "never" or "rarely". This finding goes in tune with results of statement 1 in table 27, which reveal that 56% of respondents generally or always use abbreviations and symbols instead of long sentences (see item 4.3.5.1. below). Actually, due to the instantaneous nature of online communication, especially private messaging in which people type messages as rapid as possible, people often prefer to use the shortest way possible to preserve time and efforts. This feature is more possible in Latin script and barely possible in Arabic script because of their different writing systems. The former enables people to remove some parts of words like vowels for instance while the latter does not, as vowels in Arabic are already omitted since they are optional diacritical marks, i.e. there is nothing else to omit without changing meaning.

Interestingly, there are significant differences across age groups. The youngest respondents are, the more they use Latinised Arabic because it enables them to use abbreviations and shorter forms of writings (see table 69 appendix 15). Actually, 96.2% of respondents who are less than 30 years old abbreviate and use short forms, while only 3.8% who are more than 30 abbreviate. It should be mentioned in this respect that the youngest

respondents are, the more they use Latinised Arabic and the less they use the Arabic script (see table 37 Appendix 4). So, this finding confirms the claim that the use of abbreviations is more correlated with Latinised Arabic than with the Arabic script.

In addition to age differences, there are also significant differences across genders as far as this factor is concerned. 61.5% of female respondents always use Latin script because it enables them to use abbreviations, while 33.8% of males answered “always” (see table 70 appendix 15). This is also related to the extent to which they abbreviate and use Latinised Arabic; 58.4% of female participants abbreviate and 32.9% of them use Latinised Arabic. Males, however, abbreviate and use Latinised Arabic less; 52.5% and 21% respectively. Besides that, 29% of respondents who have a post-graduation degree answered “always” and they abbreviate less than those with less educational level (see table 71 appendix 15).

The second factor that is related to the nature of the script is due to the foreign words inserted in Algerian Arabic, which are more likely to be represented in Latin script. This what has been revealed in a previous research by Zahali (2013: 106) in an interview with one of the research participants who said that: *“Colloquial Arabic is difficult to be understood if written in Arabic letters and would be easier in Latin script because the former is not adequate for Colloquial Arabic, which is full of foreign words”*. So, the researcher attempts to see whether this is still a major factor behind using Latinised Arabic.

Indeed, results indicate that most of respondents (66.5%) who use Latinised Arabic are backed also by its ability to represent the borrowed words into Algerian Arabic (see statement 2 in table 20 above). However, 13.3% never or rarely chose this form of writing because of the foreign words inserted into their local dialects. This may have to do with the aforementioned result, related to scriptural usages, since 18.6% of respondents “generally” or “always” use the Arabic script to represent foreign words and expressions (see table 18 above). Differences are also exhibited throughout the different gender, educational level, and age groups (see tables 72, 73, and 74 respectively in appendix 15). So, for some, these installed loan words are not the main reason behind choosing Latinised-scripted writings. In addition to technical constrains and its linguistic features, Latinised Arabic might also be used as a result of people’s abilities and attitudes towards it.

4.3.3.3. Users' Abilities and Attitudes towards the Scripts

In addition to the technical constraints that determine communication strategies and some linguistic facilities provided by Latinised-scripted writings, people's skills in the scripts as well as their attitudes towards them may play a great role in choosing one script rather than the other. Five statements have been suggested to know the extent to which this factor has to do with maintaining Latinised Arabic.

Table 21: Results of the Respondents' Use of LA due to their Abilities and Attitudes towards the Scripts

Statements		Never	Rarely	Sometimes	Generally	Always	Total
1- Latinised Arabic is more suitable.	P	9	12	49	48	72	190
	F	4.7%	6.3%	25.8%	25.3%	37.9%	100%
2- I spend more time when I use the Arabic script.	P	45	21	46	48	32	192
	F	23.4%	10.9%	24.0%	25.0%	16.7%	100%
3- Latin script is easier for me to use.	P	20	6	22	41	99	188
	F	10.6%	3.2%	11.7%	21.8%	52.7%	100%
4- I find difficulties in using and understanding Latin script.	P	113	39	17	8	6	183
	F	61.7%	21.3%	9.3%	4.4%	3.3%	100%
5- Arabic script fails to transmit the ideas I want to express.	P	79	37	37	20	17	190
	F	41.6%	19.5%	19.5%	10.5%	8.9%	100%

*This table presents respondents' answers to statements 2, 3, 6, 9, and 11 of question 6 of the questionnaire to see whether people use Latinised Arabic as a result of their abilities and attitudes towards it.

Results exhibited in the table above reveal that most respondents (37.9% answered "always" and 25.3% answered "generally") believe that "*Latinised Arabic is more suitable than the Arabic script*". This is consistent with previous results about the facilities of Latinised Arabic (see table 20 above); 50.8% answered "always" and 22.5% answered they "generally" use this script because it enables the use of abbreviations and shortened forms. In addition, 28.2% and 38.3% answered "always" and "generally" respectively for the statement that they use Latinised script because of the linguistic borrowings inserted in Algerian Arabic. For such reasons, those who still use this form of writing believe that it is more suitable than the Arabic script.

There are clear differences between females and males in their attitudes towards Latinised scripts, as 71.8% of the former answered "always" or "generally" while 49.3% of the latter answered so (see table 75 appendix 16). This goes in tune with previous findings that women tend to choose prestigious linguistic forms, on the one hand, and this also explains gender

differences in script choice, on the other (see table 38 appendix 4). Differences are also exhibited across regional groups (see details in table 76 appendix 16); since questionnaire results show that 44.4% of respondents from the east and only 11.1% from the centre and the west “never” use Latinised Arabic because it is more suitable, while 72.2% from the centre and 2.8% from the south answered “always” to the same statement.

In addition, 41.7% generally or always use Latinised Arabic because “*they spend more time when they use the Arabic script*”. However, 34.3% never or rarely use Latinised Arabic because of the long time they spend in using Arabic. So, some respondents have got acquainted with the use of Latinised Arabic, that’s what might explain the long time they spend in using Arabic and this makes them prefer the former rather than the latter because of the instantaneous nature of communication on Facebook. However, the others, in spite of the fact that they are rapid in using the Arabic script, they still use Latinised Arabic.

Most respondents (52.7%) “*use Latinised Arabic because it is easier*”. This can be also due to the loan words in Algerian Arabic as well as the possibility of typing less text in using Latinised Arabic, bearing in mind that people prefer easy and rapid ways of online communication. Besides, identity also plays a role in script choice, since the script used can be considered as an important identity marker, that’s why considerable differences have been noticed across age, gender, regional, and educational backgrounds (see tables 77, 78, 79, and 80 in appendix 16).

The statement, “*I find difficulties using and understanding Latin script*”, was used mainly to check respondents’ answers to the above statements and whether there is any contradiction in their answers. In addition, as a result of the steady shift towards the use of the Arabic script, some people find difficulties understanding Latinised Arabic and they sometimes avoid reading comments written in Latin script since they spend a longer time. Obviously, the overwhelming majority of respondents (83%) who use Latinised Arabic never or rarely find difficulties using or understanding it. Surprisingly, 7.7% answered generally or always ⁽⁶⁾.

As the table above reveals, the majority (61.1%) do not choose Latinised script because “*the Arabic script fails to transmit the ideas they want to express*”. However, 19.4% answered “always” or “generally”, they can be some Berbers (48.1% of Kabyle respondents answered “always” or “generally”, see details in table 84 appendix 16) or Francophone community who do not really master Arabic, in addition to those who switch between the two scripts in order to

compensate scripts' drawbacks or to fulfil their communication needs (like the use of abbreviations and loan words for instance).

This research also attempts to investigate the factors behind the tendency of Algerian Berbers to maintain the use of Latin script (to represent Arabic or Berber) in their Facebook usages; statistics show that only 6% of Berber respondents use the Arabic script, 62% use Latin script, and 32% use both scripts (see table 9 above). To attain this objective, Berber respondents have been separated from the others to study particular phenomena (some questions have been chosen to check Berbers' answers). It should be noted that Berbers in Algeria are categorised into four major groups who exhibit considerable linguistic differences (see item 1.4.1.). So, Berber respondents have been classified according to their belonging in order to see whether these differences have been transmitted to the online world or not. Only two Berber groups are represented in this research due to the nature of data collection (the use of a snowball sampling technique).

Table 22: Results of the Berber Respondents' Use of LA due to their Abilities and Attitudes towards the Scripts

Statements		Never	Rarely	Sometimes	Generally	Always	Total
1- Latinised Arabic is more suitable.	P	3	0	5	18	22	48
	F	6.3%	0%	10.4%	37.5%	45.8%	100%
2- I spend more time when I use the Arabic script.	P	8	7	12	10	12	49
	F	16.3%	14.3%	24.5%	20.4%	24.5%	100%
3- Latin script is easier for me to use.	P	3	1	6	9	29	48
	F	6.3%	2.1%	12.5%	18.8%	60.4%	100%
5- Arabic script fails to transmit the ideas I want to express.	P	15	6	10	9	7	47
	F	31.9%	12.8%	21.3%	19.1%	14.9%	100%

*This table presents Berber respondents' answers to statements 2, 3, 6, and 11 of question 6 of the questionnaire to see whether Berber people use Latinised Arabic as a result of their abilities and attitudes towards it.

As expected, the majority of Berber respondents (45.8%) answered "always" to the statement: "*Latinized Arabic is more suitable*". For that reason, they find it more difficult to use the Arabic script to represent the Arabic language or Berber than Latin script; 24.5% answered "always" to the statement: "*I spend more time when I use the Arabic script*" and 60.4% answered "always" to the statement: "*Latin script is easier for me to use*".

At the first glance to these results, one may think that this is a matter of practice, since they use Latin script more than the Arabic one that's why they find difficulties in the latter

rather than the former. However, this phenomenon also has socio-political factors. First, the Berber people have been the target of the French policy “divide to rule” during colonisation, that gave better French education to the Berbers rather than the Arab communities in Algeria. Second, the policy of Arabisation implemented by the Algerian rulers has been rejected by Kabyle people. Last but not least, the choice of French language and Latin script has ideological and political explanations, since they use them as strategies to exert power and to show their divergent identity as a separate social group from the Arab community. In other words, though they can use the Arabic script, they prefer to use Latin script instead. Yet, in spite of the fact that they find the latter easier, the majority do not think that “*the Arabic script fails to transmit the ideas they want to express*”, as 31.9% answered “never” to this statement.

Interestingly, there have been clear differences between the different Berber groups in their perspectives and abilities towards the two scripts. The majority of Kabyle Berbers (60.7%) answered “always” to the statement: “*Latinised Arabic is more suitable*”, 50% of Kabyle people of Bouira answered “always”, 8.3% of Chaouia answered “always” and 58.3% of them answered “generally” (see table 81 appendix 16). As for the second statement: “*I spend more time when I use the Arabic script*”, the majority of Kabyles (31%) answered “always”, 50% of Berbers of Bouira answered “generally”, and 41.7% of Chaouia answered “rarely” (see table 82 appendix 16). The highest rates of the statistics of the statement: “*Latin script is easier for me to use*” have also been captured by Kabyle people, 72.4% answered “always” (see table 83 appendix 16). Berbers of Bouira and Chaouia people answered 57.1% and 33.3% respectively to the same statement and the same choice (always). Finally, 25.9% of Kabyles answered “generally”, 50% of Berbers of Bouira answered “never”, and 50% of Chaouia answered “never” as well to the statement: “*the Arabic script fails to transmit the ideas I want to express*” (see table 84 appendix 16). Thus, results show that these Berber groups are really different in their attitudes towards the use of Arabic and Latin scripts, as it seems that Kabyle people prefer to use Latin script and they are more competent in it unlike Chaouia people. As far as Kabyles of Bouira are concerned, they are in the medium due to the fact that they cohabitate with the Arabic community in the same region; i.e. they are in frequent contact with them.

4.3.3.4. The Interlocutors

People often switch to the script used by their interlocutors and in some cases they maintain using a script though their interlocutors are using a different one. In addition, Latinised

Arabic is also used with educated people. So, statements 4 and 5 of question 6 are put forward to check the extent to whether script choice is also determined by the communication members.

Table 23: Results of the Respondents' Script Choice According to their Addressees' Choice and Educational Level

Statements		Never	Rarely	Sometimes	Generally	Always	Total
1- Latin script is used with the interlocutors who use it.	F	13	16	31	57	71	188
	P	6.9%	8.5%	16.5%	30.3%	37.8%	100%
2- Latinised Arabic is used to communicate with educated people.	F	26	21	50	39	52	188
	P	13.8%	11.2%	26.6%	20.7%	27.7%	100%

*This table presents respondents' answers to statements 4 and 5 of question 6 of the questionnaire.

As shown in the table above, among the most important factors that determine script choice is the interlocutor, as 68.1% of respondents generally or always use Latinised Arabic with people who use it. These findings are so significant as they point to two kinds of script switching. First, switching occurs as a result of the script used by the interlocutor within the same writing space (instant messaging, within comments, or commenting to a status update). Second, 15.4% answered “never” or “rarely” and 16.5% answered “sometimes”, i. e., some people use the Arabic script even with interlocutors who use Latinised Arabic. In other words, sometimes participants use different scripts in the same conversation, and this is another common type of script switching (see example 13 in item 4.2.2.1.). This can be so similar to code-switching since this is also found when someone is talking in a variety and the interlocutor replies in another variety.

In spite of the fact that the majority answered “always” (27.7%) and “generally” (20.7%), the use of LA with educated people is not so high. This might be due to the shift towards the Arabic script, since LA is no longer associated with prestige and education as it used to be few years ago. Results also reveal that people with less educational level (primary, mediate, and secondary) use LA with educated people more than people with university and post-graduation degrees do (see table 85 appendix 17). This can be explained by the fact that the former category wants to transmit a better image about themselves to their educated interlocutors (see item 4.3.3.5. below). Actually, the image one wants to transmit to others may play a great role in script choice.

4.3.3.5. The Image One Wants to Transmit about him/herself

The selection of a code or a script can also be related to the way participants want to represent themselves to others. So, users do not switch between scripts only as a result of the script their interlocutors are using, but rather they care about how they want to appear to others. For instance, one of the interviewees in Zahali (2013: 106) assumed that males imitate their female interlocutors who use Latinised Arabic in order not to seem Arabised. This is so similar to code-switching since topics can be tackled in either code, however the use of certain codes add special value to what is said about the same topic because this choice encodes social values (Wardhaugh, 2006: 104). For that reason, users tend to select a particular code or script instead of another in order to transmit a specific image about themselves depending on their knowledge about their audience and the social values associated with the codes in different situations. Accordingly, statements 10 and 12 in question 6 seek to check how respondents think about the two scripts, especially that in Zahali (2013) results revealed that Latinised Arabic was more prestigious than the Arabic script, as the former was associated with education while the latter was associated with “backwardness”.

Table 24: Results of the Respondents’ Script Choice according to the Image they Want to Transmit about themselves to others

Statements		Never	Rarely	Sometimes	Generally	Always	Total
1- Arabic script is associated with backwardness.	F	140	17	16	3	8	184
	P	79.1%	9.2%	8.7%	1.6%	4.3%	100%
2- Latinised Arabic gives the impression that its user is educated and cultivated.	F	106	18	32	14	17	187
	P	56.7%	9.6%	17.1%	7.5%	9.1%	100%

*This table presents respondents’ answers to statements 10 and 12 of question 6 of the questionnaire.

The table above shows that the overwhelming majority (79.1%) answered “never” to the statement: “*Arabic script is associated with backwardness*”, while only 4.3% answered “always”. So, the use of the Arabic script has spread amongst the Algerian Facebook users and their negative attitudes towards it have changed because it is tied to the cultural identity of most Algerians. It is also important to mention that significant gender differences have been observed in answering this statement (see table 86 appendix 18). 79.6% of female and 70.4% of male respondents answered “never”. This may indicate that males who still use Latinised Arabic care about the image they want to transmit to their female interlocutors and they prefer to distance

themselves from the assumption of being Arabised since for girls in Algeria, French is more prestigious and associated with education and cultivation.

Besides, the majority (56.7%) do not think that “*Latinised Arabic gives the impression that its user is educated and cultivated*”. There are also differences across genders in answering this statement (see table 87 appendix 18): 51.8% of females and 64.4% of males answered “never”. Hence, unlike the previous statement, males’ responses exceeded females’ to the answer “never”. In other words, while men think that their usage of the Arabic script gives the impression of backwardness to their interlocutors more than females, the latter think that the use of Latinised Arabic gives the impression to others that its user is educated and cultivated more than the former.

Accordingly, results of these two statements indicate once again the steady shift towards the Arabic script instead of Latinised Arabic, which was dominant few years ago. Algerians who still use Latinised script do neither believe that it is more prestigious than the Arabic script and that it is a sign of education and cultivation nor do they believe that using the Arabic script gives an impression of backwardness. Hence, this change in people’s attitudes might be one of the major factors that lead to this shift.

4.3.4. Language Choice

Language choice is not random, as several factors overlap leading to a combination of the different linguistic resources available. This process is becoming even more complex online due to the digital nature of communication on the one hand and the various linguistic varieties used by the Algerians in several manners, on the other. So, this section is crucial to the attainment of the main research aim, since it does not only reveal characteristics of language use on Facebook and factors of language choice, but rather it enables us to determine whether or not language choice online is different from the traditional one. Broadly speaking, language choice on Facebook can be determined by many factors, which have been arranged in this research into two major dimensions: Facebook writing spaces and the interlocutors. Throughout this section, several related themes will be discussed.

4.3.4.1. Language Choice on Facebook Writing Spaces

Language choice differs across Facebook writing spaces, which can be: 1) synchronous or asynchronous and 2) one-to-one or one-to-many (Baron, 2010). Facebook provides three spaces for writing: status updates, private messaging, and comments. Private/instant messaging,

as the name implies, occurs instantaneously in private, i. e., communication is often one-to-one, not public, and happens most of the times in a real time. Comments and status updates, however, are public or semi-public spheres and communication in these writing spaces is not as instantaneous as in private messaging. Such types of communication do not only differentiate between the writing spaces, but they determine the way people use language and the linguistic varieties they choose as well. So, the upcoming part considers respondents' language choice in comments, private messaging, and status updates.

Table 25: Results of the Respondents' Language Choice on Facebook Writing Spaces

Statements		Standard Arabic	Algerian Arabic	Berber	French	English	Language mixing	Total
1-To chat in private	F	52	156	40	83	52	62	242
	P	21.5%	64.5%	16.5%	34.3%	21.5%	25.6%	
2-To comment	F	102	111	25	90	52	89	242
	P	42.1%	45.9%	10.3%	37.2%	21.5%	36.8%	
3-To update status	F	128	52	16	82	67	47	238
	P	53.8%	21.8%	6.7%	34.5%	28.2%	19.7%	
4-To share posts	F	108	54	12	72	54	51	224
	P	48.2%	24.1%	5.4%	32.1%	24.1%	22.8%	
5-To post written pictures	F	120	46	15	74	69	49	235
	P	51.1%	19.6%	6.4%	31.5%	29.4%	20.9%	
6-To post/comment on religious topics	F	179	38	4	18	13	16	229
	P	86.0%	16.6%	1.7%	7.9%	5.7%	7.0%	

*This table presents respondents' language choice in different cases of language use in Facebook writing spaces. Research participants were asked (question 7) to choose the variety(ies) they use in different cases suggested in the statements.

Before getting into the details, the first idea that can be grasped after having a look at the table above is that all the varieties used by the Algerians in the 'real' life are used in varying degrees in the different situations of Facebook writing spaces. This leads to the conclusion that the varieties used offline are transmitted to the 'Blue World' marking, hence, the multilingual character of the Algerian communication on Facebook. Algerian Arabic is dominant in private messaging and comments, constituting 64.5% and 45.9% respectively. Interestingly enough, Standard Arabic captured the highest rates of language choice in status updates (53.8%), sharing posts (48.2%), posting written pictures (51.1%), and posting or commenting on religious topics (86%). These findings are crucial and stimulate discussions about many related themes.

i. Standard Arabic and Algerian Arabic

Internet, in general, and social networking sites, in particular, have always been accused of promoting local vernaculars, which are often considered as inferior speech forms, at the expense of standard and ‘correct’ linguistic usages (Foraghy, 2010). However, findings exhibited in the above table reveal the opposite, since SA is also widely present in the different Facebook communication situations in spite of the strong presence of Algerian Arabic as well. Actually, such results have been expected since language is not only a means of communication, but rather it holds within its users’ identity. Both forms, Standard Arabic and Algerian Arabic, are equally important for the Algerians as they represent their cultural and social identity, and getting rid of one of them is barely impossible because losing a language means, accordingly, losing identity. It should be mentioned, however, that though both are used on Facebook, they are used in different domains in complementary distribution.

ii. Diglossia

The fact that SA and Algerian Arabic are used in different language situations in a complimentary way (i.e., they are having different roles dictated by specific social and digital norms), leads us to talk about diglossia in Facebook. That is to say, the traditional functional distribution of the two varieties across different domains of use seem to seep to the online world. While Algerian Arabic is mainly used in private messaging and comments, SA is reserved particularly to discussions about religious topics and status updates, with its different digital practices such as sharing others’ posts and uploading written pictures. So, synchronicity of the mode, the nature of communication (private or public), the degree of formality in the different language situations, as well as the topic of discussion all together control the distribution of their functions on Facebook.

Hence, diglossia seem to have a digital version on Facebook. It is not surprising to have such a distribution since even offline, SA is used for formal situations and rarely used for spontaneous face-to-face communication. Using it in asynchronous modes gives the opportunity to people to edit and check what have been written before sharing the content with others in public. In addition, sharing others’ posts and uploading written pictures are ready-made and they differ from synchronous communication. Moreover, people in public media of communication tend to be selective and pay attention to what they say because they feel they are watched by others and they can be judged, unlike in private messaging, which occurs most

of the times between friends instantaneously. Therefore, SA is getting out of the traditionally defined official functions.

Last but not least, SA has acquired new domains of use and it is no longer preserved only for religious, university, and political formal speeches, but rather it is widely used in the digital environments of communication. Its usages online are wide, as indicated in the statistics, and it is used in different communication purposes in varying degrees. It is interesting also to refer to the contemporary levels of Arabic (Badawi, 1973) instead of referring only to diglossia, which does not really depict the linguistic situation of Arabic (Versteegh, 1997). These levels are mainly due to people's educational background and they can be inferred on Facebook through analysis of their linguistic usages, mainly mistakes of grammar (Abd El Karim, n.d.). Besides, SA is widely used as a result of digital resources, among other factors, because people are not always required to have a good command to use on Facebook thanks to practices like copy-paste and sharing content in SA. This also gives insights to diglossia because Arabic speakers have little productive skills in its standard version (see also item 4.3.5.3.).

iii. Berber

In addition to the use of Arabic, Berber is also present on Facebook. It is mainly used in private messaging and comments, constituting 16.5% and 10.3% of the population respectively. Unlike private messaging and comments, status updates are supposed to be understood by a larger audience since they are normally addressed to the list of Facebook contacts, which can include non-Berbers as well. This may explain why do Berbers use their language for private messaging and comments more than status updates. It should be also noted that Berber usage rates are relatively low because Berbers represent only 20.57% of the research respondents, i.e., results could have been higher if more Berbers were represented in the sample.

iv. French and English

French and English are also widely present in the Algerian linguistic manifestations on Facebook. Rivalry between French and English is salient, since there are big approximations between rates of using the two languages. This result is also significant since it reinforces previous observations and findings about the status of French and English in Algeria. For instance, Crystal (1997) believes that English is replacing French in Algeria. So, this is also transmitted to the online world, where English is given the floor to seep gradually to the

Algerian linguistic practices especially amongst the youngsters. English is competing French in Facebook mainly in status updates (the former constitutes 28.2% while the latter constitutes 34.5% of the respondents) and posting written pictures (29.4% use English and 31.5% use French). However, in private messaging and comments, French is a bit more dominant than English because French is still used as a language of communication in Algeria, alongside Arabic and Berber.

v. Language Mixing

Another important Algerian linguistic behaviour that defines the Algerian sociolinguistic landscape as a result of its multilingual character and that has been transmitted to Facebook usages is mixing between different linguistic varieties within the same language situation.

vi. Variations in Language Choice

Considerable differences have been found between respondents according to their age, gender, education, and regional belonging. Language choice in the different writing spaces is not the same amongst the different groups. In other words, though Facebook provides new contexts of language use and determines the way it is used, traditional social variables (age, gender, educational level and region) still shape people's linguistic practices. As far as age is concerned (see appendix 19), the oldest respondents are the more they use Standard Arabic in the different writing spaces, and the youngest they are the more they use Algerian Arabic. Berber also seem to be more used on Facebook by people who are less than 25 years old. Concerning the use of Foreign languages (French, English, and mixing between languages), old people seem to maintain using French on Facebook, while young people (especially those between 21 and 25 years old, mainly university students) use English and mixing between languages more. These findings are so significant since they confirm the hypothesis that there is a gradual shift towards the use of English instead of French, which has long installed itself as the language of prestige and wider communication in Algeria, amongst youngsters (at least online).

Gender also determines respondents' language choice on Facebook writing spaces (see appendix 20). Standard Arabic, Algerian Arabic, and mixing between languages are most of the times used by males more than males. Females are dominant in using Berber, French and English. These findings are consistent with previous findings which indicate that females tend

to use prestigious speech forms (the case of foreign languages in Algeria) while males use the most casual styles/less prestigious ones in society (Standard Arabic and Algerian Arabic are less prestigious than foreign languages in Algeria). That is, this finding has also been transmitted to the virtual world, making of the Algerian sociolinguistic practices relatively similar to offline usages. As for the use of Berber, Females are more likely to maintain using it on Facebook.

Language choice also has to do with the regional belonging of respondents (see appendix 21). Standard Arabic is mostly used by people from the south, the area which was less influenced by the educational policies during the French colonisation and more influenced by Arabisation in the 1970s. People who belong to central regions of Algeria are the ones who use Berber, French and English the most. As for the use of Berber, this finding is due to the fact that the Kabyle people, an important and large Berber group who tend to maintain using it, is mainly concentrated in this area. Besides, this region is known of its care about foreign languages (French and English). Another important finding is related to the use of mixing between languages, which show that it is predominantly used by people from the west. As for the respondents who belong to the eastern regions, they mainly use Standard Arabic and Algerian Arabic. This has two dimensions; on the one hand, this is the area that has been first Arabised during the spread of Islam to the Maghreb regions. On the other hand, Chaouia people (another important Berber group in Algeria) are not as fanatic to their mother tongue as the Kabyle people due to political factors inherited from the French policy, ‘divide to rule’ during colonisation.

The educational level of respondents also determines language choice on Facebook writing spaces (see appendix 22). People who have little educational degree (primary and mediate levels) use Standard Arabic and Algerian Arabic more than the other languages. People with a secondary level use French mainly in asynchronous situations (to share status and to post written pictures). The highest rates of English usage are captured by people who have a university level. As for post-graduate people, they use Standard Arabic, French, and sometimes language mixing the most. Berber is mostly used by people who have secondary and university levels in the different language situations on Facebook. This finding is concordant with the previous results related to age differences, which shows that Berber is mainly used by people of a young age on Facebook.

4.3.4.2. Berbers' Language Choice on Facebook Writing Spaces

As has been explained before, the Berbers constitute 20.57% of the research population. They have been classified into three groups: Kabyles, Kabyles of Bouira, and Chaouia. Since they are a distinguishable social group in Algeria, the research tries to shed some light on the languages they use, in which language situations, and what factors determine their choices. Besides, it also aims to investigate the impact of Facebook on Berbers' language choice and the possible differences between the Berber groups in their linguistic usages.

Table 26: Results of the Berbers' Language Choice on Facebook Writing Spaces

Statements		Standard Arabic	Algerian Arabic	Berber	French	English	Language mixing	Total
1-To chat in private	F	5	32	36	31	11	6	50
	P	10%	64%	72%	62%	22%	12%	
2-To comment	F	12	20	23	25	10	18	50
	P	24%	40%	46%	50%	20%	36%	
3-To update status	F	16	6	15	26	13	9	48
	P	33.3%	12.5%	31.3%	54.2%	27.1%	18.8%	
4-To share posts	F	10	15	12	25	10	10	48
	P	20.8%	31.3%	25%	52.1%	20.8%	20.8%	
5-To post written pictures	F	13	9	15	23	15	11	49
	P	26.5%	18.4%	30.6%	46.9%	30.6%	22.4%	
6-To post/comment on religious topics	F	32	10	4	12	2	6	46
	P	69.6%	21.7%	8.7%	26.1%	4.3%	13%	

*This table presents respondents' language choice in different cases of language use in Facebook writing spaces. Research participants were asked (question 7) to choose the variety(ies) they use in different cases suggested in the statements.

Statistics reveal that the Berber community also uses all the language varieties used in Algeria in a varying degrees, yet they differ considerably from the Arab community in their choices in Facebook writing spaces. The varieties they use the most in private messaging and comments are Berber (72% and 46% respectively), Algerian Arabic (64% and 40% respectively), and French (62% and 50% respectively), unlike the Arabic-speaking Algerians (see table 26 above) who mainly use Algerian Arabic in both of private messaging (64.5%) and comments (45.9%). These findings are the result of a combination between several social, political, and historical factors (see details in chapter one). Actually, their first language is Berber, that's why they use it in the most informal writing spaces in Facebook. Yet, due to the educational policies implemented in the Berber regions, most of them grow up bilingually (having two mother tongs); either Berber-Algerian Arabic or Berber-French bilingualism.

Unlike private messaging and comments, status updates are most of the times exposed to a larger audience. For that reason, the degree of formality as well as the language chosen differ. The dominant language in this writing space is French, the language of prestige and formal discourse in most cases. 54.2% of Berbers use French in status updates, 52.1% use it in sharing posts, and 46.9% use it in posting written pictures. They also use Standard Arabic in status updates and posting or commenting on religious topics (33.3% and 96.6% respectively). The Arab community, however, uses mainly Standard Arabic in these situations of language use (see table 25 above).

Interestingly, the three Berber groups represented in this research are different in terms of language choice in Facebook writing spaces (see appendix 23). Kabyles use Berber and French more than Chaouia people in private messaging, comments, and status updates. Chaouia people, on the other hand, use SA and Algerian Arabic more than Kabyles, while they use French less than them in the aforementioned Facebook writing spaces. This might be due to the fact that the Arabisation and Islamisation of North Africa since the different phases of history succeeded to some extent with Chaouia and failed with Kabyle people. In addition to these writing spaces (private messaging, comments, and status updates), language choice also differs according to the participants of communication.

4.3.4.3. Language Choice According to the Interlocutors

As has been mentioned in chapter 2, social networking sites in general and Facebook in particular support the maintenance of pre-existing social relations and contribute to the establishment of new social networks (Boyd and Ellison, 2010 cited in Chen et al., 2013). Indeed, Algerians on Facebook communicate with close people, such as friends and family members, and they also establish new relations. The latter is fostered especially after the proliferation of Facebook groups, blogs, and pages that join together people from different social, geographical, and linguistic backgrounds. In comments for instance, they can get in touch not only with people living in Algeria but they often meet people from the diaspora, Arabs from other countries, and even non-Arabs from different parts of the world. Accordingly, language choice is determined by who the interlocutors are, their educational level, and the language they use as well.

CHAPTER FOUR: THE ALGERIAN SOCIOLINGUISTIC SITUATION ON FACEBOOK – RESEARCH FINDINGS AND DISCUSSION

Table 27: Results of the Respondents' Language Choice According to the Interlocutors

Statements		Standard Arabic	Algerian Arabic	Berber	French	English	Language mixing	Total
1-To communicate with members of groups who belong to different Arab countries	F	148	16	1	37	47	54	237
	P	62.4%	6.8%	0.4%	15.6%	19.8%	22.8%	
2-To communicate with people who do not muster Arabic	F	13	41	11	109	103	48	232
	P	5.6%	17.7%	4.7%	47.0%	44.4%	20.7%	
3- To communicate with close people	F	31	178	40	53	25	35	239
	P	13.0%	74.5%	16.7%	22.2%	10.5%	14.6%	
4-To communicate with new Facebook friends	F	71	106	6	92	38	46	242
	P	29.3%	43.8%	2.5%	38.0%	15.7%	19.0%	
5-To communicate with people of high level of education	F	121	45	5	116	65	48	241
	P	50.2%	18.7%	2.1%	48.1%	27.0%	19.9%	
6-To communicate with people who use Standard Arabic	F	198	41	1	17	8	16	240
	P	82.5%	17.1%	0.4%	7.1%	3.3%	6.7%	

*This table presents respondents' language choice according to their interlocutors in Facebook. Research participants were asked (question 7) to choose the variety(ies) they use in different cases suggested in the statements.

In a short period after it has been launched, Facebook could be ranked the top social networking site, with 85% of social media users (cited in Sanchez et al., 2013), mainly due to its networking feature. Indeed, participants are able to form networks with pre-existing friends as well as with new ones across different political, geographical, cultural, ethnic, and linguistic borders. People do not communicate with new 'friends' in the same way they do with close ones, as they tend to be more careful about language choice with the former and casual with the latter. The overwhelming variety used by respondents to communicate with close people is Algerian Arabic (74.5%).

Research findings, indicated in the table above, prove that language choice is really determined by the interlocutors' belonging, educational level, and the language they use. 62.4% of respondents use SA to communicate with members of Facebook groups who belong to different Arab countries (see statement 1 in table 26 above). Interestingly, 19.8% use English and **15.6%** use French for communication with Arabic-speaking addressees. Actually, communication with people from different Arab countries is widespread thanks to Facebook and it widely affects language choice and language shift in the long run, especially as far as languages of wider communication are concerned. SA is widely used since Algerian Arabic is

said to be difficult to understand by people from the Middle East. Rates of English use exceeds French rates in this case because even offline, English is often used as a lingua franca amongst the different Arabic-speaking countries, whereas French is mainly used by Maghrebi communities, namely Algeria, Morocco, and Tunisia due to historical factors (explained in chapter 1).

In addition, Facebook has also given the opportunity to Algerians to communicate with people from different parts of the world and who do not necessarily master Arabic. Actually, this is one of the facets of living in a ‘global village’, where physical distance does no longer separate between peoples. However, in such contact situations, a lingua franca is required. Most respondents of this research either use French (47%) or English (44.4%) to communicate with people who do not speak Arabic, and some of them also mix between languages (20.7%). What may explain language mixing in such a situation is lack of competence in foreign languages in addition to the fact that such form of language use is widely present on Facebook. Moreover, French is used as a lingua franca more than English may be because they communicate with the Kabyles or other Francophones from different parts of the world. Berbers’ language choice is also determined by who the interlocutors are, yet it is crucial to see whether they differ from the Arabic-speaking community in Algeria in terms of language choice and what varieties they use in the different language situations.

4.3.4.4. Berbers’ Language Choice According to the Interlocutors

It is clear so far that the Berber people in Algeria are different in terms of language choice in the different Facebook writing spaces from the Arabic speaking community (see table 26). Findings also reveal that language choice is determined by who the interlocutors are, their social/geographical belonging, educational level, and the language they use (see table 27). In this respect, it is of a paramount importance to investigate whether the Berbers’ language choice also differs from the Arabs’ though the language situation is similar.

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Table 28: Results of the Berbers’ Language Choice According to the Interlocutors

Statements		Standard Arabic	Algerian Arabic	Berber	French	English	Language mixing	Total
1-To communicate with members of groups who belong to different Arab countries.	F	32	2	1	17	14	6	48
	P	47.9%	4.2%	2.1%	35.4%	29.2%	12.5%	
2-To communicate with people who do not muster Arabic.	F	1	3	9	34	22	6	48
	P	2.1%	6.3%	18.8%	70.8%	45.8%	12.5%	
3-communicate with close people.	F	2	30	37	15	4	5	49
	P	4.1%	61.2%	75.5%	30.6%	8.2%	10.2%	
4-To communicate with new Facebook friends	F	6	21	6	34	8	3	50
	P	12%	42%	12%	68%	16%	6%	
5-To communicate with people of high level of education.	F	13	4	3	40	16	5	49
	P	36.5%	8.2%	6.1%	81.6%	32.7%	10.2%	
6-To communicate with people who use Standard Arabic.	F	32	10	1	6	5	4	48
	P	66.7%	20.8%	2.1%	12.5%	10.4%	8.3%	

*This table presents Berber respondents’ language choice according to their interlocutors in Facebook. Research participants were asked (question 7) to choose the variety(ies) they use in different cases suggested in the statements.

As expected, the Berbers differ considerably in their language choice and the use of French is dominant in most language situations; it is mainly used “to communicate with people who do not muster Arabic” (70.8%), “to communicate with new Facebook friends” (68%), “to communicate with people of high level of education” (81.6%), and “to communicate with people who use French” (93.9%). Standard Arabic, however, is the language used the most mainly when they communicate “with members of groups who belong to different Arab countries” (47.9%) and with “people who use Standard Arabic” (66.7%). As for Berber, it is mostly used with close people (75.5%). Thus, according to the Berber community the language of wider communication is French, Berber is preserved for the informal situations, while Standard Arabic is restricted only to the cases in which the interlocutors use it. It should be noted in this respect that these findings are concordant with the researcher’s own observations, since the Berbers, mainly Kabyles, always tend to disclose themselves from the Arab community by using French in public communication rather than Arabic though they are competent in both languages.

This leads us to tackle another equally important finding, which is the great difference between the different Berber groups in their language choice in the different language

situations. Questionnaire results as well as the researcher's own observations indicate that Chaouia people lean more than the Kabyles to the use of Arabic rather than French (see details in appendix 24). For instance, in order "to communicate with people who do not master Arabic", 72.4% of Kabyles use French and 44.8% use English; 88.9% of Bouira's Kabyles use French and 33.3% use English, and 50% of Chaouia use French and 60% use English. In addition, for communication with "people of high educational level", 17.2% of Kabyles use SA, 89.7% use French, and 31% use English; 33.3% of Bouira's Kabyles use SA, 88.9% use French, and 33.3% use English; 45.5% of Chaouia use SA, 54.5% use French, and 36.4% use English. Accordingly, Kabyle people are different from Chaouia in their language choice, as the former tend to use French more than the latter while the latter use SA and English more than the former in the aforementioned language situations.

As far as these findings are concerned, four major topics can be further discussed. First, in such relatively formal situations, the Berber groups use Standard Arabic, French, and English with varying degrees. Algerian Arabic and Berber, however, are restricted to other less formal cases like private messaging and comments with close friends, for instance. This is a phenomenon which is often referred to as "polyglossia", a situation in which several varieties co-exist in the same speech community with having some as H while others as L varieties (Holmes, 2001).

Second, Berber seems to leave behind its historical isolationism for ever, as even in the most isolated Berber regions there is frequent language contact with Algerian Arabic, SA, French, English, and the other Berber varieties due to social networking sites. As it is exhibited in the tables 26 and 28 above, Berbers online often use varieties other than Berber in many situations. The latter is restricted to the most informal usages, mainly private messaging and communication with close friends on Facebook. That is to say, the competition between the varieties used in Algeria has been transmitted to the online world, especially as far as the Berber case is concerned. In fact, statistics show that Berber is losing ground for French amongst the Kabyles and for Arabic amongst the Chaouia on Facebook because Berbers are put in situations in which they have to communicate with non-Berber speaking people. Accordingly, unlike offline, Berber is not only in frequent competition with Algerian Arabic in informal domains, as Ennaji (2005: 78) assumes, but even French and SA are widely used as well. Actually, language contact may lead to language change and language shift in the long run, that's Berbers

used to keep intact from any contact with others throughout history to preserve their language, culture, and identity.

Third, questionnaire results show that Cahouia people do not only use SA more than Kabyles, but they also use English more. This has insights into the policy of Arabisation implemented by the Algerian government in the 1970s that succeeded to some extent with the former and failed with the latter. Indeed, English has been deliberately introduced to Algeria via education as one of the procedures of Arabisation because it reinforces ties with the English-speaking Middle East (Belmiloud, 2012).

Finally, in spite of this frequent contact and competition between Berber and the other varieties on Facebook, the digital environments of communication can be considered as an effective opportunity for the maintenance of the spoken-only dialects of Berber rather than a threat. In this respect Cunliffe (2007 cited in Tagg, 2015: 49) assumes that “*digital communication has brought new threats and new opportunities to those concerned with maintaining languages*”, communication on Facebook enables the representation of any form of digital content (either text-based or multimodal) in these disadvantaged varieties. This will not contribute to strengthen their position at the national as well as the international levels only, but it will help preserving them. Besides, content produced in Berber can now achieve an outside audience and can be publically known thanks to the new means of communication such as Facebook that give “*a vast potential for presenting local identities*” (Crystal, 2006b: 404), providing accordingly, the chance to save these varieties and “*prolonging their lives*” (Marling, 2006: 8-9). Hence, the presentation of such varieties online, in spite of the fierce competition with the other languages, is a boost to their maintenance for other more centuries, since these media enabled their codification which has never been official.

4.3.5. Linguistic Practices

Another important part of the questionnaire seeks to investigate respondents’ major linguistic practices on Facebook in order to see whether language use online is revolutionary as it is described in the literature. Hence, it sheds light on the linguistic behaviours of the Algerians in the digital context that is said to bring about radical language change, represented in the multiple emergent linguistic forms and communication strategies. Four dimensions of language use on Facebook have been emphasised: 1) language mistakes and shortened linguistic forms, 2) CMC cues, 3) use of linguistic and digital resources, and 4) usages of scripts and numerals.

4.3.5.1. Language Mistakes and Shortened Linguistic Forms

With the proliferation of digital text-based communication, many linguistic practices have spread and others have emerged in an unprecedented way. Synchronicity and informality of communication on Facebook alongside characteristics of the devices used fostered the development of several non-standard typographic forms (shortenings, contractions, clippings, acronyms, initialisms, non-conventional spelling, and letter/number homophones). Such kinds of writing and many language mistakes are perceived to be fuelled by the technologies of communication that are leading, according to many, to linguistic ruin. Therefore, the following table aims to exhibit the extent to which shortened forms of writing are used by the research respondents, whether they correct mistakes or not, and whether synchronicity of communication is the reason behind these forms of writing.

Table 29: Results of the Respondents' Language Mistakes and Use of Abbreviations

Statements		Never	Rarely	Sometimes	Generally	Always	Total
1- I use abbreviations and symbols instead of long sentences.	F	28	29	49	56	79	241
	P	11.6%	12.0%	20.3%	23.2%	32.8%	100%
2- I give importance to accuracy and I correct language mistakes.	F	21	28	66	50	78	243
	P	8.6%	11.5%	27.2%	20.6%	32.1%	100%
3- My mistakes are numerous because I write rapidly and I give importance to meaning more than accuracy.	F	62	64	57	31	28	242
	P	25.6%	26.4%	23.6%	12.8%	11.6%	100%

*This table presents respondents' answers to statements 9, 1, and 8 in question 8 of the questionnaire.

As expected, the majority (32.8%) of respondents use abbreviations and symbols instead of long words and sentences. Actually, shortened forms of writing are one of the defining features of language use in the digital environments of communication since people try to be as rapid as speech in typing messages. For that reason, many parts of words and sentences are sacrificed for the sake of synchronicity. However, most people tend to pay attention to language mistakes, as revealed in the table above (32.1% always give importance to accuracy and correct language mistakes). In addition to that, 25.6% and 26.4% answered never and rarely respectively to the statement *"My mistakes are numerous because I write rapidly and I give importance to meaning more than accuracy"*.

Accordingly, though respondents abbreviate, they pay attention to language mistakes and give importance to accuracy. This goes in tune with observations of some researchers like

Farina and Lyddy (2011) who believe that the phonological approximations of non-conventional spelling and the borrowing of sounds do not indicate linguistic incompetence of users, but rather they manifest an understanding of letter-sound or symbol-sound correspondence. In addition, questionnaire results also reveal significant differences between respondents of different ages and educational levels. People who are less than 30 years old use abbreviations and symbols more than people who are more than 30 years old (see table 124 appendix 25). People with less educational level abbreviate more than people with university degree (see table 125 appendix 25).

4.3.5.2. CMC Cues

Communication in the digital environments is often compared to offline contexts and it is most of the times accused of lacking social presence and social context cues due to the physical absence of the interlocutors. Consequently, digital communication is said to miss important components, which contribute to a successful transmission as well as recognition of messages. Actually, the transmission of meaning may be hindered and it can even be transformed as a result of the absence of nonverbal cues (Hancock & Dunhum, 2001; Derks et al., 2007). Hence, the questionnaire also seeks to investigate to what extent does the physical absence of the interlocutors is considered as an obstacle for an effective communication by the respondents and whether some digital resources such as emojis and images can serve as substitutes. The following table attempts to achieve these objectives.

Table 30: Results of the Respondents' Paralinguistic Practices

Statements		Never	Rarely	Sometimes	Generally	Always	Total
1- The absence of users' voice and facial expressions hinders understanding the real meaning of messages, posts, and comments.	F	30	33	105	50	22	240
	P	12.5%	13.8%	43.8%	20.8%	9.2%	100%
2- I find myself obliged to clarify and explain more when interlocutors find difficulties in understanding the real intentions of my messages.	F	17	46	79	61	40	243
	P	7.0%	18.9%	32.5%	25.1%	16.5%	100%
3- Use of emoji and images is an important addition to the modern means of communication, as they reduce misunderstanding and clarify the real intentions of messages.	F	12	16	57	76	80	241
	P	5.0%	6.6%	23.7%	31.5%	33.2%	100%

*This table presents respondents' answers to statements 2, 3, and 4 in question 8 of the questionnaire.

As shown in the table above, statistics are consistent with previous research findings. Nonverbal cues are crucial for effective communication and their absence may lead to misunderstandings and if the conversation is text-based, interlocutors have to write more to transmit their real intentions, unlike in face-to-face. Actually, this is one of the challenges of text-based communication in the digital environments. The majority (43.8%) answered “sometimes” to the statement “*the absence of users’ voice and facial expressions hinders understanding the real meaning of messages*”, 20.8% answered “generally” and 9.2% answered “always”, 12.5% answered “never” and 13.8% answered “rarely”. That is to say, though the absence of nonverbal cues is critical, not all respondents agree that their absence hinder the understanding of messages.

Interestingly, not only perception that is influenced by the absence of nonverbal cues, but even production is affected as well, since when users recognise that their intentions have not been appropriately understood, they find themselves obliged to write more to clarify their messages. 32.5% answered “sometimes” to the statement “*I find myself obliged to clarify and explain more when interlocutors find difficulties in understanding the real intentions of my messages*”, 25.1% answered “generally”, 16.5% answered “always”, 7% answered “never”, and 18.9% answered “rarely”. In other words, many respondents find themselves in a situation in which they have to write more because their addressees find difficulties understanding their intentions.

Nevertheless, such problems of message transmission and interpretations online can be reduced by the use of CMC cues, such as inserted pictographs (like emojis and images), typographic marks (like exaggerated use of punctuation marks), timing aspects (impression formation is shaped by the time of sending, receiving, and answering messages), etc. (Liu & Ginther, 2001). In this respect, most respondents believe that “*the use of emoji and images is an important addition to the modern means of communication, as they reduce misunderstanding and clarify the real intentions of messages*”; 33.2% answered “always”, 31.5% answered “generally”, 23.7% answered “sometimes”, 6.6% answered “rarely”, and 5% answered “never”. Accordingly, digital communication does not lack nonverbal cues, but rather it has its own version of paralinguistic displays.

Such significant findings lead us to consider important functions of CMC cues, in general, and the use of emoji and images, in particular. As stated in the literature, early research assumes that emoticons are primarily used to supplement the absence of face-to-face nonverbal cues in electronic communication (Baron, 2002; Thurlow et al., 2004; Crystal, 2006a; Derks et al.,

2007). However, respondents in this research believe that the use of emoji and images reduce misunderstanding and clarify the real intentions of messages. Thus, this goes in tune with Rodrigues et al. (2017) conclusion that emoticons (with their different forms) can disambiguate messages and reinforce content. Actually, in addition to their emotional and functional purposes, pictographic symbols have several other strategic as well as linguistic functions.

Moreover, significant differences between the different respondents' age groups and gender groups have been observed as far as the use of emoji and images are concerned. The youngest respondents are the more they believe that the use of emoji and images are important components of online communication (see table 126 appendix 26). Females also tend to use these CMC cues more than men do (see table 127 appendix 26). Indeed, these findings are consistent with the researcher's own observations, people who are more than 35 years old and males insert emojis and images less than youngsters and females do.

4.3.5.3. Use of Digital Resources and the Emergence of New Multilingual Practices

The new communication media have changed the way people use language and communicate with others. In its beginning, the electronic nature of communication was thought to lack social context cues, to bring about linguistic ruin, and to be harmful for thousands of languages that are technologically marginalised. However, with the spread of these media and their embedment in the social life of users, new angles of digital communication as far as language use is concerned float to the surface and require to be taken into account, for there is no limit to human's linguistic creativity. Actually, the technical characteristics of communication technologies became inspiring source for multiple linguistic and digital practices rather than obstacles for language use. Therefore, applied linguistic studies have witnessed a shift toward accounting for Internet multilingual practices, factors behind language choice, and the functions and meanings these practices have in their specific digital context in which they operate (Leppänen and Peuronen, 2012: 389 quoted in Tagg, 2015: 130).

For instance, due to digital resources, users can code-switch even if they are not proficient in different languages, as they can share or insert expressions, pictures, videos, friends' posts, etc. written in foreign languages (Androutsopoulos, n.d. cited in Tagg, 2015: 130). So, even those who are considered as monolinguals can experience and do things with different languages (Barton and Lee, 2013). In addition to that, people use online translators when they come across new words (ibid) and they also use the words suggested by the mobile phone while typing the message. The following table contains items that aim to show these emergent

multilingual practices as a result of the digital resources and interaction possibilities provided by the web.

Table 31: Results of the Respondents' Linguistic and Digital Practices

Statements		Never	Rarely	Sometimes	Generally	Always	Total
1- I use in comments and sharing others' posts some languages that I do not use a lot offline (like Standard Arabic and English).	F	57	35	62	54	31	239
	P	23.8%	14.6%	25.9%	22.6%	13%	100%
2- I copy-paste ready-made expressions and paragraphs in posts and comments.	F	71	41	76	35	19	242
	P	29.3%	16.9%	31.4%	14.5%	7.9%	100%
3- When I come across difficult foreign words, I translate them using brows engines or electronic dictionaries.	F	23	26	66	52	68	235
	P	9.8%	11.1%	28.1%	22.1%	28.9%	100%
4- I make use of the words suggested in the mobile in writing to avoid mistakes of spelling.	F	43	31	77	45	46	242
	P	17.8%	12.8%	31.8%	18.6%	19%	100%

*This table presents respondents' answers to statements 7, 11, 15, and 10 in question 8 of the questionnaire.

As shown in the table, many respondents "*use in comments and sharing others' posts some languages that they do not use a lot offline (like Standard Arabic and English)*": 25.9% answered "sometimes", 22.6% answered "generally", 13% answered "always". While, 23.8% answered "never", and 14.6% answered "rarely". Actually this is concordant with findings of language choice (see item 4.3.4.1. above), which show for instance that SA which is not usually used in informal situations offline, is widely present on Facebook. Even the use of English is spreading on Facebook, though it has very restricted usages by the Algerians offline.

In fact, using languages on Facebook does not always require users to be competent in all of them as many digital resources and practices make it possible, such as tagging others, sharing posts, inserting written pictures and videos, and copy-paste of others' messages and posts. The statement "*I copy-paste ready-made expressions and paragraphs in posts and comments*" aims to shed light on one of these digital practices that make language use quite different from offline contexts. The majority (31.4%) answered "sometimes", this is expected since they do not copy-paste all the time. Most respondents do not copy-paste content, they prefer may be to produce their own. 29.3% answered "never" and 16.9% answered "rarely". Yet, 14.5% generally copy-paste and 7.9% always do so. Actually, these results are consistent with the observations of the researcher since though copying ready-made content is widely present on Facebook, producing

new content is dominant. Besides that, considerable differences have been noticed as far as the educational level of respondents is concerned. The more they are educated the less they copy-paste content in their comments and status updates, and vice versa (see appendix 27).

In addition to the abovementioned multilingual encounters (use of languages that are not usually used offline and that people are not really competent in as well as copy-paste of content that can be written in different languages), online translators, electronic dictionaries, and words suggested by the mobile phone while typing messages also characterise communication in the digital age and make it so different from face-to-face multilingual practices. Indeed, the majority (28.9%) answered “always” to the statement “*When I come across difficult foreign words, I translate them using brows engines or electronic dictionaries*”, 22.1% answered “generally”, 28.1% answered “sometimes”. Whereas, 9.8% and 11.1% answered “never” and “rarely” respectively. Similarly, most respondents “*make use of the words suggested in the mobile in writing to avoid mistakes of spelling*”; the majority (31.8%) answered “sometimes”, 18.6% answered “generally”, 19% answered “always”, 17.8% answered “never”, and 12.8% answered “rarely”. Moreover, practices associated with multilingualism have been extended online since people use digital resources such as scripts, spelling, and symbols in creative ways (Androutsopoulos, n.d. cited in Tagg, 2015).

4.3.6. People’s Attitudes towards the Impact of the Internet on Languages in Algeria

This table contains eight statements that aim to investigate respondents’ attitudes towards the impact of Facebook on the languages that are widely used by the Algerians namely Arabic, Berber, French, and English.

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Table 32: Respondents' Attitudes towards the Impact of the Internet on Languages in Algeria

Statements		I strongly disagree	I disagree	sometimes	I agree	I strongly agree	Total
1- Facebook contributed to the spread of Colloquial Arabic at the expense of Standard Arabic.	F	8	26	31	100	75	240
	P	3.3%	10.8%	12.9%	41.7%	31.3%	100%
2- Facebook gave new domains to Standard Arabic that has previously been used only in official, academic, and religious situations.	F	6	34	66	94	39	239
	P	2.5%	14.2%	27.6%	39.3%	16.3%	100%
3- Facebook gave the Arabic language an opportunity to cope with modernity.	F	18	53	61	80	28	240
	P	7.5%	22.1%	25.4%	33.3%	11.7%	100%
4- The language of Facebook is dangerous on the Arabic language.	F	6	42	47	66	78	239
	P	2.5%	17.5%	19.6%	27.6%	32.6%	100%
5- Facebook contributed to the use and spread of Berber.	F	32	86	59	36	23	236
	P	13.6%	36.4%	25%	15.3%	9.7%	100%
6- Facebook contributed to the spread of Arabic at the expense of Berber.	F	31	107	36	45	14	233
	P	13.3%	45.9%	15.5%	19.3%	6%	100%
7- The status of Arabic has been reduced because of the over use of foreign languages especially English, the language of science and technology.	F	11	61	61	66	41	240
	P	4.6%	25.4%	25.4%	27.5%	17.1%	100%
8- The use of French has been reduced amongst the Algerians in Facebook due to the spread of English in social media.	F	15	71	66	54	31	237
	P	6.3%	30%	27.8%	22.8%	13.1%	100%

*This table presents results of the respondents' answers to question 9 of the questionnaire.

The majority of respondents answered “*I agree*” (41.7%) and “*I strongly agree*” (31.3%) to statement (1): “*Facebook contributed to the spread of Colloquial Arabic at the expense of Standard Arabic*”. Similarly, most of responses “*agree*” (27.6%) and “*strongly agree*” (32.6%) with statement (4): “*The language of Facebook is dangerous on the Arabic language*”. These findings show that people still hold negative attitudes towards the use of social media, which are considered as a threat to the Arabic language, especially due to its strong ties to Islam. The different dialects of the Arabic language that are spoken by the Arabic-speaking communities as mother tongues are widely used on the Internet because of the informal nature of most forms of online communication, bearing in mind that these dialects are still negatively perceived by their own people. That is, many see that the Internet is an arena that promotes the use of colloquial Arabic at the expense of SA. In addition, the spread of the Arabic dialects online has been coined with the emergence of LA, which is believed to be a form of linguistic imperialism and it ruins the complexity of the Arabic grammar and structures, especially because of the use of shortenings and abbreviations.

39.3% of the research respondents answered “*I agree*” to statement (2): “*Facebook gave new domains to Standard Arabic that has previously been used only in official, academic, and religious situations*” and 33.3% also answered “*I agree*” to statement (3): “*Facebook gave the Arabic language an opportunity to cope with modernity*”. That is, people see that Standard Arabic is no longer restricted only to religious and literary fields of discourses but it is also used in many new language situations on Facebook. This has given it the chance to cope with modern means of communication. Actually, respondents’ attitudes in these two cases go in tune with findings about language choice mentioned above, as results indicate that SA is competing the other varieties used in Algeria in many domains of use and it is not only used in its traditional situations (see items 4.3.4.1. and 4.2.3.3.).

As far as the use of Berber on Facebook is concerned, 36.4% of respondents “*disagree*” with statement (5): “*Facebook contributed to the use and spread of Berber*” and 45.9% “*disagree*” with statement (6): “*Facebook contributed to the spread of Arabic at the expense of Berber*”. In other words, according to the respondents, though Facebook does not promote the spread of Berber, Arabic is not spreading at its expanse.

English, being a global language, has been given a floor to spread to Algerian usages particularly on Facebook; since though it is given priority for foreign language education, it is not widely used for communication offline. Yet, it is competing even world languages like Arabic and French due to the fact that it has always dominated the field of technology and it is considered as the lingua franca of the Internet. For that reason, the research before hands also seeks to investigate people’s attitudes towards the status of Arabic if compared to the English language on Facebook. Most respondents (27.5%) answered “*I agree*” to statement (7): “*The status of Arabic has been reduced because of the over use of foreign languages especially English, the language of science and technology*”. So, people are aware of the dominance of English in the fields of science and technology, from which Arabic has been expelled.

The global spread of English that has been mainly fostered by science and technology is said to threaten not only minor languages but even world languages like French. This language has long installed itself as a language of prestige and education in Algeria, recently, however, its position has been reduced in favour of English. The last statement in the table above: “*The use of French has been reduced amongst the Algerians in Facebook due to the spread of English in social media*” aims to know people’s attitudes towards the issue under question. The majority “*disagree*” with the statement (30%), 6.3% “*strongly disagree*”, 22.8% “*agree*”, and 13.1%

“strongly agree”. In other words, these results point to the fact that English is competing French in Algerian, at the same time it is still maintained by people. Further details about such issues have also been tackled in discussions of data obtained from the semi-structured interviews.

4.4. Discussion of the Interview Findings

One of the tools that have been used for data collection is semi-structured interview for the attainment of the research objectives, which aims to investigate the Algerian sociolinguistic situation on Facebook. It is part of the user-based tools used for data collections (an ethnographic technique) as it provides a direct interaction with the research participants. Interviews with the participants lasted between 30 minutes to two hours with each one of them. Interviews were mediated via two means: 1) the use private messaging of Facebook Messenger, conversations were primarily text-based except with two participants who supplied their textual answers with the use of vocal memos (one of the digital affordances of Messenger) for clarifications ⁽⁷⁾. Text-based interviews, in this case are so helpful due to the persistent nature of messages; i.e. conversations are preserved and it is possible for the researcher to use them at any time. 2) The use of mobile phone conversations with two participants, a female and a male. The conversations were recorded for use, thanks to the digital facilities provided within the device. Interviews lasted from September 22th to October 1st, 2020.

The interview serves as a supplement to the other data sources: online observation, questionnaire, and screen data. Its questions, topics, and participants have been selected after the collection and analysis of all other (aforementioned) screen as well as user-based data because the interview aims primarily to seek explanations and clarifications of some sociolinguistic phenomena observed on Facebook and obtained from its users throughout the different phases of the research. Hence, twelve Algerian Facebook users have been chosen to participate in the interview. They represent different sociolinguistic categories because they belong to different social backgrounds. Details of their profiles are provided in the table below:

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Table 33: Interviewees' Profile

Interviewees	Gender	Age	Region	Ethnicity	Education	SNSs Used	Languages Used on Facebook
1	Female	23	Blida	Arab	Master in English	Facebook, Instagram, WhatsApp	English, French, Arabic
2	Male	35	Batna	Berber (Chaoui)	Energy Engineer	Facebook, LinkedIn, Instagram, WhatsApp	Arabic, French, English, Russian
3	Male	38	Om-El-Bouaghi	Arab	1 st grade secondary school	Facebook, Instagram, Skype	Arabic, French, English, many other languages through the use of online translation
4	Male	31	Djelfa	Arab	Bac+2	Facebook, Viber, WhatsApp	Arabic, French
5	Female	29	Tipaza	Arab	Master in Architecture	Facebook, Instagram, Viber, WhatsApp, Snapchat, TikTok	Arabic, French, English, Spanish, Turkish
6	Male	31	Tlemcen	Arab	Licence in Human Resources	Facebook, WhatsApp, Viber	Arabic, French, English
7	Female	23	Bouira	Berber (Kabyle)	Master in English	Facebook, Instagram, WhatsApp, Zoom	English, Arabic, French, Kabyle
8	Male	36	El Menia	Berber (Zenata)	3 rd grade secondary school	Facebook, Twitter, Instagram, WhatsApp	Arabic, French, English
9	Male	39	Ghardia	Berber (Mozabit)	3 rd grade secondary school	Facebook, Viber, WhatsApp	Arabic, English, French, Mozabit, Kabyle
10	Male	33	Timimoun	Berber (Zenata)	Licence	Facebook, WhatsApp, Instagram, Azar	Arabic, Zenata, English
11	Male	26	Tamenraset	Berber (Touareg)	3 rd grade secondary school	Facebook, WhatsApp, Instagram, Snap Chat	Touareg, Arabic, French
12	Male	25	Ain Amgal Tamenraset	Berber (Touareg)	2 nd grade middle school	Facebook, WhatsApp, Instagram	Arabic, Touareg

*The table presents interviewees background information, that include their gender, age, region, ethnicity, educational level, and SNSs as well as the language varieties they use on Facebook.

Results of the semi-structured interviews, presented in the table above, reveal that the respondents' social background is very rich: their age is arranged between 23 to 39, they belong to different regions of Algeria (from the centre, the east, the west, and the south), and different ethnic groups (Arabs, Kabyles, Chaouia, Mozabits, Zenata, and Toaureg). In addition, they have different educational levels and they use different language varieties ⁽⁸⁾ in the different SNSs they use.

Obviously, all interview participants are active users of Facebook, the site of the data obtained for the research. This SNS is still dominant amongst Algerians (see item 3.4.2.). However, this heading may come to an end in few years because Instagram seems to challenge Facebook on the first rank of SNSs' usage by the Algerians, especially amongst females who are more interested in Instagram due to the multifarious seducing services it provides (all female respondents said they prefer and use it the most). Besides, all participants use at least three digital platforms of communication. This point to the integration of the Internet with its multiple affordances, mainly communication media, into people's everyday life. Accordingly, the increasing interest of people in the virtual world is still attracting curiosity of researchers to investigate the interplay between offline and online practices, including linguistic usages. That is to say, these results reinforce the significance of researching the Algerian sociolinguistic situation on Facebook, one of the digital environments of communication, in the light of the fast-changing digital features. In order to attain this objective, the following research topics are tackled via qualitatively analysing and interpreting the interview results (quantitative information are also provided when necessary): 1) Multilingual practices, 2) script choice, 3) impact of Facebook on its users' linguistic abilities, and 4) linguistic practices of the Berbers.

4.4.1. Multilingual Practices

As it is revealed in the table above, multilingualism is dominant amongst the research interviewees, their usage rates of language varieties are shown in the table below:

Table 34: Languages Used by the Interviewees on Facebook

Languages Uses	Arabic	Berber	French	English	Other Languages
Frequency	12	5	10	9	3
Percentage	100%	41.66%	83.33%	75%	25%

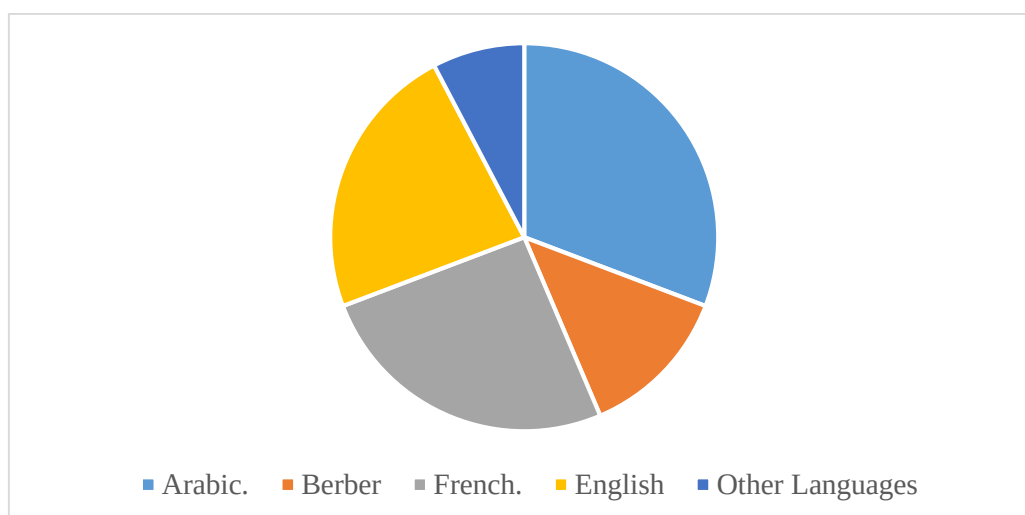


Figure 13: Representation of the Languages Used by Interviewees on Facebook

The multilingual nature of the Algerian sociolinguistic situation on Facebook has also been confirmed by the interview results, since the languages used offline have been transmitted to the “Blue World”. Arabic is the dominant language as it is used by all interviewees regardless of their ethnic belonging, followed by French which still constitutes an undeniable portion of the Algerian linguistic practices and this has been also maintained on Facebook. Again, French is mainly used by females who use it as the major means of interpersonal communication since they always tend to use the most prestigious speech forms. Interviewee 1 uses it all the time mixed with Arabic, interviewee 4 also uses French because she is used to it as she studied it since primary school, and interviewee 7 says that she mainly uses French with her brother and some teachers.

Rivalry between the world languages (French and English) seems to sharpen online, as Internet is widely believed to be an arena for the global spread of its lingua franca. English is used hand in hand with Arabic, French, and Berber which constitute indispensable parts of the linguistic identity of the country. It is not only used by people who studied it as a speciality at the university, but it is also used by interviewees with little education (like participants 3, 8, and 9) or interviewees who studied other specialties at the university (like participants 2, 5, 6, and 10). That is, English is seeping gradually to Algerians’ everyday linguistic behaviours thanks to Facebook (these findings are consistent with the observation and questionnaire results in items 4.2.3.4. and 4.3.4.1. respectively). This raises questions as far as the future of its position in the country’s linguistic landscape is concerned, especially that it is used in innovative ways on Facebook interpersonal communication and it is sometimes adapted into

the linguistic and cultural structures of its users leading to many emergent sociolinguistic phenomena such as linguistic borrowing, interference, and code-switching that have always been monopolised by French. Hence, is English being indigenised as much as French did?

Furthermore, participants reveal intensive multilingual practices in the different writing spaces on Facebook. Offline linguistic usages like code-switching, code-mixing, and linguistic borrowing have not only been transmitted to the digital world but they are used for text-based purposes. According to the interviewees' responses, switching between codes occurs either according to the interlocutors in different conversations or within the same conversation in the same writing space. The former refers to code-switching, while the latter may include inter-sentential, intra-sentential, extra-sentential code-switching, and linguistic borrowing. Such practices are dominant on Facebook because it mirrors language use in ordinary usages offline, on the one hand, and it also reflects the complexity of the digital context, on the other. Interestingly, this SNS made it possible for people who live in the less multilingual areas to be increasingly exposed to foreign language, like the case of people living in the Sahara region, who were always known of their Arabic education and relatively lack of competence in foreign languages. However, interview results reveal that most of them use foreign languages in a way or another ⁽⁹⁾.

All interviewees expressed that they use the different languages in different language situations (according to the interlocutors and Facebook writing spaces), the same result obtained from the questionnaire findings (see item 4.3.4.). This may have insights into the different cases of code-switching (mentioned in details in item 4.2.2.1.), since Facebook users can communicate with different people and use different language varieties in different Facebook writing spaces relatively at the same time. Interviewees mentioned mainly that their choice of language depends on the people they use language with and the kind of relationship between them. Accordingly, language choice on Facebook has many similarities with offline situations. These are some answers of the research participants ⁽¹⁰⁾:

Interviewee 1: *I use English with my best friend and [with] my binominal, I use French [mixed] with Arabic with some of my friends, and I use only French with a Friend who does not speak Arabic.*

Interviewee 7: *with my best friends, we speak only English, with my sisters I speak Arabic and sometimes Kabyle, and French with my brother and some of my teachers.*

Interviewee 6: *[communication] can be with a workmate, a friend, or a stranger; in this case, it is better if the language used is academic because this maintains a kind of a ‘wall’ of respect.*

Interestingly, two phenomena have been obtained from the interview participants as far as language use is concerned. On the one hand, people sometimes use some languages on Facebook that they don’t usually use offline like the case of interviewee 2 who uses Russian only on SNSs with his Russian friends, while he never uses it with Algerians offline. On the other hand, others use some languages on the different SNSs that they themselves do not master, via the use of online translators. This is the case of interviewee 3, who have little educational level and little commend of foreign languages but he says that he uses French, English, and many other languages because he talks to persons from Germany and Poland. Similarly, interviewee 8 also uses French and English with Friends from France, Switzerland, and USA though he is not really competent in these languages. Besides, interviewee 4 also uses some languages that she never uses offline, like some English, Spanish, and Turkish words mainly in status updates though she only comprehends some vocabularies acquired from series and movies.

Accordingly, language use online is not necessarily determined by the educational level of people, as they can use different languages even if they do not master them due to the digital affordances, mainly through online translation. Besides that, interviewees exhibit considerable differences across genders, especially as far as the purposes of language use is concerned. While females use different languages to communicate with friends and family members, most males use foreign languages for intercultural communication mainly to interact with people from foreign countries (this is mainly the case of interviewee 2, 3, 6, and 8: they communicate with people from Russia, Germany, Poland, Spain, France, USA, and Switzerland in addition to Morocco and Tunisia). This might be due to the fact that many Algerians, particularly men, wish to migrate to developed countries because of the difficult living conditions in the country. In addition, research on SNSs’ usage differences between males and females reveal that they employ them for different purposes; while the former lean for wider networking and establishing new relationships, the latter tend to maintain their already existing social networks.

4.4.2. Script Choice

Interviewees’ script choice reveal that the Arabic, Latin, and both scripts are equally used; 33.33% for each one of them. Results are shown in the table below:

Table 35: Interviewee’s Script Choice on Facebook

Scripts	Arabic	Latin	Both Scripts	Total
Frequency	4	4	4	12
Percentage	33.33%	33.33%	33.33%	100%

These findings indicate once more the shift towards the Arabic script since the use of Latin to represent both of Arabic and Berber was dominant at the beginning of the spread of online text-based communication. This shift may have several explanations (tackled in details in item 4.3.2.1.); the Arabic script is used by interviewees 2, 8, 10, and 12 who belong to the Berber groups. This may have to do with their orientations and ideological considerations. On the other hand, Latin script is used by 33.33% of the participants; interviewees 1, 4, 5, and 7. This reveals that maintenance of Latinised script is not only due to ethnicity, gender, and educational level, since interviewee 4 is an Arab male of a less educational degree if compared to some other respondents. As for the last case, 33.33% of the participants (interviewees 3, 6, 9, and 11) use both of Arabic and Latin scripts alternatively on Facebook. According to interviewees 3 and 6, script choice depends on the script used by their addresses, interviewee 9 uses the Arabic script to represent Mozabit and Latin script to communicate with Kbayles because they use Latin script, and interviewee 12 uses the Arabic script to write in the Arabic language but he considers Latin script to be more suitable for Touareg.

In an attempt to infer what are the main factor that led to the maintenance of Latin-scripted representation of both of Arabic and Berber varieties, the conclusion obtained is that script choice is indeed the result of gender, education, ethnic belonging, etc. (mentioned in details in item 4.3.3.) but it is also because it is a matter of habit. Actually, it is maintained because respondents are used to it and the shift observed towards the Arabic script is at its beginning since these Facebook users constitute the first generation of LA usage as it spread mainly by the beginning of 2010. Actually, natural language change always takes time.

4.4.3. Impact of Facebook on its Users’ Linguistic Abilities

Facebook, in addition to other SNSs, are always thought to influence negatively language use as a result of the informal, text-based, instantaneous, and interpersonal nature of communication. For that reason, the interview also aims to investigate people’s opinions about the impact of Facebook on their linguistic abilities. Most of the interviewees believe that it has influenced them positively as it helped them acquire foreign languages, improve their level in writing and learn vocabularies in many language varieties.

Interviewee 1: *I think that Facebook helped me to ameliorate my level (learning vocabulary .. excessive use of it).*

Interviewee 5: *Facebook and Internet in general influenced me negatively, my language skills became prosaic because you stop reading and since I use abbreviations a lot, I started committing numerous errors. For instance, previously I never committed mistakes of orthography because I don't concentrate when reading words, I understand their meaning from the first letters. In addition, you do no longer use the language correctly, you deviate it. For me, I lost my language abilities.*

Interviewee 6: *the impact of Facebook on my language abilities is positive, of course. It improved the languages I use, it enables me to practice languages and since I got the habit to write mistakes are reduced.*

Interviewee 8: *Facebook helped me a lot. For instance, communication with a friend from USA facilitated for me learning many words in English.*

So, only interviewee 5 who believes that Facebook has influenced her negatively because the excessive use of abbreviations, over use of Facebook, lack of reading, and lack of concentration while reading text messages as she got acquainted with understanding words from reading the first letters, etc. all these factors make her commit many grammar errors. Interviewees 1, 6, and 8, however, see that Facebook was so helpful for them, since it contributed to the amelioration of their level in foreign languages through the acquisition of new vocabulary, practicing them, and reduction of language mistakes because of the text-based nature of communication. Another interesting topic to tackle is the case of Berber, which constitutes an important portion of the research agenda.

4.4.4. Linguistic Practices of the Berbers

During the different research stages, especially the observation phases and the questionnaire, considerable differences and characteristics of the use of Berber have been noticed. Unfortunately, the issue couldn't have been tackled from a micro-sociolinguistic perspective as a result of the researcher's lack of competence in the Berber varieties, except in few occasions in which the participants provided some examples. In this vein, more research about the case is highly recommended. However, many themes related to Berber language use on Facebook have been tackled as an attempt to clarify some of the phenomena observed

throughout the research. As it is revealed in table 33 above, seven interviewees identify themselves to be Berbers:

- 1- interviewee 2 belongs to Chaouia group who are concentrated in the North eastern part of Algeria,
- 2- interviewee 7 is a Kabyle girl from Bouira, which is part of the Kabylia region in North central areas of the country,
- 3- interviewee 8 who identifies himself as a Berber of the Zenata group that is concentrated in some central regions of the large Algerian Sahara. However, he neither speaks nor understands Zenata dialect but his parents, ankles and ants do. This is one of language shift situations that many Berbers experienced in which old people speak and understand the language while youngsters do not (Ennaji, 2005),
- 4- interviewee 9 is a Berber from the Mozabit community the central Sahar region,
- 5- interviewee 10 from Timimoun in the south western region of the country which is mainly inhabited by Zenata Berbers, and
- 6- interviewees 11 and 12 are from the Touareg Berbers who live in the far southern areas of Algeria (Tamenrast).

Considerable differences have been found between these different Berber respondents in terms of language use, choice, and attitudes. Interviewees 2 and 8 said they never use Berber on SNSs, the Kabyle girl uses Berber sometimes with her sisters in private messaging and rarely in comments, while the others (who speak Zenata, Mozabit, and Touareg) use their mother tongue all the time alongside other languages (namely Arabic, English, and French) with people who do not understand their mother tongues. At this level, it is also important to know how do Berbers represent their varieties on Facebook. This section tackles: 1) use of Berber, 2) Berbers' script choice, 3) Berbers' attitudes towards the impact of Facebook on their mother tongues, and 4) is Facebook leading to Berber language shift or maintenance?

4.4.4.1. Use of Berber

Some Berber respondents said that they do not use their mother tongue on Facebook a lot, they sometimes use it in private messaging or in comments mainly because of its different

linguistic features that make it difficult to be used. Actually, even offline, most Berber varieties are only used for oral communication, they are rarely employed for written purposes and they do not even have a common script due to ideological, historical, political, and religious factors. However, as a result of the interpersonal, informal, and text-based nature of communication in most digital environments, oral-only varieties (like colloquial Arabic and Berber for instance) are introduced to the written media of discourse, even though Berber's usage is not dominant. In doing so, people often draw on the semiotic and digital resources available on the sites to represent themselves, this has led to the emergence of LA for example. Hence, it is interesting to explore what script(s) do Berbers use to represent their vernaculars.

In spite of the recent constitutional amendments and attempts to fully standardise the language (the declaration of Berber as an official language alongside Arabic was in 2016), it is not clear yet which script or which variety will be selected as a standard (see details in item 1.4.1.2.). In other words, Berber people still do not have a common written form ⁽¹¹⁾ to use and they mostly rely on transliteration (typing words in the way they are pronounced), leading hence to idiosyncratic spelling forms; like all other vernaculars which do not have a written code. Besides that, Facebook, in addition to other SNSs, join together people from different backgrounds and language choice is determined by the people with whom Facebook users communicate. That is to say, since Berbers may communicate with others from other ethnic groups, they are obliged to use the language they understand; that's why the use of Berber is sometimes reduced online.

In an attempt to uncover the use of these varieties on Facebook by the Berber respondents, considerable differences across them have been revealed. Their answers are classified into three categories according to their attitudes as well as choice of language on Facebook. While interviewees 2 and 8 say they never use their mother tongue on the site, Interviewees 7 and 10 say they sometimes use it, and interviewees 9, 11, and 12 answer that they always use it with people from their race or people who understand them.

Interviewee 2: *I never use [my mother tongue] on SNSs, we use Arabic most of the time though we are Chaouia because it is difficult in writing, one word takes time and effort, and it contains very long words like the word "تشتيغيشم" for instance which means "نحبك" (I love you). Arabic is easier than Chouia in writing.*

Interviewee 8: *No, it [Zenata] is only spoken and they can't use it on Facebook because they don't know how to represent its speech sounds.*

Interviewee 7: *Not really, in Facebook I rarely use Kabyle but in real life I do it a lot because it is hard, very hard. There are some sounds in Kabyle that do not exist in other languages, you can't write them and there is no Kabyle keyboard. For example, the word "amikh" (which means how), there is no letter that can exactly represent it. It is not /kh/ but a mixture between /kh/ and /h/.*

Interviewee 10: *[On Facebook] I use Arabic, English (sometimes) and Zenata represented in the Arabic alphabet. I use Arabic more because most of my Facebook friends master Arabic (I mean colloquial Arabic), in addition, it is easier for me to write.*

Interview 9: *I use it [Mozabit] with Mozabi people and I use Kabyle with Kabyles.*

Interviewee 11: *we use Arabic and French with people who do not understand Touareg and we use our mother tongue [Touareg] with the ones who speak it.*

Interviewee 12: *I use [on Facebook] Arabic and Touareg only.*

So, interviewees 2, and 8 declare that the use of Berber varieties is not dominant since they tend to use other language varieties to communicate on Facebook. They mainly explain this phenomenon by the technical constraints because on the one hand Berber is not represented in the digital media and on the other hand most Berber varieties that constitute the mother tongues of people are only spoken. In other words, due to the fact that they do not have a written tradition, they find difficulties to represent it online. Interviewees 7 and 10 use Berber alongside other languages (mainly Algerian Arabic) because most of their interlocutors do not understand their mother tongues. Whereas, interviewees 9, 11, and 12 always use Berber with the ones who master it.

Hence, many factors may contribute to lack of using Berber on Facebook amongst some groups (especially Zenata and Chaouia). First, most Berbers are equally competent in other varieties such as Arabic or French (especially the youngsters because of education and who are concerned with the use of social media more than old people who might be monolinguals and who mostly do not use SNSs), so they use these languages instead. Second, they interact on Facebook with people who do not understand Berber, that's why they often accommodate to the others' language and style or at least they use a lingua franca (French in some cases). Third, there are several Berber varieties in Algeria that differ in vocabulary, grammar, and accent to

the extent of unintelligibility most of the times; i.e. they find difficulties to understand each other, for that reason they use a language in common (like in the answer of interviewee 10). Fourth, Berber dialects are spoken by minorities and they only represent local culture and identity; that is, they have very limited usages and they are neither used for wider communication (the main aim of SNSs) nor used for utilitarian functions like science, technology, and research (as interviewee 2 comments). These factors, among others, might hinder the development of a writing system for some Berber varieties unlike other spoken-only dialects, such as colloquial Arabic, for instance, that succeeded to adapt Latin script to its sound system as well as innovating many strategic linguistic practices in spite of the striking differences between Arabic and Latin scripts (see item 2.9.1.).

However, the situation of Touareg, Mozabit, and Kabyle differs tremendously, as interviewees who belong to these ethnic groups exhibit extraordinary pride, high self-esteem, and strong ties to their ethnic specialty and belonging. For instance, one of the Taoureg respondents says in this respect:

Interviewee 11: *Taoureg is the dominant language in the four [Touareg] districts ⁽¹²⁾, as it is said “we know each other”, we are siblings and we do not consider geographical borders. Our rights are preserved as long as we are together [united]. The scarf is our passport.*

Such feelings of belonging to a group make people maintain their language and culture to symbolise their identity. That’s why these groups tend to use their mother tongues as a major vehicle of communication on Facebook. At this level, it is also of a paramount importance to know the Berber respondents’ scriptural practices to represent their mother tongues on Facebook and whether this sense of belonging has to do with script choice as well.

4.4.4.2. Berbers’ Script Choice

As expected, the ethnic belonging of the Berbers is the major factor that determines their selection of scripts. Interview responses of the Berbers is so consistent with offline choice of scripts, as Ennaji (2005) believes that this is determined mainly by political and ideological orientations. The Chaoui interviewee observes that the Arabic script is dominant amongst people from Chaouia region; the Mozabit and Zenata use the Arabic script as well (to represent their mother tongues); Touareg respondents use both scripts, while the Kabyle girl uses Latin script only. Their answers to the question: **in case you use your mother tongue, what script do you use?**

Interviewee 2: *“[in case we use our mother tongue on Facebook,] we use the Arabic alphabet [to represent Chaouia] because it is nearer to Arabic, whereas it is difficult to find equivalent letters in Latin script, this is almost impossible”.*

Interviewee 7: *Not really, I am not good in that [the use of the Arabic script to represent Kabyle]. I feel so heavy to use it. The last time I used the Arabic script was when I typed the abstract [of the master dissertation] in the Arabic language, I felt so weird.*

Interviewee 9: *I use Latin script with the Kabyles and the Arabic script with Mozabits [because] Kabyles like French and encourage it, [while] Mozabits like Arabic.*

Interviewee 10: *There are Zenata people who use Latin script [to represent Zenata dialect], even in Algerian Arabic, many use Latin script. I personally use the Arabic script, I learnt it like this. Actually, few Zenata use Latin script because it is heavy [difficult to use because they are not acquainted to it], whereas Arabic script is much easier for understanding.*

Interviewee 11: *we mostly use the Arabic alphabet [to represent Touareg] and we understand it among us. Yet, Latin script is a bit clearer and easier to understand. There are some Touareg sounds and words that cannot be represented in Arabic; in Latin we can construct them together. For instance, the word “Eshenga” or “الينجا” (which means “الأعداء”), it is nearer to our language when it is written in French letters than in the Arabic letters.*

Interview 12: *In Facebook both Arabic and French scripts are used [to represent Touareg]. For me, I use Arabic alphabet because I am used to it but there are [Touareg] people who use Latinised script, like in Arabic.*

Interviewees 2 and 7's answers are so similar to questionnaire findings which represent both Kabyle and Chaouia communities (see item 4.3.2.2.). However, for the case of interviewee 7, it is not only her Kabyle identity which determines her script choice because this might be the result of gender identity or it is a matter of habitual practices, since this the case of many other interviewees (not Berbers) who use Latinised script (see details in item 4.4.2. above).

Indeed, due to the fact that Facebook provides opportunities for people of different backgrounds to meet in the virtual world, factors of script choice have been extended to include also the interlocutor that the Facebook user communicates with as well as the user's social belonging (mainly education and gender). For instance, interlocutor 9 often uses Latin script when he communicates with Kabyles, though he uses Arabic script to represent Mozabit;

bearing in mind that Mozabits are widely known of their leaning towards the Arabic language because of religion. Besides, the script used is also determined by the users' educational level; interviewee 12 uses the Arabic alphabet, while interviewee 11 prefers Latin script in writing Touareg due to the fact that the former has middle-school educational level and has little competence in French whereas the latter works in a touristic agency that's why his competence in French is better though he only has a secondary-school educational level. Thus, script choice by the Berbers on Facebook is not always determined by political and ideological considerations. Interestingly, such practices in addition to the constant contact of Berber with other languages on Facebook attract controversial attitudes amongst the Berber respondents as far as its impact on Berber is concerned.

4.4.4.3. Berbers' Attitudes towards the Impact of Facebook on their Mother Tongues

It is clear that some Berbers' language use on Facebook has been reduced if compared to their offline use because they meet different people who speak different languages online. Such contact may lead to dramatic consequences in the long run since this contact may make Berbers use other languages instead of or in addition to their mother tongues leading to gradual change in the authentic linguistic features and lack of competence in Berber if people do not strive to maintain their language. As far as this issue is concerned, the Berber interviewees' answers to the question, **what do you think of the impact of Facebook on your mother tongue?** are explained bellow:

Interviewee 2: *SNSs have positive as well as negative impact, as this leads to language change that can be both beneficial to the dialect or the opposite even if in low rates.*

Interviewee 7: *[the impact of Facebook on Kabyle is] positive actually, because Facebook allowed Berber people to use Kabyle and Arabic people to be more curious about the language. For example, once I wrote a comment in Berber, a girl asked me what that supposed to mean and I translated my message.*

Interviewee 8: *No, [Facebook does not affect negatively Zenata because] in the areas where it is used, people make sure to transmit it to the new generations.*

Interviewee 9: *Facebook may have negative impact on Mozabit due to the foreign words borrowed to it.*

Interviewee 10: *[Facebook] can be included within the negative influences of technology (including TV and Internet). Youngsters do not spend time with parents and elders to communicate. That is to say, breakdown of families, i.e. there will not be enough communication. Now, everyone talks to his mobile phone and there is no adequate transmission of the language as it should be, except essentials. Therefore, many terms in Zenata disappear or will be Arabised [usage of Arabic terms instead], especially vocabularies that are not used a lot or word-naming [labels / lexemes] that do no longer exist. As for the positive impact, if there were associations that care about this domain, spread of the language and transmitting it as well as working on coordinating the differences between words and labels across the different regions [which use Zenata]. For your knowledge, there are some differences of Zenata here in the area, sometimes in the construction of words and sentences, even names of things [vocabulary] differ from one region to another.*

Interviewee 11: *Facebook gave me the chance to know people like me, from my race. In spite of the far distances between us, it [Facebook] joined us together and let us know each other. [for instance], there is a Facebook group that broadcasts Touareg news and their interests and there are some who teach Touareg and our own writing system, Tifénagh ⁽¹³⁾.*

Interviewee 12: *Facebook cannot influence Touareg negatively because we use it everywhere, even in Facebook [we use] Arabised Touareg.*

That is, the research participants' attitudes differ considerably, as they are arranged between positive and negative points of views. These answers are strongly tied to their orientations as well as Berber use on Facebook. In other words, people who tend to use Berber on Facebook have positive attitudes towards its impact (the case of the Kabyle girl and Touareg respondents), while people who use Arabic instead or mix between languages, have negative attitudes (the case of the respondents from Chaouia, Zenata and Mozab regions).

4.4.4.4. Is Facebook Leading to Berber Language Shift or Maintenance?

As has been explained in chapter one (see item 1.4.1.), Berber is one of the oldest still-living languages in the world, that could resist in spite of all factors of eradication it faced throughout history (including the different occupations of many civilisations in North Africa, the Islamisation and Arabisation of the area, rural exodus and urbanisation, among others). Among the factors that contributed to this resistance is that Berbers always sought refuge in the most isolated regions (they have also been expelled by the invaders who settled in the most

fertile lands, it was not always their choice), as they occupy mainly mountainous and far areas (like Aoures, Djurdjura, Hoggar, and the Sahara). They preferred to live in areas with difficult living conditions to protect their cultural identity from erosion. However, Berber started to leave-behind its historical isolationism gradually in the modern era as a result of many factors such as education, urbanisation, tourism ⁽¹⁴⁾ and, recently, communication in the digital environments. Berbers can no longer avoid exposure to other languages, cultures and change because these factors led to unprecedented, constant, and intensive language contact situations. In a series of questions asked to interviewee 2, he expressed his fears about the resistance of Chaouia dialect in front of the recent social changes. The interview has been inserted bellow:

- **Don't you think that the use of Arabic instead of Chaouia on SNSs is harmful for your language?**

Usage of Arabic instead of Chaouia on SNSs is not harmful on Chaouia at all because it is acquired at an early age. Myself, I didn't even know Arabic and I learnt it when I went to school. That is, Chaouia has deep roots in our lives and our everyday practices either outside or at home.

- **Is this will remain the same thing in the future?**

In the future, it [Chaouia] will remain a local dialect used only in everyday life offline and may be with time its usage may reduce even offline to a great extent.

- **Don't you see that the intensive exposure of the Berbers to different foreign languages and cultures within SNSs influence Berber (language and culture)?**

I think that mainly Aoures region has been deeply influenced and Chaouia dialect is constantly reducing if compared to the past, unlike the Kabyles who still strongly maintain their dialect and this is out of experience.

- **Do you mean that SNSs play a role in these changes?**

Of course, SNSs contribute to these changes but not to a great extent. That is, what is more important is that in order to preserve the cultural heritage, we should not rely only on SNSs because they have both positive and negative consequences.

➤ **Would you please give examples of both cases?**

When we want to transmit our ideas, traditions, and heritage culture to the outside world we find that SNSs facilitate the propagation to achieve the aims we want.

However, for me, Chaouia dialect doesn't have dimensions to focus on it, especially as far as research and sciences are concerned. Accordingly, even SNSs will not have a big influence or intensive light on it, i.e. there will be small attraction rates due to the fact that it is only a local dialect.

➤ **According to your experience, in what respect do Chaouia people differ from the Kabyles in preserving their language?**

Recently, many people from different social backgrounds came to [settle in] the Chaoui region; like Mozabits, Arabs, etc., who led to a change in the demographic construction of the original Chaouia. That is, these different [social] combinations along with the technological developments led to a gradual moulting [from the origins] and changed the Chaouia society, which used to preserve its cultural heritage. [Accordingly, many started to feel that] the one who speaks his dialect seems primitive for the others, and this is a wrong vision”

That is, even in the Chaouia region there are great differences across its areas in the rates of maintaining the dialect. i.e. there is a remarkable decrease in usage rates and maintenance of the dialect and traditions, etc.

Thus, according to his answers, Chaouia is not endangered by Arabic since it is only learnt at school. However, due to the recent internal migrations and settlements in the Aoures region, the demographic construction of Chaouia society has been changed. In other words, Chaouia children started to be exposed to languages other than their mother tongue at an early age. Besides, he believes that technology plays a little role in these changes if compared to the change in the social construction of the region, as natives started to compare themselves to the others and feel primitive in front of them when using their mother tongue. Furthermore, he himself believes that Chaouia is a mere local dialect and does not fit important domains like research and sciences. Actually, what endangers a language variety is not its contact with other languages, but the attitudes of its native speakers towards it because this leads to lack of interest in maintaining and transmitting it to the next generations.

Similarly, interviewee 10 also observes that there are considerable changes in people's attitudes as far as their mother tongue (Zenata) is concerned. He said in this respect:

Interviewee 10: *Zenata is only a language used for communication and does not help in improvement and development. We [Zenata people], at certain periods, some started to feel shy to speak it [Zenata] (he inserted three emojis of a broken heart successively). When you talk to him in Zenata, he replies in Arabic; he sees himself backward [when he uses his mother tongue]. In addition, people have wrong perceptions, as they teach their children Arabic [instead of Zenata at home at an early age] so that they will not find obstacles when they go to school [since the language of instruction is Arabic].*

That is to say, in addition to the case of Chaouia, Zenata dialect is also experiencing the first paces towards language shift, as most of its speakers do no longer have strong positive feelings towards using it. They prefer to use Arabic for utilitarian functions, mainly because it is the official language used in education in the Zenata regions. Besides, people started to have a sense of backwardness when they use it as a result of audience design; since they care about the image they want to transmit to others about themselves, they tend to disclose themselves from the use of such a variety (Wardhaugh, 2006). In addition, its speakers do not see that Zenata fit development and improvement, such feelings lead to lack of interest in learning it and transmitting it to the coming generations.

Such negative attitudes of the native speakers towards their mother tongues may lead to dramatic consequences and language loss, there must be attempts to reverse these perspectives in order to rescue the important cultural heritage they hold within. These language varieties link the present to the ancient history of our identity, existence and our Algerianity, which is rich in terms of the diverse cultures we have, stretching throughout every inch of the country. Every region and every ethnic group has features that do not only differentiate it from others but that contribute to the construction of the Algerian cultural heritage. Actually, a loss of language means accordingly a loss of culture and leads to cultural alienation and loss of identity. So, speakers of these dialects are required to draw on the services provided within the digital world to revive and preserve their language and culture, especially that the digital environments of communication provide easy, cheap, and multimodal possibilities to represent their culture (language, songs, folklore, dances, clothes, food, etc.). They are also required to make use of the text-based nature of communication to provide written forms to their vernaculars. Such

practices might be easier because social media are used by approximately all strings of society and propagation may reach wider audience easily.

In the case of Touareg, things seem to be a bit different. As has been mentioned above, interviewees who belong to this Berber group exhibit high self-esteem and pride. Such feelings guarantee the maintenance of their dialects since they believe they have a different identity and they encourage the use and transmission of their cultural heritage, including language, to the future generations. Yet, as a result of the intensive contact with non-Touareg groups through education, urbanisation, rural exodus, tourism, and interest of people from different regions to live in the south for job opportunities, Touareg dialect is witnessing changes at the different linguistic levels. Interviewee 11 says about this issue:

Interviewee 11: *Old people sometimes use some words that we cannot understand if they do not explain them to us; because time changed. In a time ago, old people didn't study at school, they were obliged to learn their language as it should be. That is, there are words that have difficult pronunciation. At that time, they were obliged to use them to be understood by the others. However, today we can substitute them with Arabic or French words that have the same meaning. This might be due to the fact that there was only one dominant language, which is Touareg. For example, myself, I sometimes find difficulties to understand my grandmother, who speaks neither Arabic nor French; sometimes my father or my ankle explain for us when we don't understand some words.*

So, in spite of the fact that Touareg people tend maintain their special identity and culture, language change is unstoppable because social factors like education and urbanisation cannot be avoided. The problem in such a case is that the varieties that are being levelled and koinised are spoken only and when they vanish, they will disappear forever, unfortunately. It is high time for cultural organisations and associations to take care of this “inconcrete” cultural heritage because every Algerian aspect matters.

Therefore, several sociolinguistic phenomena contribute to intensify the complexity of the Berber state, such as the stagnation of monolingual Berber population and the growth of Berber-Arabic bilingualism, in addition to the growth of the emergent generations who might be competent in Arabic (or French) more than in Berber, unlike their parents (Ennaji, 2005). This also leads to a steady shift towards the use of languages of wider communication. Moreover, the urban varieties of Berber, which have been adapted to meet the new social

contexts and characterised mainly by heavy linguistic borrowings and interference, will develop paving the ground for language levelling, koinesation, change and thus to the reduction of intelligibility amongst Berber-speaking communities living in distant regions. Yet, unintelligibility between Berber groups can also be reduced and shrink because of interaction on Facebook, as they exhibit interest in inter-group communication; such as the case of interviewee 2 who said he communicates with Mozabits and interviewees 8 and 9 who said they communicate with Kabyles, in addition to interviewees 11 and 12 who said they interact with other Touareg people even outside Algeria, who live in Libya, Mali, Niger, and Mauritania.

4.5. Summary of Key Findings

Based on the research results, it is now clear that people on Facebook draw on the affordances of the digital context of communication as well as their offline practices, knowledge, and identities to represent themselves and interact with others, leading to an overlap between offline and online features. In other words, all sociolinguistic characteristics have been transmitted and represented online, yet they have been adapted according to what suit people's communication needs in the new digital environments. That is to say, the Algerian sociolinguistic situation has not only been faithfully represented and vigorously preserved in this advanced technological framework of communication (Facebook) but it has acquired many new features that have intensified its rich and complex profile.

Actually, the language varieties used by the Algerians as well as the many sociolinguistic phenomena that resulted from the contact situations have not only been represented in digital contexts which are devoted primarily for interpersonal interaction, but they have been maintained, acquired new domains of use, and spread to wider audiences. The Arabic case, for instance, which has always been problematic and attracted criticism, especially amongst the ones concerned with linguistic purity, has proved to be a language that can resist all factors of marginalisation due mainly to its strong link to people's cultural identity on the one hand and to the policies of Arabisation implemented since the 1970s, on the other. It could successfully cope with the new digital environments, which were designed at the beginning to fit the languages of their creators.

Both forms of Arabic, the standard version and the vernaculars, are used hand in hand on Facebook by the Algerians and previous assumptions about the spread of colloquial Arabic at the expense of SA have proved to be wrong. Actually, even on Facebook they share complementary roles as they are distributed to fit the several language situations, including the

different writing spaces available on the site, the topics of discussion, and the interlocutors. Accordingly, SA has acquired many new domains of use and it is competing Algerian Arabic in informal and interpersonal communication usages. This can be considered as one of the advantages that SA gained in the digital world, as it is being used in such domains for the first time since its stagnation during several centuries ago. As for the many grammatical mistakes observed, they are not really the result of digital communication, but rather they reflect the users' competence in the language (who already have a passive competence in SA even offline), and they represent accordingly the different levels of contemporary Arabic.

Algerian Arabic, on the other hand, also benefited from the new contexts of language use. It is overwhelmingly used in text-based media though it has formerly been a spoken-only variety used in restricted informal domains such as home and street conversations. Hence, it has been informally codified and used for many new written purposes. In addition, it has acquired two optional scripts too, since both of Arabic and Latin scripts are used interchangeably to represent the variety in text-based communication on Facebook. Accordingly, these practices will maintain the diglossic nature of the Arabic language for many other centuries in the future because both forms are transmitted, preserved, and used for complementary roles on the site due to their importance for people's sociocultural identity.

As far as the case of Berber is concerned, things are more complicated online as a result of the new contexts of language use which led to the representation of the Berber varieties on written domains and sharpened language contact that may have double-edged effects on the language varieties. Facebook can be a boost for the revival and the maintenance of these varieties which are sometimes spoken by minorities in far areas. Berber has also been used for the first time in its history for text-based interpersonal communication though its existence dates back to more than 2000 years ago. It is represented in three optional scripts, Arabic, Latin, and Tefinagh (used sporadically both online and offline to represent identity), which are used depending on people's affinity and ideologies. Besides that, Berber dialects are also exposed to a large audience and the increasing inter-group communication on Facebook may contribute to their spread as well as to the breakdown of geographical, social and linguistic distance between these varieties, which are scattered throughout the large Algerian territory. However, the frequent contact between Berber and other languages on Facebook can have dramatic consequences too because its native speakers often switch to languages of wider communication, namely Arabic and French, to communicate with people who do not understand them, reducing accordingly the use of Berber and enhancing exposure to other

languages. This may lead to further stagnation of Berber monolingualism and the growth of new generations which can be more competent in Arabic and French than in their mother tongues.

World languages used in Algeria are also critical and generated topics with a great deal of controversy on Facebook. Rivalry between French and English has not only been transmitted but it has been sharpened within the online world. English in fact is taking over many of the practices which have always been monopolised by French. The global language is being nativised and localised in the Algerian Facebook linguistic landscape; through intensive language mixing and borrowing, representing it either in Latin or Arabic scripts, and adapting it according to what suit the Algerian local cultural meanings. However, French is still predominantly the language of prestige and maintained mainly by females, educated Algerians, and Kabyle Berbers on Facebook. It is still deeply rooted and installed in the Algerian linguistic practices and there is no indication that it will be completely substituted by English in the near future because both languages have important social values and they are used for complementary roles, especially that people prefer additive rather than subtractive bilingualism.

Therefore, Facebook became a space where several language varieties meet and interact in unprecedented ways leading accordingly to many new consequences as a result of the frequent and intensive contact between them. Many new multilingual and trans-lingual practices have been encountered on the Blue World that draw mainly on the digital affordances of the site. Furthermore, these practices also have other results in the long run as they may lead to language maintenance, revival, or even language shift and loss. Another interesting phenomenon as far as multilingualism is concerned is the innovative ways these languages are represented online.

For instance, LA, which has been initially motivated by technical constraints became an icon of cultural identity representation. It is no longer used by people to overcome technological marginalisation because Arabic has been integrated into the character set of the Internet and most devices used for communication. However, maintenance of LA points to linguistic creativity rather than linguistic imperialism since people employ it strategically as a semiotic resource in online discourse to represent their identity, which is becoming increasingly a hybrid between local and global features. Actually, people find refuge in revolutionary scriptural practices (like script-switching, script-fusing, and the use of Arabic script to represent French and English), which can be considered as a ‘third space’ where two systems of identity

representation converge. This convergence is made up of artistic combinations between different elements that have never existed before and that can only be understood in their own terms and in their own context, as they mirror historical, cultural, and digital realities. In other words, both of Arabic and Latin scripts are preserved on Facebook because in spite of the remarkable shift towards the Arabic script, LA is still maintained. In addition to the use of scripts, many other multimodal resources are employed within digital discourse by the Algerians on Facebook.

Indeed, texts are increasingly multimodal, as they involve several modes of meaning representation including languages, scripts, pictographs, graphic symbols, colours, etc. Yet, what is interesting in digital discourse is not the amalgamation of different elements within communication texts but the ways they are deployed to build social worlds. Actually, people draw on these semiotic resources to represent their social practices online. Moreover, such usages are also seeping gradually to offline behaviours due to the intensive interference between the two worlds, real-life situations and the virtual world. So, a better understanding of digital discourse requires taking into account the interplay between language use, technological affordances, and the sociocultural context in which digital discourse operates. Besides, many linguistic forms alongside pictographic symbols emerged in the new contexts of language use and attracted public criticism.

Due to the interpersonal, interactive, informal, instantaneous, text-based, and electronic nature of communication, many new forms of linguistic practices emerged, evolved and spread in a short period of time. These usages are overwhelmingly non-standard and are accused to bring about linguistic ruin and deviation from conventions. Yet, these emergent linguistic practices do not indicate that the Internet ruins ‘proper’ languages but rather they either reflect people’s offline linguistic competence or their ability to adapt language to suit their communication needs in new contexts. Actually, the over use of shortened forms, letter/number homophones, non-conventional spelling, among others, are the result of the digital media of communication and not an indication of users’ lack of competence. Interestingly, SNSs proved to be helpful in foreign language acquisition that is why they are increasingly integrated in learning-teaching processes.

Thus, people could draw on the digital affordances (possibilities and constrains) and used innovative strategies for self-representation and expression, such as exaggerated use of punctuation marks, letter repetitions, emoticons, emojis, stickers, Internet memes, etc. that are

typically the product of online communication. These multimodal elements should not be perceived as mere substitutes of face-to-face non-verbal cues because this limits our understanding of the significant functions they have alongside the linguistic ones. They, however, exhibit several systematic functions within discourse, as they are employed in combination with other semiotic modes (language, scripts, colours, etc.) for the construction as well as the interpretation of meaning. In other words, even the visual elements involved in digital discourse have specific systematic grammar. Indeed, online texts are made up in ways to fulfil particular functions; they are widely used to dominate and control others and to create certain versions of reality according to their own perspectives and ideologies. After reporting the most important findings of the current research, it is also important at this level to point to some of its shortcomings so that they might be overcome in further research.

4.6. Limitations of the Research

Like any study, this research is not free from limitations. Here are three major shortcomings:

- First, the case of Berber constitutes one of the major topics of the research, however a micro-sociolinguistic analysis is missing due to the fact that the researcher is not competent in the Berber varieties.
- Second, the number of Berber participants is not really representative, as in the questionnaire only two groups are represented. As for the interview, though the researcher targeted mainly Berbers from the different groups, especially the ones who were missing from the questionnaire, generalisability of the results is not so possible because relying on self-reports of one participant from each community does not necessarily reflect the whole population. This is mainly applicable to the results obtained from interviewees 2 and 10, which indicate a gradual shift of Chaouia and Zenata Berbers to Arabic. Yet, they both expressed that this depends on the regional belonging because some regions still maintain their varieties and culture.
- Last but not least, one Berber group, who live in Tipaza in northern part of Algeria known as Tachnaouits (see appendix 29) are not represented in the research because of time constraints.

4.7. Conclusion

In a nutshell, this chapter is considered as the butter of the research, as it presents the main findings and conclusions. The most important characteristics of the Algerian sociolinguistic situation on Facebook, one of the digital environments of communication, have been tackled. These characteristics have been obtained via an empirical study that stands on user-based and screen-based data. The material required for the investigation has been gathered via different instruments (ethnographic techniques for the user-based data and random sampling for the collection of multimodal texts from Facebook) depending on the kind of data needed for the research. After discussions and syntheses of research findings, the researcher concludes that the rich sociolinguistic situation of Algeria is not only being preserved and maintained in an advanced technological framework of communication, but rather it is becoming even more complex due to the multifarious digital and semiotic resources afforded within the digital environments of communication, as many new linguistic practices have emerged signalling accordingly humans' ability to be linguistically creative.

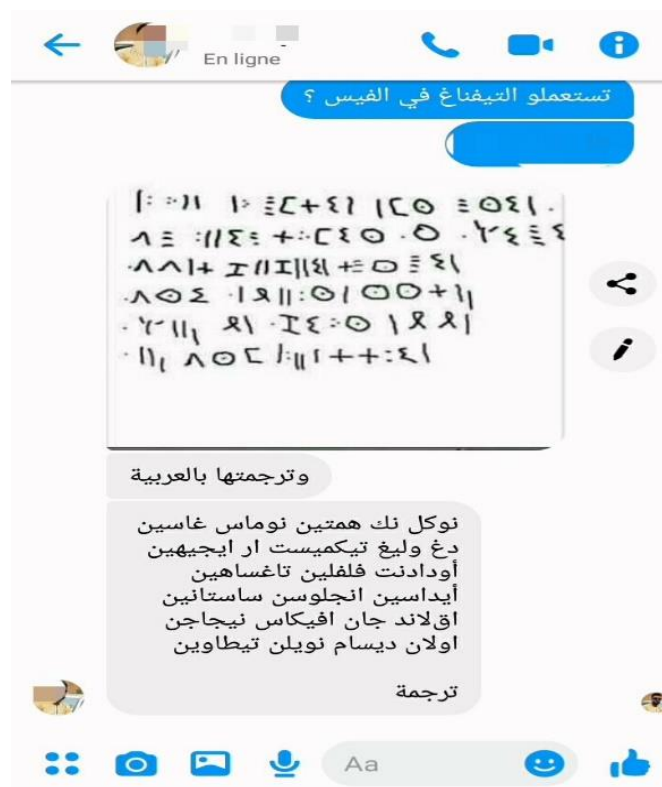
Notes of Chapter Four

- 1- Script-switching occurs either with code-switching or without it.
- 2- Gifs and short videos also provide important non-verbal cues on Facebook, yet since the research is only concerned with text-based communication, these usages have been dismissed.
- 3- The questionnaire was mainly distributed via a snowball technique, i.e. it didn't target a specific sample but it includes all the Algerian population regardless of their age, education, region, ethnicity, etc. For that reason, not all Berbers are represented in the questionnaire. Therefore, the interview sought to cover this gap in data collection. In other words, one of the aims of the interview is to deal with the variations across the different Berber groups in terms of linguistic practices on Facebook.
- 4- This phenomenon, a language having two writing systems, is called digraphia (Al-Khalil and Palfreyman, 2003).
- 5- They may switch between scripts when moving from one writing space to another but not within a single conversation or a sentence because their answers are influenced by the example in the statement provided.
- 6- Some of the questionnaire respondents answered previously that they use the Arabic script while they answered the question about factors of choosing a Latinised script; this can be because they used to use LA and then they shifted to the Arabic script.
- 7- Interviewee 7 has also supplied her answers with a record via email after the end of the interview because there is no way to download it from Messenger.
- 8- language use differs from language competence, as the former refers to language situation while the latter refers to the person's linguistics abilities. This idea has been confirmed on Facebook since people do not necessarily know a language to use it on the site. On the other hand, they sometimes cannot use all languages they are competent in.
- 9- In conversations via Messenger phone calls with interviewee 8, I noticed an intensive use of linguistic borrowings especially words from English.
- 10- All interviewees' answers inserted in the thesis are my own translation except the case of interviewees 1 and 7 because the interview with them was undertaken in English.

11- Berber varieties in Algeria are represented via three optional scripts: Tifenhagh, the indigenous writing system; Arabic, which started to be used as a result of the Arabisation and Islamisation of the area; and Latin, which has been first used after the French colonisation (1830-1962).

12- Touareg populations live in the vast African Sahara, they are classified into four distinct groups: two of them belong to the Algerian territory, one in Niger, and the other in Mali (see their map in appendix).

13- Interviewee 11 supplied his answer with an example about Tifenhagh script and its translation to clarify, the example has been screenshotted from Facebook Messenger:



He also provided an example of his own use of Tifenhagh in Status Updates on Facebook. This is the screenshot provided by the interviewee:



14- Berber regions, mainly the ones situated in the Sahara (Mozabit, Zenata, and Touareg), attract considerable number of tourist every year, either from Algeria or from the world, because these areas are characterised by their magnificent and amazing natural sights and authentic cultural traditions that stretch back to ancient civilisations and times.

GENERAL CONCLUSION

General Conclusion

As has been exhibited throughout the different stages of the thesis, this research has been designed primarily to investigate the extent to which the rich and the complex Algerian sociolinguistic situation is represented faithfully and vigorously preserved within an advanced technological framework of communication. This has been triggered mainly by the fast-changing digital environments of human interaction that are said to revolutionise not only people's life but even language use as well since it has witnessed the emergence of unprecedented practices in these new contexts.

Internet, the miracle of the twentieth and twenty-first centuries, provides its users with several environments that enable them to transmit, receive, share, download, and upload content. Besides, with the consistent developments and updates to its sub-technologies, many more digital practices became possible. These online behaviours have emerged mainly after the advent of web 2.0, the second generation of the world wide web, which enables Internet users to create their own content rather than only passively receive it. This has been coupled with the introduction of the social networking sites that did not only fuel human interaction but they contributed also to the socialisation of the Internet, on the one hand, and the digitalisation of people's behaviours, on the other; as it is more and more integrated within the daily social practices of its users.

Facebook, in particular, is best described as Internet's 'social operating system' that connects people in spite of the distances and enables them to transmit their real-life experiences into the virtual world thanks to the various services and interaction possibilities it affords. The attractions provided by the site succeeded to capture the highest rates of participation in a short time after its creation, with more than two billion Facebook users out of more than three billion of the world's social media users in 2020. It is also dominant in Algeria; as recent statistics indicate that more than twenty million Algerians use Facebook. It is ranked, accordingly, amongst the first countries in the world in the growth rates of its active users during the last decade.

Facebook users have a range of communication capabilities in the three writing spaces available: status updates, comments, and private messaging. That is, communication can be public, semi-public, or private, either synchronously or asynchronously. Besides, channels of communication support multimedia features, i.e. it includes text, voice, and audio-visual

messaging. The site also enables users to share and exchange multimedia content like texts, pictures, videos, music, etc. Thus, these seducing services enhanced Facebook population especially with the recent technological developments that made it possible for people to use it via networked smartphones. In fact, these facilities and services attracted millions of subscribers and also triggered criticism and fear, especially as far as local cultures and languages are concerned.

Indeed, the intensive use of such digital environments boomed controversial attitudes since they constitute an arena for continuous exposure to other cultural and linguistic practices which may lead gradually to the hybridisation or change of cultures resulting accordingly to a loss of genuine cultural identity and linguistic speciality within such rapid global changes. Actually, language has been dramatically affected since the introduction of the Internet due to its electronic, interactive, and global nature. Users of communication media also exhibit unprecedented linguistic creativity since they draw on the digital possibilities and the semiotic resources to express and represent themselves. That is, the digital affordances have been adapted to meet people's communication needs leading, accordingly, to the amalgamation of the multiple modes available within online discourse.

Debate has been especially sharpened in third world countries mainly amongst Arab-Muslim communities, who believe that Internet is a modern version of western cultural and linguistic imperialism. This has been coupled with the great decline in the so called 'Arab region' (in all domains), which became a land of consumption rather than production. Algeria, for instance, undergoes remarkable social and linguistic changes as a result of the growth of interconnectedness and interdependency in the world as a result of globalisation, which has been intensified due to the new media of communication. So, this research attempts to shed light on some of the sociolinguistic issues in a scientific way relying on empirical data rather than mere subjective assumptions and prejudice.

Thus, it is of a paramount importance to investigate how the Algerian sociolinguistic profile is represented in the most popular and ubiquitous digital environment in the country. To attain this objective, the research passed through different indispensable steps. The first one has been to set its ground as it constitutes the platform on which the research stands. Hence, it has been backed by the most relevant findings in the field. Therefore, the theoretical background is composed of two constituent and complementary parts; one deals with the Algerian sociolinguistic situation and the other tackles the main characteristics of the digital environments of communication and their sociolinguistic consequences.

The opening of the first chapter is a selection of the most important historical factors that caused present-day linguistic diversity and complexity in Algeria. The aim behind this is not to state historical events but to explain the origins of the linguistic varieties used, their characteristics, and the functions they employ within the country. Arabisation policy has also been given credit in the research since it has not only changed the course of linguistic developments in Algeria but it also influences language choice and use on Facebook. Some sociolinguistic consequences of these historical events and political plans have also been presented in this chapter, including: the languages used (Berber, Arabic, French, and English), diglossia, multilingualism, language contact, code-switching, and linguistic borrowing.

The second part of the theoretical background tackles the most important characteristics of the digital environments of communication and how language is being used in these new contexts. It begins with definitions and provides details about the most relevant concepts to this research, namely: computer-mediated communication, social networking sites, Facebook, and online communities. Then, emphasis is placed on the sociolinguistic features that characterise these digital contexts. Structures and functions of multimodal discourse elements have been tackled alongside a selection of some sociolinguistic issues. The Arabic case online constitutes an important component of the chapter due to the controversy it receives as a result of the unprecedented linguistic practices it acquires in the virtual world.

The third chapter presents the methodological framework of the research. Due to the fact that it is a language-focused study of computer-mediated communication, an empirical research design has been adopted. Accordingly, the approach of the study is computer-mediated discourse analysis as it focuses on online linguistic practices and allows various relevant theories to be tested and empirically studied. Empirical data has been obtained from Facebook, the site of data collection. Both of user-based and screen data have been gathered for the analysis. The former includes data obtained from online observation, snowball questionnaire, and semi-structured interviews. The latter includes content that has been randomly selected from Algerian Facebook linguistic usages as illustrations to the phenomena observed.

As far as the analysis of data is concerned, a mixed-method approach has been adopted because it suits the nature of data. Besides, qualitative content analysis has been used to analyse screen data, some of which have been analysed through the use of multimodal discourse analysis paradigm that draws on Kress and van Leeuwen's (1996) visual analysis, which has been in turn influenced by Halliday's systematic functional linguistics.

The research findings can be arranged into five major topics: 1) structural features of language use on Facebook, 2) scriptural practices, 3) multilingual encounters, 4) paralinguistic displays, and 5) multimodal discourse. All of these phenomena combined together lead us to the main research objective, which aims to investigate the Algerian sociolinguistic profile on Facebook, as they contribute empirically to the understanding of the different linguistic practices of the Algerians in one of the most widely used digital environments of communication.

First, the structural features of language use online are amongst the very first issues tackled since early CMC studies, as language scholars have always been interested in what impacts these new media of communication have on languages and their conventions. Analysis of content in addition to the results obtained from ethnography reveal that short and non-standard forms of writing are widely used by the Algerians on the different Facebook writing spaces due to: 1) the electronic context of communication, 2) informality of the medium, 3) the small size of writing space and the screen that determine both of language production as well as reception, 4) the relatively synchronous nature of communication (especially private messaging), and 5) preference of short texts by the audience (mainly in comments and status updates) who are more likely to interact with short rather than long content. Such a digital competence, knowledge about the digital context of language use, is required in addition to the other kinds of competences for effective communication on Facebook.

The most frequently encountered shortened forms of writing on the site are: contractions, clipping, acronyms, initialisms, letter/number homophones, and non-conventional spelling. It should be noted in this respect that these usages are different from language mistakes and they do not necessarily indicate lack of competence, but rather they indicate people's digital competence because they could adapt language in ways that fit the new communication contexts. Interestingly, such linguistic features have been mainly observed in Latin-scripted writings (French, English, and LA), while they are almost absent in Arabic (represented in the Arabic script). This can be explained by the nature of the writing system of Arabic which is strikingly different from the other languages. Arabic is consonantal, i.e. the diacritical marks are optional and they are rarely used by its users especially online. In other words, diacritics are already omitted and only consonants remain for users who do not have a lot to remove without affecting meaning.

However, Arabic structures have also been affected by the electronic, interactive, and informal nature of online communication, as many grammar mistakes have been observed. Yet,

these mistakes are not always the result of the technology but they represent the user's level in Arabic. In the light of these observations, further empirical studies that tackle: 1) factors behind lack of shortened writing forms in Arabic represented in the Arabic script if compared to Latin-scripted writings and 2) the representation of contemporary levels of Arabic online are highly recommended.

The second issue that has been dealt with in the current research is the Algerian scriptural practices on Facebook. This phenomenon has brought the Arabic language, in particular, to the brink of the biggest revolution ever in its history and could get it out of its traditional archaic stagnation. Arabic has been adapted in ways that cope with the new communication media. In fact, this phenomenon has attracted fierce criticism from those concerned with linguistic conventions and correctness of structures. This research, however, adopts descriptive and analytical methods rather than prescriptions of rules. That is, there is an attempt to study and analyse phenomena as they really occur and to infer their factors and possible consequences.

Arabic acquired a new script, in addition to the traditional one, as a result of technological marginalisation by the beginning of Internet spread. Yet, the two optional scripts, Arabic and LA, carried on to be used hand in hand in spite of technological support of languages with non-Roman scripts. So, instead of highlighting such phenomena as being deviations of the 'standards', explanations of their maintenance are prerequisite. This research proposed six possible factors that may explain why people still use LA: 1) technical constrains, 2) linguistic facilities of Latin script, 3) users' abilities and attitudes towards the two scripts, 4) the interlocutors, 5) the image one wants transmit about him/herself to the audience, and 6) the representation of cultural identity. The latter emphasises the fact that LA has been initiated by technical constrains and maintained later on due its role in representing Algerians' cultural identity, which is a hybrid between local and global features. This also points to the flexible nature of Arabic that has been used as a semiotic resource to signal identity, on the one hand, and to humans' ability to be linguistically creative to meet the new communication needs, on the other. For these reasons, among others, LA is not likely to disappear from the Algerian linguistic manifestations in the near future.

Paradoxically, research findings also show that there is a remarkable shift towards the Arabic script amongst the Algerians on Facebook. This is due to many factors mainly: first, the representation of Algerians who belong to different social backgrounds especially after the democratisation of Internet and social media in Algeria with the spread of networked smart-

phones connected to the Internet, including more Arabised members (as a result of Arabisation) and people with little education. Second, the spread of Facebook groups and pages that join together people from the different Arabic-speaking regions. In other words, both scripts are likely to persist within the Algerian sociolinguistic profile on Facebook because while LA represents crucial historical and cultural aspects of the Algerians, the Arabic script represents people's Arab-Islamic belonging.

Interestingly, Algerians do not only switch between the two optional scripts on Facebook but several other new practices have been observed in different contexts. These scriptural alternations include intra-sentential script-switching, inter-sentential script-switching, script-fusing, and Arabised French and English. These linguistic behaviours point once again to linguistic creativity since people find refuge in revolutionary, non-conformist, linguistic behaviours, which can be considered as a "third space" where two systems of identity representation converge. Such convergence does not belong to either extreme but it is rather, composed of an artistic combination between different elements in a way that has never existed before and that can only be understood in its own context.

The multilingual practices encountered on Facebook reinforce the complexity of the Algerian sociolinguistic profile within the digital environments of communication. All language varieties used by the Algerians offline (Berber, SA, Algerian Arabic, French, and English) have been transmitted to the 'Blue world'; they are used in varying degrees under different conditions as they are attributed to different communication roles and distributed differently in different contexts depending on social and digital factors. Besides, people also exhibit several forms of code alternations, either inter-, intra-, or extra-sententially. Code-switching is not only used in a participant's language practices but it occurs even within turn taking between different people in private conversations and comments. What is more interesting is that people do not necessarily need to be competent in a language to use it, as they can simply use (share, insert, or copy-paste) ready-made statements, words, videos, etc. produced in different languages in addition to or instead of statements of their production in their comments, status updates, or private messaging. This has fostered the use of written code-switching with many new forms and also enabled the use of some varieties which have had very restricted usages offline, such as SA and English.

Indeed, SA is widely used on Facebook and it is acquiring new domains as it is no longer restricted to the traditionally-established official fields such as administrations, education,

religion, etc. That is to say, on the one hand Algerian Arabic competes with SA in the written fields of discourse (text-based communication on Facebook), the latter on the other hand also challenges the former in the informal domains. This can be considered as an “unplanned” language planning, which guaranties and preserves the diglossic nature of Arabic for further centuries since digital communication contributes to the maintenance of both forms via the unofficial codification of the formerly spoken-only variety and the vernacularisation of the High variety. These issues (the codification of Algerian Arabic and the informal functions acquired by SA) also require more investigations to see what impacts this will have on the two varieties as well as on Arabic diglossia.

The use of English on Facebook by the Algerians is also an interesting topic to tackle. English is seeping gradually to the Algerian linguistic practices in the digital environments of communication and what is more interesting about that is the way it is deployed in their behaviours on Facebook. The following practices have been observed: 1) it is relatively widely used in status updates and comments, as it is possible for users to edit what they write and they do not really need to have a good command of a language to use it in these writing spaces, 2) it is intensively used by Algerians of different educational levels in informal contact situations on Facebook, 3) the dominance of the informal style (use of slang expressions, shortened forms, and exaggerated spelling), 4) it is often mixed with other languages mainly Arabic and French, 5) it is often adapted to represent local cultural meanings, and 6) English words and expressions are sometimes represented in Arabic script. Accordingly, these usages mark the beginning of the integration and the localisation of the global language into the Algerian context.

This integration will lead to the emergence of many unprecedented linguistic phenomena in the Algerian sociolinguistic profile in the long run; mainly the emergence of new forms of switching and borrowing, which have always been monopolised by French, as well as interference between the different varieties (namely English and Arabic) at all linguistic levels: phonetic, morpho-syntax, and lexical-semantic. As a result, other issues as far as the position of the English language in Algeria is concerned will be raised; including rivalry between the two world languages (French and English), emergence of a new variety of English in the Algerian landscape (Algerian English), and the nature of relationship between English (language of science and technology) and Arabic (language of cultural identity). More scientific research is required to tackle these topics from both micro- and macro-sociolinguistic perspectives.

Last but not least, the increasing multimodal nature of digital discourse also attracts the interest of language scholars as it gives new insights into humans' linguistic and communication abilities. Actually, language is acquiring new features and it is used in a range of different manners in the new contexts. It is employed alongside many other modes, which are used strategically for meaning construction. Indeed, people draw on the semiotic as well as the digital resources available online to express and represent themselves. These elements used in digital discourse exhibit systematic functions; colours, images, memes, emojis, emoticons, caricatures, languages, stylistic use of scripts and linguistic items, etc. have specific functions each time they are employed. Interestingly, such usages say a lot about the identity of their users, since their age, gender, and regional belonging can be inferred through these practices in spite of the anonymity and invisibility of users. Besides, analysis of content reveals that social norms, ideologies, and power relations are also transmitted to the virtual world because combinations of multimodal elements always carry hidden messages. Accordingly, a better understanding of digital discourse requires taking into account the interplay between language use, technological affordances, and the sociocultural context in which it operates instead of providing mere linguistic descriptions because observing words within texts online cannot account for what content construction really mean in people's daily lives.

In a nutshell, this research reveals the rich Algerian sociolinguistic situation, which has not only been transmitted and maintained in one of the digital environments of communication (Facebook) but it is, rather, acquiring many new features as a result of the digital context on the one hand and the human's abilities to be linguistically creative, on the other. In the light of all what have been raised in this study, the researcher invites language scholars to elaborate more on the many issues related to language use in the new digital frameworks of communication.

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Appendix 1: Questionnaire in Arabic

الاستبيان الذي بين ايديكم يعتبر جزءا مهما من بحث علمي في مجال اللسانيات الاجتماعية، يتمحور موضوعه حول الاستعمالات اللغوية للفيديو في الجزائر. لذلك فأجوبتكم مهمة لبلوغ الأهداف المرجوة كما ان دقة النتائج تتوقف على مدى صحة المعلومات التي تقدمونها، مع العلم ان كل المعلومات ستستعمل لأغراض علمية بحثية بالإضافة الى ان اخلاقيات البحث العلمي تتطلب السرية في التعامل مع المعطيات الشخصية.

• ضع علامة (x) في الخانة المناسبة

1- المعلومات الشخصية

■ السن:

- 1 - أقل من 20 سنة ☐ 2 - من 21 الى 25 سنة ☐ 3 - من 26 إلى 30 سنة ☐
4- من 31 الى 40 ☐ 5- أكثر من 40 سنة ☐

■ الجنس:

- 1- ذكر ☐ 2 - أنثى ☐

■ الإقامة:

- 1- الشرق ☐ 2- الوسط ☐ 3- الغرب ☐ 4- الجنوب ☐

اذكر الولاية:

■ المستوى التعليمي:

- 1- ابتدائي ☐ 2- متوسط ☐ 3- ثانوي ☐ 4- جامعي ☐ 5 - ما بعد التدرج ☐

اذكر التخصص العلمي:

■ المهنة:

- 1- موظف ☐ 2- بطال ☐ 3- طالب ☐ 4- عمل حر ☐ 5- عقود ما قبل التشغيل ☐

2- ما هو الجهاز الذي تستعمله لاستخدام الفيديو؟

- 1- حاسوب ☐ 2- هاتف نقال ☐ 3- لوح الكتروني (تابلات) ☐

3- ما هو المعدل اليومي لاستخدامك للفيديو؟

- 1- أقل من ساعة واحدة ☐ 2- حوالي ساعتان ☐ 3- أكثر من ثلاث ساعات ☐

4- ما هي حروف الكتابة التي تستعملها لكتابة العربية (او الامازيغية)؟

- 1- العربية ☐ 2- اللاتينية ☐ 3- كلاهما ☐

5- في حالة استعمالك للحروف اللاتينية لكتابة العربية، كيف تكتب الحروف التالية؟

- [ق] [غ] [ع] [خ] [ح] [ع]

6- لماذا تستعمل الحروف اللاتينية لكتابة العربية (أو الامازيغية)؟

- لا تُحب في حالة عدم استعمالك للحروف اللاتينية لكتابة اللغة العربية أو الامازيغية

أبدا	نادرا	أحيانا	غالبا	دائما	العبارات
					1- الجهاز الذي استعمله لا يحتوي على الحروف العربية أو الامازيغية
					2- الحروف اللاتينية مناسبة أكثر
					3- استغرق وقتا أطول عند استعمال الحروف العربية
					4- للتواصل مع اشخاص متعلمين
					5- للتواصل مع الاشخاص الذين يستعملون الحروف اللاتينية
					6- لأنني أجد سهولة أكثر في استعمال الحروف اللاتينية
					7- لأنها تمكنني من استعمال الاختصارات اللغوية و الرموز و الأرقام بدلا من كتابة كلمات و جمل كاملة
					8- لأن العامية تحتوي على العديد من الكلمات الأجنبية
					9- أجد صعوبة في استخدام وفهم الحروف اللاتينية
					10- لكي لا يعتقد الآخرون أنني رجعي عند استخدامي للحروف العربية
					11- الحروف العربية لا توصل الأفكار التي أريد التعبير عنها
					12- استعمال الحروف اللاتينية يعطي فكرة للمتلقي أنني إنسان مثقف ومتعلم

7- ماهي اللغة/اللغات التي تستعملها في الحالات التالية؟

- يمكن وضع العلامة (x) في أكثر من خانة في حالة استعمالك لأكثر من لغة واحدة لنفس الغرض

مزيج بين اللغات	الانجليزية	الفرنسية	الامازيغية	الدارجة	الفصحى	استعمالات اللغة في الفيسبوك
						1- للتعليق على المنشورات
						2- للردشة على الخاص
						3- للنشر
						4- لمشاركة المنشورات
						5- عند محادثة أشخاص يستعملون الفصحى
						6- للتعليق و التواصل مع أشخاص في مجموعات تضم أشخاصا من مختلف الدول العربية
						7- لنشر الصور المكتوبة
						8- لنشر و التعليق على موضوعات دينية
						9- لمحادثة أشخاص لا يجيدون العربية
						10- لمحادثة أشخاص مقربين
						11- لمحادثة أصدقاء جدد
						12- لمحادثة أشخاص ذوي مستوى تعليمي او اجتماعي عالي

8- ما هي الخصائص اللغوية لاستعمالاتك للفيسبوك؟

أبدا	نادرا	أحيانا	غالبا	دائما	الخصائص اللغوية لاستعمالات الفيسبوك
					1- أولي اهتماما للدقة اللغوية و أصحح الأخطاء
					2- غياب صوت وتعبير وجه المتحدثين يعيق فهم المعنى الحقيقي للرسائل، المنشورات و التعليقات المكتوبة
					3- عندما يجد المتلقين لرسائلي وتعليقاتي صعوبة في فهم المعنى المقصود أضطر للتوضيح و الشرح أكثر
					4- استعمال الايموجي و الصور يعتبر إضافة مهمة لأساليب التواصل الحديثة اذ يقلل من احتمال سوء الفهم ويوضح المعنى المقصود
					5- تحسن مستوي في اللغات لأنني اتواصل مع مستعملي اللغات الأجنبية بالإضافة الى انضمامي الى مجموعات و صفحات ذات تنوع لغوي و ثقافي
					6- اعتمادي على الجهاز لتصحيح الأخطاء النحوية أدى الى تراجع مستوي في اللغات، مثلا اقدرت العديد من الأخطاء عند الكتابة بالطرق التقليدية
					7- استعمل في التعليقات و مشاركة المنشورات بعض اللغات التي لا استعملها كثيرا في الواقع (مثل اللغة العربية الفصحى/الإنجليزية)
					8- أخطائي في الكتابة كثيرة لأنني اكتب بسرعة و اولي اهتماما للمعنى اكثر من الدقة اللغوية
					9- استعمل الاختصارات اللغوية و الرموز للتعبير بدلا من الجمل الطويلة
					10- استعين بالكلمات المقترحة في الهاتف اثناء الكتابة لتجنب الأخطاء اللغوية
					11- انسح عبارات و فقرات جاهزة و ألصقتها في المنشورات و التعليقات
					12- بعض الكلمات و العبارات باللغة الإنجليزية او الفرنسية اكتبها بالحروف العربية حسب نطقها
					13- استعمل الحروف العربية و اللاتينية معا في المحادثات على الخاص، التعليق و النشر فمثلا ابدأ الكتابة بالحروف العربية ثم استعمل الحروف اللاتينية و بعدها اعود لاستعمال الحروف العربية و هكذا
					14- امزج بين الحروف العربية و اللاتينية في نفس الكلمة مثل كلمة انGليزية
					15- عند مصادفتي لكلمات اجنبية صعبة اترجمها باستعمال محرك البحث او قاموس الكتروني لترجمتها

9- ما هو رأيك فيما يخص تأثير الفيسبوك على اللغات في الجزائر؟

لا أوافق بشدة	لا أوافق	أحيانا	أوافق	أوافق بشدة	العبارات
					1- ساهم الفيسبوك في انتشار العامية على حساب الفصحى
					2- اعطى مجالات جديدة لاستعمال اللغة العربية الفصحى التي كان استعمالها يقتصر على ميادين رسمية، اكااديمية و دينية فقط
					3- أعطى فرصة للغة العربية لمواكبة الحداثة و التطور
					4- اللغة الفيسبوكية تشكل خطرا على اللغة العربية
					5- ساهم في استعمال و انتشار الامازيغية
					6- ساهم في انتشار العربية على حساب الامازيغية
					7- ادى الى تراجع مكانة اللغة العربية لكثرة استعمال اللغات الأجنبية خاصة اللغة الإنجليزية باعتبارها لغة العلم و التكنولوجيا
					8- تراجع معدل استعمال اللغة الفرنسية بين الجزائريين في الفيسبوك نظرا لانتشار اللغة الإنجليزية في وسائل التواصل الاجتماعي

Appendix 2: Questionnaire in English

1- Background Information

- Age:

1- less than 20 years old ☐

2- from 21 to 25 years old ☐

3- from 26 to 30 years old ☐

4- from 31 to 40 years old ☐

5- more than 40 years old ☐

- Gender:

1- Male ☐

2- Female ☐

- Residence:

1- East ☐

2- Centre ☐

3- West ☐

4- South ☐

Wilaya:

- Educational Level:

1- Primary ☐

2- Mediate ☐

3- Secondary ☐

4- University ☐

5- Post-graduation ☐

Specialty of education:

- Occupation:

1- Employed ☐

2- unemployed ☐

3- Student ☐

4- Free job ☐

5- Pre-employment ☐

2- What is the device that you use for Facebook connection?

1- Computer ☐

2- Smartphone ☐

3- Tablette ☐

3- What is the average of your Facebook usage per a day?

1- less than one hour ☐

2- about two hours ☐

3- more than three hours ☐

4- What is the script you use to write in Arabic (or Berber)?

1- Arabic ☐

2- Latin ☐

3- Both of them ☐

5- In case you use Latin script to write in Arabic, how do you write the following letters?

..... [ء]

..... [ح]

..... [خ]

..... [ع]

..... [غ]

..... [ق]

6- Why do you use Latin script to write in Arabic (or Berber)?

- Do not answer in case you do not use Latin Script to write in Arabic or Berer

Statements	always	generally	sometimes	rarely	never
1- the device I use does not contain the Arabic and Berber scripts					
2- Latin script is more suitable					
3- I spend more time when I use the Arabic script					
4- to communicate with educated people					
5- to communicate with those who use Latin script					
6- Latin script is easier for me to use					
7- it enables me to use abbreviations, symbols, and numbers instead of writing whole words and sentences					
8- because the vernacular contains many foreign words					
9- I find difficulties in using and understanding Latin script					
10- so that others will not think I am back warded					
11- Arabic script fails to transmit the ideas I want to express					
12- using it gives the impression to others that I am an educated and cultivated person					

7- What is/are the language(s) that you use in the following cases?

- You can tick more than one answer in case you use more than one language for the same purpose

Statements	Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing
1- To comment						
2- To chat in private						
3- To post/update status						
4- To share status/posts						
5- To communicate with people who use Standard Arabic						
6- To comment and communicate with members of groups who belong to different Arab countries						
7- To post picture comments						
8- To post and comment on religious topics						
9- To communicate with people who do not master Arabic						
10- To communicate with close people						
11- To communicate with new friends						
12- To communicate with people of High level of education						

8- What are the linguistic characteristics of your Facebook usages?

statements	always	generally	sometimes	rarely	never
1- I give importance to accuracy and I correct language mistakes					
2- The absence of users' voice and facial expressions hinders understanding the real meaning of messages, posts, and comments.					
3- I find myself obliged to clarify and explain more when interlocutors find difficulties in understanding the real intentions of my messages and comments.					
4- Use of Emojis and images is an important addition to the modern means of communication, as they reduce misunderstanding and clarify the real intentions of messages.					
5- My level in languages has improved because I communicate with people who use foreign languages in addition to joining groups and pages with linguistic and cultural diversity.					
6- My level in languages has diminished because I rely on the device to correct mistakes, for instance I commit many mistakes when I write in a traditional way.					
7- I use in comments and sharing other's posts some languages that I do not use a lot offline (like Standard Arabic/English).					
8- My mistakes in writing are numerous because I write rapidly and I give importance to meaning more than accuracy.					
9- I use abbreviations and symbols in writing instead of long sentences.					
10- I make use of the words suggested in the mobile in writing to avoid mistakes of spelling.					
11- I copy-paste ready-made expressions and paragraphs in posts and comments.					
12- I write some French or English words and sentences in the Arabic script depending on their pronunciation.					
13- I use both Arabic and Latin scripts in conversations in private, comments, or posts. For example, I start writing in Arabic script then I use Latin script, and then I use again Arabic script.					
14- I mix between Arabic and Latin scripts in the same word like in انجليزية.					
15- When I come across difficult foreign words, I translate them using brows engines or electronic dictionaries.					

9- What is your opinion about the impact of Facebook on Languages in Algeria?

Statements	I strongly agree	I agree	sometimes	I do not agree	I strongly disagree
1- Facebook contributed to the spread of the Colloquial Arabic at the expense of Standard Arabic.					
2- Facebook gave new domains to Standard Arabic that has previously been used only in official, academic, and religious situations.					
3- Facebook gave the Arabic language an opportunity to cope with modernity.					
4- The language of Facebook is dangerous on the Arabic language.					
5- Facebook contributed to the use and spread of Berber.					
6- It contributed to the spread of Arabic at the expense of Berber.					
7- The status of Arabic has been reduced because of the over use of foreign languages especially English, the language of science and technology.					
8- The use of French has been reduced amongst the Algerians in Facebook due to the spread of English in the social media.					

Thank you for your collaboration

Appendix 3: Semi-Structured Interview

1- Background Information:

- Gender
- Age
- Region
- Ethnicity
- Education
- SNSs used

2- Multilingual Practices:

- What are the language varieties you use on Facebook?
- What is the one you use the most?
- Does your language choice differ according to the writing spaces and interlocutors?
- Do you mix between languages? Why? When?
- Do you communicate with people abroad? What language(s) do you use?

3- Script Choice:

- What is the script you use in text-based communication on Facebook?
- Do you switch between scripts? Why?

4- Attitudes towards the Impact of Facebook on Language:

- Does Facebook help you to learn Foreign languages?
- Does it influence your linguistic abilities (negatively or positively)?
- What do you think of the impact of Facebook on languages?

5- Questions Asked to the Berber Interviewees:

- Do you use Berber on Facebook?
- Where do you use Berber, in comments, private messaging or in status updates?
- In case you use Berber, what script do you use to represent it? Why?
- Is your language use on Facebook similar to real life use?
- According to you, Isn't your usage of other languages (namely Arabic and French) instead of or in addition to Berber on SNSs harmful for your language skills?
- Do you communicate with other Berber groups (even Berbers from neighbouring countries)?

- Don't you see that the intensive exposure of the Berbers to different foreign languages and cultures within SNSs influences Berber (language and culture)?
- What do you think of the impact of Facebook on Berber, in general, and your mother tongue in particular?
- Do you think that Facebook contributes to the maintenance and spread of Berber?

Appendix 4: Results of the Respondents' Script Choice

Table 36: Results of the Respondents' Script Choice by Education

Education	Primary		Mediate		Secondary		University		Post-graduation		Total	
Scripts	F	P	F	P	F	P	F	P	F	P	F	P
1-Arabic	1	100%	5	33.3%	9	24.3%	42	27.8%	10	25.6%	67	27.57%
2-Latin	00	00%	6	40%	9	24.3%	43	28.5%	10	25.6%	68	27.98%
3-Both	00	00%	4	26.7%	19	51.4%	66	43.7%	19	48.7%	108	44.44%
Total	1	100%	15	100%	37	100%	151	100%	39	100%	243	100%

Table 37: Results of the Respondents' Script Choice by Age

Age	Less than 20		From 21 to 25		From 26 to 30		From 31 to 40		More than 40		Total	
Scripts	F	P	F	P	F	P	F	P	F	P	F	P
1-Arabic	7	17.1%	14	15.7%	14	29.2%	19	48.7%	13	50.0%	67	27.57%
2-Latin	21	51.2%	32	36%	8	16.7%	3	7.7%	4	15.4%	68	27.98%
3-Both	13	31.7%	43	48.3%	26	54.2%	17	43.6%	9	34.6%	108	44.44%
Total	41	100%	89	100%	48	100%	39	100%	26	100%	243	100%

Table 38: Results of the Respondents' Script Choice by Gender

Gender	Males		Females		Total	
Scripts	F	P	F	P	F	P
1-Arabic	39	39%	28	19.6%	67	27.57%
2-Latin	21	21%	47	32.9%	68	27.98%
3-Both	40	40%	68	47.6%	108	44.44%
Total	100	100%	143	100%	243	100%

Table 39: Results of the Respondents' Script Choice by Region

Region	East		Centre		West		South		Total	
Scripts	F	P	F	P	F	P	F	P	F	P
1-Arabic	20	36.4%	16	13.1%	11	32.4%	20	62.5%	67	27.57%
2-Latin	8	14.5%	58	47.5%	2	5.9%	00	00%	68	27.98%
3-Both	27	49.1%	48	39.3%	21	61.8%	12	37.5%	108	44.44%
Total	55	100%	122	100%	34	100%	32	100%	243	100%

Appendix 5: Script Choice in Previous Research

Table 40: Script Choice by Region in 2013

Place The Scripts	Place									
	East		Centre		West		South		Frequencies	
	F	%	F	%	F	%	F	%	F	%
Arabic	06	17.64	01	04.54	10	29.41	01	10	18	18
Latin	22	64.70	14	63.63	18	52.94	05	50	59	59
Both	06	17.64	07	31.81	06	17.64	04	40	23	23
Frequencies	34	100	22	100	34	100	10	100	100	100

(Zahali, 2013: 146)

Appendix 6: Results of Respondents' Representations of the Arabic Sound /ق/ in LA

Table 41: Results of Respondents' Representations of the Arabic Sound /ق/ in LA by Gender

			Gender		Total
			Male	Female	
HOW DO YOU WRITE ق ^b	(9)	Effectif	37	74	111
		% dans Gender	46.8%	56.5%	
	(A)	Effectif	0	5	5
		% dans Gender	0.0%	3.8%	
	(KA)	Effectif	1	1	2
		% dans Gender	1.3%	0.8%	
	(K)	Effectif	34	40	74
		% dans Gender	43.0%	30.5%	
	(G)	Effectif	2	3	5
		% dans Gender	2.5%	2.3%	
	(C)	Effectif	1	0	1
		% dans Gender	1.3%	0.0%	
	(Q)	Effectif	4	8	12
		% dans Gender	5.1%	6.1%	
	Total		79	131	210

Table 42: Results of Respondents' Representations of the Arabic Sound /ق/ in LA by Region

			Residence				Total
			East	Centre	West	South	
HOW DO YOU WRITE ق ^b	(9)	Effectif	25	66	16	4	111
		% dans Residence	53.2%	56.4%	53.3%	25.0%	
	(A)	Effectif	1	3	1	0	5
		% dans Residence	2.1%	2.6%	3.3%	0.0%	
	(KA)	Effectif	2	0	0	0	2
		% dans Residence	4.3%	0.0%	0.0%	0.0%	
	(K)	Effectif	12	38	13	11	74
		% dans Residence	25.5%	32.5%	43.3%	68.8%	
	(G)	Effectif	2	2	0	1	5
		% dans Residence	4.3%	1.7%	0.0%	6.3%	
	(C)	Effectif	1	0	0	0	1
		% dans Residence	2.1%	0.0%	0.0%	0.0%	
	(Q)	Effectif	4	8	0	0	12
		% dans Residence	8.5%	6.8%	0.0%	0.0%	
	Total		47	117	30	16	210

Table 43: Results of Respondents' Representations of the Arabic Sound /ق/ in LA by Educational Level

			Educational Level				Total
			Mediate	Secondary	University	Post-graduation	
HOW DO YOU WRITE ^b	(9)	Effectif	11	18	67	15	111
		% dans Level	84.6%	64.3%	50.4%	41.7%	
	(A)	Effectif	0	0	5	0	5
		% dans Level	0.0%	0.0%	3.8%	0.0%	
	(KA)	Effectif	0	0	1	1	2
		% dans Level	0.0%	0.0%	0.8%	2.8%	
	(K)	Effectif	2	9	49	14	74
		% dans Level	15.4%	32.1%	36.8%	38.9%	
	(G)	Effectif	0	1	3	1	5
		% dans Level	0.0%	3.6%	2.3%	2.8%	
	(C)	Effectif	0	0	1	0	1
		% dans Level	0.0%	0.0%	0.8%	0.0%	
	(Q)	Effectif	0	0	7	5	12
		% dans Level	0.0%	0.0%	5.3%	13.9%	
Total		Effectif	13	28	133	36	210

Appendix 7: Results of the Respondents’ Representations of the Arabic Sound /ɛ/ in LA

Table 44: Results of the Respondents’ Representations of the Arabic Sound /ɛ/ in LA by Educational Level

			Educational Level				
			Mediate	Secondary	University	Post-graduation	Total
HOU DO YOU WRITE ε^b	(A)	Effectif	1	6	38	6	51
		% dans Level	7.7%	21.4%	29.0%	16.7%	
	(3)	Effectif	12	22	86	26	146
		% dans Level	92.3%	78.6%	65.6%	72.2%	
	(AA)	Effectif	0	0	7	4	11
		% dans Level	0.0%	0.0%	5.3%	11.1%	
Total		Effectif	13	28	131	36	208

Table 45: Results of the Respondents’ Representations of the Arabic Sound /ɛ/ in LA by Region

			Residence				
			East	Centre	West	South	Total
HOU DO YOU WRITE ε ^b	(A)	Effectif	9	26	12	4	51
		% dans Residence	19.1%	22.4%	41.4%	25.0%	
	(3)	Effectif	33	86	16	11	146
		% dans Residence	70.2%	74.1%	55.2%	68.8%	
	(AA)	Effectif	5	4	1	1	11
		% dans Residence	10.6%	3.4%	3.4%	6.3%	
Total		Effectif	47	116	29	16	208

Appendix 8: Results of the Respondents' Representations of the Arabic Sound /ġ/ in LA

Table 46: Results of the Respondents' Representations of the Arabic Sound /ġ/ in LA by Region

			Residence				
			East	Centre	West	South	Total
HOU DO YOU WRITE ξ^b	(G)	Effectif	3	5	1	1	10
		% dans Residence	7.0%	4.6%	4.0%	6.3%	
	(GH)	Effectif	37	90	22	14	163
		% dans Residence	86.0%	83.3%	88.0%	87.5%	
	(GHA)	Effectif	0	2	2	0	4
		% dans Residence	0.0%	1.9%	8.0%	0.0%	
	(GA)	Effectif	2	0	0	0	2
		% dans Residence	4.7%	0.0%	0.0%	0.0%	
	(5)	Effectif	1	0	0	1	2
		% dans Residence	2.3%	0.0%	0.0%	6.3%	
	(R)	Effectif	0	11	0	0	11
		% dans Residence	0.0%	10.2%	0.0%	0.0%	
Total		Effectif	43	108	25	16	192

Table 47: Results of the Respondents' Representations of the Arabic Sound /ġ/ in LA by Educational Level

			Educational Level				
			Mediate	Secondary	University	Post- graduation	Total
HOU DO YOU WRITE ξ ^b	(G)	Effectif	1	2	6	1	10
		% dans Level	8.3%	7.1%	5.1%	2.9%	
	(GH)	Effectif	10	20	102	31	163
		% dans Level	83.3%	71.4%	86.4%	91.2%	
	(GHA)	Effectif	0	0	4	0	4
		% dans Level	0.0%	0.0%	3.4%	0.0%	
	(GA)	Effectif	0	0	1	1	2
		% dans Level	0.0%	0.0%	0.8%	2.9%	
	(5)	Effectif	0	2	0	0	2
		% dans Level	0.0%	7.1%	0.0%	0.0%	
	(R)	Effectif	1	4	5	1	11
		% dans Level	8.3%	14.3%	4.2%	2.9%	
Total		Effectif	12	28	118	34	192

Table 48: Results of the Respondents' Representations of the Arabic Sound /ġ/ in LA by Gender

			Gender		Total
			Male	Female	
HOU DO YOU WRITE ġ ^b	(G)	Effectif	7	3	10
		% dans Gender	10.0%	2.5%	
	(GH)	Effectif	58	105	163
		% dans Gender	82.9%	86.1%	
	(GHA)	Effectif	0	4	4
		% dans Gender	0.0%	3.3%	
	(GA)	Effectif	1	1	2
		% dans Gender	1.4%	0.8%	
	(5)	Effectif	2	0	2
		% dans Gender	2.9%	0.0%	
	(R)	Effectif	2	9	11
		% dans Gender	2.9%	7.4%	
Total		Effectif	70	122	192

Appendix 9: Results of the Respondents' Representations of the Arabic Sound /خ/ in LA

Table 49: Results of the Respondents' Representations of the Arabic Sound /خ/ in LA by Gender

			Gender		
			Male	Female	Total
HOU DO YOU WRITE χ^b	(KH)	Effectif	58	104	162
		% dans Gender	79.5%	81.3%	
	(5)	Effectif	12	20	32
		% dans Gender	16.4%	15.6%	
	(K)	Effectif	3	4	7
		% dans Gender	4.1%	3.1%	
Total		Effectif	73	128	201

Table 50: Results of the Respondents' Representations of the Arabic Sound /خ/ in LA by Region

			Residence				
			East	Centre	West	South	Total
HOU DO YOU WRITE ؟ ^b	(KH)	Effectif	36	91	24	11	162
		% dans Residence	81.8%	81.3%	85.7%	64.7%	
	(5)	Effectif	6	18	3	5	32
		% dans Residence	13.6%	16.1%	10.7%	29.4%	
	(K)	Effectif	2	3	1	1	7
		% dans Residence	4.5%	2.7%	3.6%	5.9%	
Total		Effectif	44	112	28	17	201

Table 51: Results of the Respondents' Representations of the Arabic Sound /خ/ in LA by Educational Level

			Educational Level				
			Mediate	Secondary	University	Post-graduation	Total
HOU DO YOU WRITE ϵ^b	(KH)	Effectif	8	16	107	31	162
		% dans Level	61.5%	57.1%	86.3%	86.1%	
	(5)	Effectif	4	11	16	1	32
		% dans Level	30.8%	39.3%	12.9%	2.8%	
	(K)	Effectif	1	1	1	4	7
		% dans Level	7.7%	3.6%	0.8%	11.1%	
Total		Effectif	13	28	124	36	201

Appendix 10: Results of the Respondents' Representations of the Arabic Sound /ح/ in LA

Table 52: Results of the Respondents' Representations of the Arabic Sound /ح/ in LA by Gender

			Gender		Total
			Male	Female	
HOU DO YOU WRITE χ^b	(7)	Effectif	28	46	74
		% dans Gender	35.4%	35.4%	
	(H)	Effectif	49	81	130
		% dans Gender	62.0%	62.3%	
	(HA)	Effectif	2	3	5
		% dans Gender	2.5%	2.3%	
Total		Effectif	79	130	209

Table 53: Results of the Respondents' Representations of the Arabic Sound /ح/ in LA by Region

			Residence				
			East	Centre	West	South	Total
HOU DO YOU WRITE ϵ^b	(7)	Effectif	15	46	8	5	74
		% dans Residence	34.1%	39.0%	27.6%	27.8%	
	(H)	Effectif	28	69	20	13	130
		% dans Residence	63.6%	58.5%	69.0%	72.2%	
	(HA)	Effectif	1	3	1	0	5
		% dans Residence	2.3%	2.5%	3.4%	0.0%	
Total		Effectif	44	118	29	18	209

Table 54: Results of the Respondents' Representations of the Arabic Sound /ح/ in LA by Educational Level

			Educational Level				
			Mediate	Secondary	University	Post-graduation	Total
HOU DO YOU WRITE ϵ^b	(7)	Effectif	7	13	42	12	74
		% dans Level	53.8%	43.3%	32.6%	32.4%	
	(H)	Effectif	6	17	82	25	130
		% dans Level	46.2%	56.7%	63.6%	67.6%	
	(HA)	Effectif	0	0	5	0	5
		% dans Level	0.0%	0.0%	3.9%	0.0%	
Total		Effectif	13	30	129	37	209

Appendix 11: Results of the Respondents' Representations of the Arabic Sound /ʕ/ in LA

Table 55: Results of the Respondents' Representations of the Arabic Sound /ʕ/ in LA by Gender

			Gender		Total
			Male	Female	
HOW DO YOU WRITE ء ^b	(AA)	Effectif	3	3	6
		% dans Gender	3.9%	2.4%	
	(A)	Effectif	52	80	132
		% dans Gender	67.5%	63.5%	
	(H)	Effectif	0	3	3
		% dans Gender	0.0%	2.4%	
	(E)	Effectif	9	9	18
		% dans Gender	11.7%	7.1%	
	(2)	Effectif	12	29	41
		% dans Gender	15.6%	23.0%	
	(1)	Effectif	1	2	3
		% dans Gender	1.3%	1.6%	
Total		Effectif	77	126	203

Table 56: Results of the Respondents' Representations of the Arabic Sound /ʕ/ in LA by Region

			Residence				
			East	Centre	West	South	Total
HOU DO YOU WRITE ʕ ^b	(AA)	Effectif	3	3	0	0	6
		% dans Residence	6.8%	2.6%	0.0%	0.0%	
	(A)	Effectif	25	82	12	13	132
		% dans Residence	56.8%	71.9%	41.4%	81.3%	
	(H)	Effectif	2	1	0	0	3
		% dans Residence	4.5%	0.9%	0.0%	0.0%	
	(E)	Effectif	5	0	12	1	18
		% dans Residence	11.4%	0.0%	41.4%	6.3%	
	(2)	Effectif	8	26	5	2	41
		% dans Residence	18.2%	22.8%	17.2%	12.5%	
	(1)	Effectif	1	2	0	0	3
		% dans Residence	2.3%	1.8%	0.0%	0.0%	
Total		Effectif	44	114	29	16	203

Appendix 12: Results of the Respondents' Script-Switching

Table 57: Results of the Respondents' Script-Switching by Age

less than 20 years old	Effectif	18	5	11	4	3	41
	% dans Age	43.9%	12.2%	26.8%	9.8%	7.3%	100.0%
	% dans I use both Arabic	21.2%	9.1%	18.0%	17.4%	16.7%	16.9%
	% du total	7.4%	2.1%	4.5%	1.7%	1.2%	16.9%
from 21 to 25 years old	Effectif	27	22	21	11	7	88
	% dans Age	30.7%	25.0%	23.9%	12.5%	8.0%	100.0%
	% dans I use both Arabic and	31.8%	40.0%	34.4%	47.8%	38.9%	36.4%
	% du total	11.2%	9.1%	8.7%	4.5%	2.9%	36.4%
from 26 to 30 years old	Effectif	17	11	9	6	5	48
	% dans Age	35.4%	22.9%	18.8%	12.5%	10.4%	100.0%
	% dans I use both Arabic and	20.0%	20.0%	14.8%	26.1%	27.8%	19.8%
	% du total	7.0%	4.5%	3.7%	2.5%	2.1%	19.8%
from 31 to 40 years old	Effectif	14	10	10	2	3	39
	% dans Age	35.9%	25.6%	25.6%	5.1%	7.7%	100.0%
	% dans I use both Arabic and	16.5%	18.2%	16.4%	8.7%	16.7%	16.1%
	% du total	5.8%	4.1%	4.1%	0.8%	1.2%	16.1%
more than 40 years old	Effectif	9	7	10	0	0	26
	% dans Age	34.6%	26.9%	38.5%	0.0%	0.0%	100.0%
	% dans I use both Arabic and	10.6%	12.7%	16.4%	0.0%	0.0%	10.7%
	% du total	3.7%	2.9%	4.1%	0.0%	0.0%	10.7%
Total	Effectif	85	55	61	23	18	242
	% dans Age	35.1%	22.7%	25.2%	9.5%	7.4%	100.0%
	% dans I use both Arabic and	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	35.1%	22.7%	25.2%	9.5%	7.4%	100.0%

Table 58: Results of the Respondents' Script-Switching by Gender

Gender		Never	Rarely	Sometimes	Generally	Always	Total
Male	Effectif	28	23	30	11	7	99
	% dans Gender	28.3%	23.2%	30.3%	11.1%	7.1%	100.0%
	% dans I use both Arabic	32.9%	41.8%	49.2%	47.8%	38.9%	40.9%
	% du total	11.6%	9.5%	12.4%	4.5%	2.9%	40.9%
Female	Effectif	57	32	31	12	11	143
	% dans Gender	39.9%	22.4%	21.7%	8.4%	7.7%	100.0%
	% dans I use both Arabic and	67.1%	58.2%	50.8%	52.2%	61.1%	59.1%
	% du total	23.6%	13.2%	12.8%	5.0%	4.5%	59.1%
Total	Effectif	85	55	61	23	18	242
	% dans Gender	35.1%	22.7%	25.2%	9.5%	7.4%	100.0%
	% dans I use both Arabic and	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	35.1%	22.7%	25.2%	9.5%	7.4%	100.0%

Table 59: Results of the Respondents' Script-Switching by Residence

Region		Never	Rarely	Sometimes	Generally	Always	Total
East	Effectif	15	14	21	4	1	55
	% dans Residence	27.3%	25.5%	38.2%	7.3%	1.8%	100.0%
	% dans I use both Arabic	17.6%	25.5%	34.4%	17.4%	5.6%	22.7%
	% du total	6.2%	5.8%	8.7%	1.7%	0.4%	22.7%
Centre	Effectif	51	24	23	15	8	121
	% dans Residence	42.1%	19.8%	19.0%	12.4%	6.6%	100.0%
	% dans I use both Arabic	60.0%	43.6%	37.7%	65.2%	44.4%	50.0%
	% du total	21.1%	9.9%	9.5%	6.2%	3.3%	50.0%
West	Effectif	5	8	12	0	9	34
	% dans Residence	14.7%	23.5%	35.3%	0.0%	26.5%	100.0%
	% dans I use both Arabic	5.9%	14.5%	19.7%	0.0%	50.0%	14.0%
	% du total	2.1%	3.3%	5.0%	0.0%	3.7%	14.0%
South	Effectif	14	9	5	4	0	32
	% dans Residence	43.8%	28.1%	15.6%	12.5%	0.0%	100.0%
	% dans I use both Arabic	16.5%	16.4%	8.2%	17.4%	0.0%	13.2%
	% du total	5.8%	3.7%	2.1%	1.7%	0.0%	13.2%
Total	Effectif	85	55	61	23	18	242
	% dans Residence	35.1%	22.7%	25.2%	9.5%	7.4%	100.0%
	% dans I use both Arabic	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	35.1%	22.7%	25.2%	9.5%	7.4%	100.0%

Table 60: Results of the Respondents' Script-Switching by Education

Education		Never	Rarely	Sometimes	Generally	Always	Total
Primary	Effectif	0	0	0	0	1	1
	% dans Educational Level	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	% dans I use both Arabic and	0.0%	0.0%	0.0%	0.0%	5.6%	0.4%
	% du total	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%
Mediate	Effectif	5	5	3	0	1	14
	% dans Educational Level	35.7%	35.7%	21.4%	0.0%	7.1%	100.0%
	% dans I use both Arabic and	5.9%	9.1%	4.9%	0.0%	5.6%	5.8%
	% du total	2.1%	2.1%	1.2%	0.0%	0.4%	5.8%
Secondary	Effectif	11	6	9	8	3	37
	% dans Educational Level	29.7%	16.2%	24.3%	21.6%	8.1%	100.0%
	% dans I use both Arabic and	12.9%	10.9%	14.8%	34.8%	16.7%	15.3%
	% du total	4.5%	2.5%	3.7%	3.3%	1.2%	15.3%
University	Effectif	53	38	35	14	11	151
	% dans Educational Level	35.1%	25.2%	23.2%	9.3%	7.3%	100.0%
	% dans I use both Arabic and	62.4%	69.1%	57.4%	60.9%	61.1%	62.4%
	% du total	21.9%	15.7%	14.5%	5.8%	4.5%	62.4%
Post-graduation	Effectif	16	6	14	1	2	39
	% dans Educational Level	41.0%	15.4%	35.9%	2.6%	5.1%	100.0%
	% dans I use both Arabic and	18.8%	10.9%	23.0%	4.3%	11.1%	16.1%
	% du total	6.6%	2.5%	5.8%	0.4%	0.8%	16.1%
Total	Effectif	85	55	61	23	18	242
	% dans Educational Level	35.1%	22.7%	25.2%	9.5%	7.4%	100.0%
	% dans I use both Arabic and	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	35.1%	22.7%	25.2%	9.5%	7.4%	100.0%

Appendix 13: Results of the Respondents' Script-Fusing

Table 61: Results of the Respondents' Script-Fusing by Age

		Never	Rarely	Sometimes	Generally	Always	
less than 20 years old	Effectif	24	2	9	3	3	41
	% dans Age	58.5%	4.9%	22.0%	7.3%	7.3%	100.0%
	% dans I mix between...	14.6%	7.1%	40.9%	27.3%	18.8%	17.0%
	% du total	10.0%	0.8%	3.7%	1.2%	1.2%	17.0%
from 21 to 25 years old	Effectif	57	16	4	5	6	88
	% dans Age	64.8%	18.2%	4.5%	5.7%	6.8%	100.0%
	% dans I mix between...	34.8%	57.1%	18.2%	45.5%	37.5%	36.5%
	% du total	23.7%	6.6%	1.7%	2.1%	2.5%	36.5%
from 26 to 30 years old	Effectif	32	7	3	1	5	48
	% dans Age	66.7%	14.6%	6.3%	2.1%	10.4%	100.0%
	% dans I mix between...	19.5%	25.0%	13.6%	9.1%	31.3%	19.9%
	% du total	13.3%	2.9%	1.2%	0.4%	2.1%	19.9%
from 31 to 40 years old	Effectif	30	2	4	2	1	39
	% dans Age	76.9%	5.1%	10.3%	5.1%	2.6%	100.0%
	% dans I mix between...	18.3%	7.1%	18.2%	18.2%	6.3%	16.2%
	% du total	12.4%	0.8%	1.7%	0.8%	0.4%	16.2%
more than 40 years old	Effectif	21	1	2	0	1	25
	% dans Age	84.0%	4.0%	8.0%	0.0%	4.0%	100.0%
	% dans I mix between...	12.8%	3.6%	9.1%	0.0%	6.3%	10.4%
	% du total	8.7%	0.4%	0.8%	0.0%	0.4%	10.4%
Total	Effectif	164	28	22	11	16	241
	% dans Age	68.0%	11.6%	9.1%	4.6%	6.6%	100.0%
	% dans I mix between...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	68.0%	11.6%	9.1%	4.6%	6.6%	100.0%

Table 62: Results of the Respondents' Script-Fusing by Gender

		Never	Rarely	Sometimes	Generally	Always	
Male	Effectif	60	13	11	3	12	99
	% dans Gender	60.6%	13.1%	11.1%	3.0%	12.1%	100.0%
	% dans I mix between...	36.6%	46.4%	50.0%	27.3%	75.0%	41.1%
	% du total	24.9%	5.4%	4.6%	1.2%	5.0%	41.1%
Female	Effectif	104	15	11	8	4	142
	% dans Gender	73.2%	10.6%	7.7%	5.6%	2.8%	100.0%
	% dans I mix between...	63.4%	53.6%	50.0%	72.7%	25.0%	58.9%
	% du total	43.2%	6.2%	4.6%	3.3%	1.7%	58.9%
Total	Effectif	164	28	22	11	16	241
	% dans Gender	68.0%	11.6%	9.1%	4.6%	6.6%	100.0%
	% dans I mix between...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	68.0%	11.6%	9.1%	4.6%	6.6%	100.0%

Table 63: Results of the Respondents' Script-Fusing by Region

Region		Never	Rarely	Sometimes	Generally	Always	Total
East	Effectif	37	7	8	2	1	55
	% dans Residence	67.3%	12.7%	14.5%	3.6%	1.8%	100.0%
	% dans I mix between	22.6%	25.0%	36.4%	18.2%	6.3%	22.8%
	% du total	15.4%	2.9%	3.3%	0.8%	0.4%	22.8%
Centre	Effectif	89	12	10	5	4	120
	% dans Residence	74.2%	10.0%	8.3%	4.2%	3.3%	100.0%
	% dans I mix between	54.3%	42.9%	45.5%	45.5%	25.0%	49.8%
	% du total	36.9%	5.0%	4.1%	2.1%	1.7%	49.8%
West	Effectif	16	4	1	2	11	34
	% dans Residence	47.1%	11.8%	2.9%	5.9%	32.4%	100.0%
	% dans I mix between	9.8%	14.3%	4.5%	18.2%	68.8%	14.1%
	% du total	6.6%	1.7%	0.4%	0.8%	4.6%	14.1%
South	Effectif	22	5	3	2	0	32
	% dans Residence	68.8%	15.6%	9.4%	6.3%	0.0%	100.0%
	% dans I mix between	13.4%	17.9%	13.6%	18.2%	0.0%	13.3%
	% du total	9.1%	2.1%	1.2%	0.8%	0.0%	13.3%
Total	Effectif	164	28	22	11	16	241
	% dans Residence	68.0%	11.6%	9.1%	4.6%	6.6%	100.0%
	% dans I mix between	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	68.0%	11.6%	9.1%	4.6%	6.6%	100.0%

Table 64: Results of the Respondents' Script-Fusing by Educational Level

Education		Never	Rarely	Sometimes	Generally	Always	Total
Primary	Effectif	0	0	0	0	1	1
	% dans Educational Level	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	% dans I mix between...	0.0%	0.0%	0.0%	0.0%	6.3%	0.4%
	% du total	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%
Mediate	Effectif	7	0	2	1	4	14
	% dans Educational Level	50.0%	0.0%	14.3%	7.1%	28.6%	100.0%
	% dans I mix between...	4.3%	0.0%	9.1%	9.1%	25.0%	5.8%
	% du total	2.9%	0.0%	0.8%	0.4%	1.7%	5.8%
Secondary	Effectif	16	5	9	2	4	36
	% dans Educational Level	44.4%	13.9%	25.0%	5.6%	11.1%	100.0%
	% dans I mix between...	9.8%	17.9%	40.9%	18.2%	25.0%	14.9%
	% du total	6.6%	2.1%	3.7%	0.8%	1.7%	14.9%
University	Effectif	109	16	11	8	7	151
	% dans Educational Level	72.2%	10.6%	7.3%	5.3%	4.6%	100.0%
	% dans I mix between...	66.5%	57.1%	50.0%	72.7%	43.8%	62.7%
	% du total	45.2%	6.6%	4.6%	3.3%	2.9%	62.7%
Post- graduation	Effectif	32	7	0	0	0	39
	% dans Educational Level	82.1%	17.9%	0.0%	0.0%	0.0%	100.0%
	% dans I mix between...	19.5%	25.0%	0.0%	0.0%	0.0%	16.2%
	% du total	13.3%	2.9%	0.0%	0.0%	0.0%	16.2%
Total	Effectif	164	28	22	11	16	241
	% dans Educational Level	68.0%	11.6%	9.1%	4.6%	6.6%	100.0%
	% dans I mix between...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	68.0%	11.6%	9.1%	4.6%	6.6%	100.0%

Appendix 14: Results of the Respondents' Use of the Arabic Script to Represent French and English

Table 65: Results of the Respondents' Use of the Arabic Script to Represent French and English by Age

Age		Never	Rarely	Sometimes	Generally	Always	Total
less than 20 years old	Effectif	15	8	8	7	3	41
	% dans Age	36.6%	19.5%	19.5%	17.1%	7.3%	100.0%
	% dans I write some French or ...	14.9%	16.3%	17.0%	28.0%	15.0%	16.9%
	% du total	6.2%	3.3%	3.3%	2.9%	1.2%	16.9%
from 21 to 25 years old	Effectif	39	17	15	9	9	89
	% dans Age	43.8%	19.1%	16.9%	10.1%	10.1%	100.0%
	% dans I write some French or ...	38.6%	34.7%	31.9%	36.0%	45.0%	36.8%
	% du total	16.1%	7.0%	6.2%	3.7%	3.7%	36.8%
from 26 to 30 years old	Effectif	17	9	9	6	6	47
	% dans Age	36.2%	19.1%	19.1%	12.8%	12.8%	100.0%
	% dans I write some French or ...	16.8%	18.4%	19.1%	24.0%	30.0%	19.4%
	% du total	7.0%	3.7%	3.7%	2.5%	2.5%	19.4%
from 31 to 40 years old	Effectif	16	10	11	1	1	39
	% dans Age	41.0%	25.6%	28.2%	2.6%	2.6%	100.0%
	% dans I write some French or ...	15.8%	20.4%	23.4%	4.0%	5.0%	16.1%
	% du total	6.6%	4.1%	4.5%	0.4%	0.4%	16.1%
more than 40 years old	Effectif	14	5	4	2	1	26
	% dans Age	53.8%	19.2%	15.4%	7.7%	3.8%	100.0%
	% dans I write some French or ...	13.9%	10.2%	8.5%	8.0%	5.0%	10.7%
	% du total	5.8%	2.1%	1.7%	0.8%	0.4%	10.7%
Total	Effectif	101	49	47	25	20	242
	% dans Age	41.7%	20.2%	19.4%	10.3%	8.3%	100.0%
	% dans I write some French or ...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	41.7%	20.2%	19.4%	10.3%	8.3%	100.0%

Table 66: Results of the Respondents' Use of the Arabic Script to Represent French and English by Gender

Gender		Never	Rarely	Sometimes	Generally	Always	Total
Male	Effectif	32	22	22	15	8	99
	% dans Gender	32.3%	22.2%	22.2%	15.2%	8.1%	100.0%
	% dans I write some French or ...	31.7%	44.9%	46.8%	60.0%	40.0%	40.9%
	% du total	13.2%	9.1%	9.1%	6.2%	3.3%	40.9%
Female	Effectif	69	27	25	10	12	143
	% dans Gender	48.3%	18.9%	17.5%	7.0%	8.4%	100.0%
	% dans I write some French or ...	68.3%	55.1%	53.2%	40.0%	60.0%	59.1%
	% du total	28.5%	11.2%	10.3%	4.1%	5.0%	59.1%
Total	Effectif	101	49	47	25	20	242
	% dans Gender	41.7%	20.2%	19.4%	10.3%	8.3%	100.0%
	% dans I write some French or ...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	41.7%	20.2%	19.4%	10.3%	8.3%	100.0%

Table 67: Results of the Respondents' Use of the Arabic Script to Represent French and English by Region

Region		Never	Rarely	Sometimes	Generally	Always	Total
East	Effectif	23	14	7	4	6	54
	% dans Residence	42.6%	25.9%	13.0%	7.4%	11.1%	100.0%
	% dans I write some French or ...	22.8%	28.6%	14.9%	16.0%	30.0%	22.3%
	% du total	9.5%	5.8%	2.9%	1.7%	2.5%	22.3%
Centre	Effectif	59	21	20	13	9	122
	% dans Residence	48.4%	17.2%	16.4%	10.7%	7.4%	100.0%
	% dans I write some French or ...	58.4%	42.9%	42.6%	52.0%	45.0%	50.4%
	% du total	24.4%	8.7%	8.3%	5.4%	3.7%	50.4%
West	Effectif	5	8	14	3	4	34
	% dans Residence	14.7%	23.5%	41.2%	8.8%	11.8%	100.0%
	% dans I write some French or ...	5.0%	16.3%	29.8%	12.0%	20.0%	14.0%
	% du total	2.1%	3.3%	5.8%	1.2%	1.7%	14.0%
South	Effectif	14	6	6	5	1	32
	% dans Residence	43.8%	18.8%	18.8%	15.6%	3.1%	100.0%
	% dans I write some French or ...	13.9%	12.2%	12.8%	20.0%	5.0%	13.2%
	% du total	5.8%	2.5%	2.5%	2.1%	0.4%	13.2%
Total	Effectif	101	49	47	25	20	242
	% dans Residence	41.7%	20.2%	19.4%	10.3%	8.3%	100.0%
	% dans I write some French or ...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	41.7%	20.2%	19.4%	10.3%	8.3%	100.0%

Table 68: Results of the Respondents' Use of the Arabic Script to Represent French and English by Educational Level

Education		Never	Rarely	Sometimes	Generally	Always	Total
Primary	Frequency	0	0	1	0	0	1
	% in Educational Level	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%
	% in I write some French or ...	0.0%	0.0%	2.1%	0.0%	0.0%	0.4%
	% total	0.0%	0.0%	0.4%	0.0%	0.0%	0.4%
Mediate	Effectif	5	2	5	3	0	15
	% in Educational Level	33.3%	13.3%	33.3%	20.0%	0.0%	100.0%
	% in I write some French or ...	5.0%	4.1%	10.6%	12.0%	0.0%	6.2%
	% du total	2.1%	0.8%	2.1%	1.2%	0.0%	6.2%
Secondary	Effectif	11	7	10	5	4	37
	% in Educational Level	29.7%	18.9%	27.0%	13.5%	10.8%	100.0%
	% in I write some French or ...	10.9%	14.3%	21.3%	20.0%	20.0%	15.3%
	% du total	4.5%	2.9%	4.1%	2.1%	1.7%	15.3%
University	Effectif	65	28	27	16	14	150
	% in Educational Level	43.3%	18.7%	18.0%	10.7%	9.3%	100.0%
	% in I write some French or ...	64.4%	57.1%	57.4%	64.0%	70.0%	62.0%
	% du total	26.9%	11.6%	11.2%	6.6%	5.8%	62.0%
Post-graduation	Effectif	20	12	4	1	2	39
	% in Educational Level	51.3%	30.8%	10.3%	2.6%	5.1%	100.0%
	% in I write some French or ...	19.8%	24.5%	8.5%	4.0%	10.0%	16.1%
	% du total	8.3%	5.0%	1.7%	0.4%	0.8%	16.1%
Total	Effectif	101	49	47	25	20	242
	% in Educational Level	41.7%	20.2%	19.4%	10.3%	8.3%	100.0%
	% in I write some French or ...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	41.7%	20.2%	19.4%	10.3%	8.3%	100.0%

Appendix 15: Results of the Respondents' Use of LA because of its Linguistic Facilities

Table 69: Results of the Respondents' Use of LA because it Enables the Use of Shortened Forms of Writing by Age

Age		Never	Rarely	Sometimes	Generally	Always	Total
less than 20 years old	Effectif	2	1	4	6	22	35
	% dans Age	5.7%	2.9%	11.4%	17.1%	62.9%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	18.2%	10.0%	13.3%	14.0%	22.7%	18.3%
	% du total	1.0%	0.5%	2.1%	3.1%	11.5%	18.3%
from 21 to 25 years old	Effectif	2	3	12	16	48	81
	% dans Age	2.5%	3.7%	14.8%	19.8%	59.3%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	18.2%	30.0%	40.0%	37.2%	49.5%	42.4%
	% du total	1.0%	1.6%	6.3%	8.4%	25.1%	42.4%
from 26 to 30 years old	Effectif	1	2	8	10	15	36
	% dans Age	2.8%	5.6%	22.2%	27.8%	41.7%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	9.1%	20.0%	26.7%	23.3%	15.5%	18.8%
	% du total	0.5%	1.0%	4.2%	5.2%	7.9%	18.8%
from 31 to 40 years old	Effectif	2	3	4	7	7	23
	% dans Age	8.7%	13.0%	17.4%	30.4%	30.4%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	18.2%	30.0%	13.3%	16.3%	7.2%	12.0%
	% du total	1.0%	1.6%	2.1%	3.7%	3.7%	12.0%
more than 40 years old	Effectif	4	1	2	4	5	16
	% dans Age	25.0%	6.3%	12.5%	25.0%	31.3%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	36.4%	10.0%	6.7%	9.3%	5.2%	8.4%
	% du total	2.1%	0.5%	1.0%	2.1%	2.6%	8.4%
Total	Effectif	11	10	30	43	97	191
	% dans Age	5.8%	5.2%	15.7%	22.5%	50.8%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	5.8%	5.2%	15.7%	22.5%	50.8%	100.0%

Table 70: Results of the Respondents' Use of LA because it Enables the Use of Shortened Forms of Writing by gender

Gender		Never	Rarely	Sometimes	Generally	Always	Total
Male	Effectif	6	5	18	20	25	74
	% dans Gender	8.1%	6.8%	24.3%	27.0%	33.8%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	54.5%	50.0%	60.0%	46.5%	25.8%	38.7%
	% du total	3.1%	2.6%	9.4%	10.5%	13.1%	38.7%
Female	Effectif	5	5	12	23	72	117
	% dans Gender	4.3%	4.3%	10.3%	19.7%	61.5%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	45.5%	50.0%	40.0%	53.5%	74.2%	61.3%
	% du total	2.6%	2.6%	6.3%	12.0%	37.7%	61.3%
Total	Effectif	11	10	30	43	97	191
	% dans Gender	5.8%	5.2%	15.7%	22.5%	50.8%	100.0%
	% dans it enables me to use abbreviations, symbols...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	5.8%	5.2%	15.7%	22.5%	50.8%	100.0%

Table 71: Results of the Respondents' Use of LA because it Enables the Use of Shortened Forms of Writing by Educational Level

Education		Never	Rarely	Sometimes	Generally	Always	Total
Primary	Effectif	0	0	0	0	1	1
	% dans Educational Level	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	0.0%	0.0%	0.0%	0.0%	1.0%	0.5%
	% du total	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%
Mediate	Effectif	0	1	3	2	6	12
	% dans Educational Level	0.0%	8.3%	25.0%	16.7%	50.0%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	0.0%	10.0%	10.0%	4.7%	6.2%	6.3%
	% du total	0.0%	0.5%	1.6%	1.0%	3.1%	6.3%
Secondary	Effectif	1	0	7	8	14	30
	% dans Educational Level	3.3%	0.0%	23.3%	26.7%	46.7%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	9.1%	0.0%	23.3%	18.6%	14.4%	15.7%
	% du total	0.5%	0.0%	3.7%	4.2%	7.3%	15.7%
University	Effectif	8	5	13	24	67	117
	% dans Educational Level	6.8%	4.3%	11.1%	20.5%	57.3%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	72.7%	50.0%	43.3%	55.8%	69.1%	61.3%
	% du total	4.2%	2.6%	6.8%	12.6%	35.1%	61.3%
Post-graduation	Effectif	2	4	7	9	9	31
	% dans Educational Level	6.5%	12.9%	22.6%	29.0%	29.0%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	18.2%	40.0%	23.3%	20.9%	9.3%	16.2%
	% du total	1.0%	2.1%	3.7%	4.7%	4.7%	16.2%
Total	Effectif	11	10	30	43	97	191
	% dans Educational Level	5.8%	5.2%	15.7%	22.5%	50.8%	100.0%
	% dans it enables me to use abbreviations, symbols, ...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	5.8%	5.2%	15.7%	22.5%	50.8%	100.0%

Table 72: Results of the Respondents' Use of LA because the Vernacular Contains many Foreign Words by Gender

Gender		Never	Rarely	Sometimes	Generally	Always	Total
Male	Effectif	6	6	21	22	17	72
	% dans Gender	8.3%	8.3%	29.2%	30.6%	23.6%	100.0%
	% dans because the vernacular contains many foreign words	50.0%	46.2%	55.3%	30.6%	32.1%	38.3%
	% du total	3.2%	3.2%	11.2%	11.7%	9.0%	38.3%
Female	Effectif	6	7	17	50	36	116
	% dans Gender	5.2%	6.0%	14.7%	43.1%	31.0%	100.0%
	% dans because the vernacular contains many foreign words	50.0%	53.8%	44.7%	69.4%	67.9%	61.7%
	% du total	3.2%	3.7%	9.0%	26.6%	19.1%	61.7%
Total	Effectif	12	13	38	72	53	188
	% dans Gender	6.4%	6.9%	20.2%	38.3%	28.2%	100.0%
	% dans because the vernacular contains many foreign words	100.0 %	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	6.4%	6.9%	20.2%	38.3%	28.2%	100.0%

Table 73: Results of the Respondents' Use of LA because the Vernacular Contains many Foreign Words by Educational Level

Education		Never	Rarely	Sometimes	Generally	Always	Total
Primary	Effectif	0	0	0	1	0	1
	% dans Educational Level	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
	% dans because the vernacular contains many foreign words	0.0%	0.0%	0.0%	1.4%	0.0%	0.5%
	% du total	0.0%	0.0%	0.0%	0.5%	0.0%	0.5%
Mediate	Effectif	1	1	4	1	5	12
	% dans Educational Level	8.3%	8.3%	33.3%	8.3%	41.7%	100.0%
	% dans because the vernacular contains many foreign words	8.3%	7.7%	10.5%	1.4%	9.4%	6.4%
	% du total	0.5%	0.5%	2.1%	0.5%	2.7%	6.4%
Secondary	Effectif	0	2	6	10	12	30
	% dans Educational Level	0.0%	6.7%	20.0%	33.3%	40.0%	100.0%
	% dans because the vernacular contains many foreign words	0.0%	15.4%	15.8%	13.9%	22.6%	16.0%
	% du total	0.0%	1.1%	3.2%	5.3%	6.4%	16.0%
University	Effectif	10	6	23	47	30	116
	% dans Educational Level	8.6%	5.2%	19.8%	40.5%	25.9%	100.0%
	% dans because the vernacular contains many foreign words	83.3%	46.2%	60.5%	65.3%	56.6%	61.7%
	% du total	5.3%	3.2%	12.2%	25.0%	16.0%	61.7%
Post-graduation	Effectif	1	4	5	13	6	29
	% dans Educational Level	3.4%	13.8%	17.2%	44.8%	20.7%	100.0%
	% dans because the vernacular contains many foreign words	8.3%	30.8%	13.2%	18.1%	11.3%	15.4%
	% du total	0.5%	2.1%	2.7%	6.9%	3.2%	15.4%
Total	Effectif	12	13	38	72	53	188
	% dans Educational Level	6.4%	6.9%	20.2%	38.3%	28.2%	100.0%
	% dans because the vernacular contains many foreign words	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	6.4%	6.9%	20.2%	38.3%	28.2%	100.0%

Table 74: Results of the Respondents' Use of LA because the Vernacular Contains many Foreign Words by Age

Age		Never	Rarely	Sometimes	Generally	Always	Total
less than 20 years old	Effectif	1	1	9	12	12	35
	% dans Age	2.9%	2.9%	25.7%	34.3%	34.3%	100.0%
	% dans because the vernacular contains many foreign words	8.3%	7.7%	23.7%	16.7%	22.6%	18.6%
	% du total	0.5%	0.5%	4.8%	6.4%	6.4%	18.6%
from 21 to 25 years old	Effectif	3	5	8	33	31	80
	% dans Age	3.8%	6.3%	10.0%	41.3%	38.8%	100.0%
	% dans because the vernacular contains many foreign words	25.0%	38.5%	21.1%	45.8%	58.5%	42.6%
	% du total	1.6%	2.7%	4.3%	17.6%	16.5%	42.6%
from 26 to 30 years old	Effectif	2	2	12	12	8	36
	% dans Age	5.6%	5.6%	33.3%	33.3%	22.2%	100.0%
	% dans because the vernacular contains many foreign words	16.7%	15.4%	31.6%	16.7%	15.1%	19.1%
	% du total	1.1%	1.1%	6.4%	6.4%	4.3%	19.1%
from 31 to 40 years old	Effectif	2	3	5	11	1	22
	% dans Age	9.1%	13.6%	22.7%	50.0%	4.5%	100.0%
	% dans because the vernacular contains many foreign words	16.7%	23.1%	13.2%	15.3%	1.9%	11.7%
	% du total	1.1%	1.6%	2.7%	5.9%	0.5%	11.7%
more than 40 years old	Effectif	4	2	4	4	1	15
	% dans Age	26.7%	13.3%	26.7%	26.7%	6.7%	100.0%
	% dans because the vernacular contains many foreign words	33.3%	15.4%	10.5%	5.6%	1.9%	8.0%
	% du total	2.1%	1.1%	2.1%	2.1%	0.5%	8.0%
Total	Effectif	12	13	38	72	53	188
	% dans Age	6.4%	6.9%	20.2%	38.3%	28.2%	100.0%
	% dans because the vernacular contains many foreign words	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	6.4%	6.9%	20.2%	38.3%	28.2%	100.0%

Appendix 16: Results of the Respondents' Use of LA due to their Abilities and Attitudes towards the Scripts

Table 75: Responses to “*Latinised Arabic is more suitable*” According to Gender

Gender		Never	Rarely	Sometimes	Generally	Always	Total
Male	Effectif	5	5	27	14	22	73
	% dans Gender	6.8%	6.8%	37.0%	19.2%	30.1%	100.0%
	% dans Latin script is more suitable	55.6%	41.7%	55.1%	29.2%	30.6%	38.4%
	% du total	2.6%	2.6%	14.2%	7.4%	11.6%	38.4%
Female	Effectif	4	7	22	34	50	117
	% dans Gender	3.4%	6.0%	18.8%	29.1%	42.7%	100.0%
	% dans Latin script is more suitable	44.4%	58.3%	44.9%	70.8%	69.4%	61.6%
	% du total	2.1%	3.7%	11.6%	17.9%	26.3%	61.6%
Total	Effectif	9	12	49	48	72	190
	% dans Gender	4.7%	6.3%	25.8%	25.3%	37.9%	100.0%
	% dans Latin script is more suitable	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	4.7%	6.3%	25.8%	25.3%	37.9%	100.0%

Table 76: Responses to “*Latinised Arabic is more suitable*” According to Region

Region		Never	Rarely	Sometimes	Generally	Always	Total
East	Effectif	4	2	13	10	6	35
	% dans Residence	11.4%	5.7%	37.1%	28.6%	17.1%	100.0%
	% dans Latin script is more suitable	44.4%	16.7%	26.5%	20.8%	8.3%	18.4%
	% du total	2.1%	1.1%	6.8%	5.3%	3.2%	18.4%
Centre	Effectif	1	6	20	30	52	109
	% dans Residence	0.9%	5.5%	18.3%	27.5%	47.7%	100.0%
	% dans Latin script is more suitable	11.1%	50.0%	40.8%	62.5%	72.2%	57.4%
	% du total	0.5%	3.2%	10.5%	15.8%	27.4%	57.4%
West	Effectif	1	2	10	4	12	29
	% dans Residence	3.4%	6.9%	34.5%	13.8%	41.4%	100.0%
	% dans Latin script is more suitable	11.1%	16.7%	20.4%	8.3%	16.7%	15.3%
	% du total	0.5%	1.1%	5.3%	2.1%	6.3%	15.3%
South	Effectif	3	2	6	4	2	17
	% dans Residence	17.6%	11.8%	35.3%	23.5%	11.8%	100.0%
	% dans Latin script is more suitable	33.3%	16.7%	12.2%	8.3%	2.8%	8.9%
	% du total	1.6%	1.1%	3.2%	2.1%	1.1%	8.9%
Total	Effectif	9	12	49	48	72	190
	% dans Residence	4.7%	6.3%	25.8%	25.3%	37.9%	100.0%
	% dans Latin script is more suitable	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	4.7%	6.3%	25.8%	25.3%	37.9%	100.0%

Table 77: Responses to “*Latinised Arabic is easier for me to use*” According to Age

Age		Never	Rarely	Sometimes	Generally	Always	Total
less than 20 years old	Effectif	2	0	7	4	22	35
	% dans Age	5.7%	0.0%	20.0%	11.4%	62.9%	100.0%
	% dans Latin script is easier for me to use	10.0%	0.0%	31.8%	9.8%	22.2%	18.6%
	% du total	1.1%	0.0%	3.7%	2.1%	11.7%	18.6%
from 21 to 25 years old	Effectif	7	3	3	19	48	80
	% dans Age	8.8%	3.8%	3.8%	23.8%	60.0%	100.0%
	% dans Latin script is easier for me to use	35.0%	50.0%	13.6%	46.3%	48.5%	42.6%
	% du total	3.7%	1.6%	1.6%	10.1%	25.5%	42.6%
from 26 to 30 years old	Effectif	3	2	6	9	16	36
	% dans Age	8.3%	5.6%	16.7%	25.0%	44.4%	100.0%
	% dans Latin script is easier for me to use	15.0%	33.3%	27.3%	22.0%	16.2%	19.1%
	% du total	1.6%	1.1%	3.2%	4.8%	8.5%	19.1%
from 31 to 40 years old	Effectif	4	0	4	6	8	22
	% dans Age	18.2%	0.0%	18.2%	27.3%	36.4%	100.0%
	% dans Latin script is easier for me to use	20.0%	0.0%	18.2%	14.6%	8.1%	11.7%
	% du total	2.1%	0.0%	2.1%	3.2%	4.3%	11.7%
more than 40 years old	Effectif	4	1	2	3	5	15
	% dans Age	26.7%	6.7%	13.3%	20.0%	33.3%	100.0%
	% dans Latin script is easier for me to use	20.0%	16.7%	9.1%	7.3%	5.1%	8.0%
	% du total	2.1%	0.5%	1.1%	1.6%	2.7%	8.0%
Total	Effectif	20	6	22	41	99	188
	% dans Age	10.6%	3.2%	11.7%	21.8%	52.7%	100.0%
	% dans Latin script is easier for me to use	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	10.6%	3.2%	11.7%	21.8%	52.7%	100.0%

Table 78: Responses to “*Latinised Arabic is easier for me to use*” According to Gender

Gender		Never	Rarely	Sometimes	Generally	Always	Total
Male	Effectif	13	4	11	16	30	74
	% dans Gender	17.6%	5.4%	14.9%	21.6%	40.5%	100.0%
	% dans Latin script is easier for me to use	65.0%	66.7%	50.0%	39.0%	30.3%	39.4%
	% du total	6.9%	2.1%	5.9%	8.5%	16.0%	39.4%
Female	Effectif	7	2	11	25	69	114
	% dans Gender	6.1%	1.8%	9.6%	21.9%	60.5%	100.0%
	% dans Latin script is easier for me to use	35.0%	33.3%	50.0%	61.0%	69.7%	60.6%
	% du total	3.7%	1.1%	5.9%	13.3%	36.7%	60.6%
Total	Effectif	20	6	22	41	99	188
	% dans Gender	10.6%	3.2%	11.7%	21.8%	52.7%	100.0%
	% dans Latin script is easier for me to use	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	10.6%	3.2%	11.7%	21.8%	52.7%	100.0%

Table 79: Responses to “*Latinised Arabic is easier for me to use*” According to Region

Region		Never	Rarely	Sometimes	Generally	Always	Total
East	Effectif	8	1	6	8	12	35
	% dans Residence	22.9%	2.9%	17.1%	22.9%	34.3%	100.0%
	% dans Latin script is easier for me to use	40.0%	16.7%	27.3%	19.5%	12.1%	18.6%
	% du total	4.3%	0.5%	3.2%	4.3%	6.4%	18.6%
Centre	Effectif	6	2	7	25	68	108
	% dans Residence	5.6%	1.9%	6.5%	23.1%	63.0%	100.0%
	% dans Latin script is easier for me to use	30.0%	33.3%	31.8%	61.0%	68.7%	57.4%
	% du total	3.2%	1.1%	3.7%	13.3%	36.2%	57.4%
West	Effectif	1	2	6	4	16	29
	% dans Residence	3.4%	6.9%	20.7%	13.8%	55.2%	100.0%
	% dans Latin script is easier for me to use	5.0%	33.3%	27.3%	9.8%	16.2%	15.4%
	% du total	0.5%	1.1%	3.2%	2.1%	8.5%	15.4%
South	Effectif	5	1	3	4	3	16
	% dans Residence	31.3%	6.3%	18.8%	25.0%	18.8%	100.0%
	% dans Latin script is easier for me to use	25.0%	16.7%	13.6%	9.8%	3.0%	8.5%
	% du total	2.7%	0.5%	1.6%	2.1%	1.6%	8.5%
Total	Effectif	20	6	22	41	99	188
	% dans Residence	10.6%	3.2%	11.7%	21.8%	52.7%	100.0%
	% dans Latin script is easier for me to use	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	10.6%	3.2%	11.7%	21.8%	52.7%	100.0%

Table 80: Responses to “*Latinised Arabic is easier for me to use*” According to Education

Education		Never	Rarely	Sometimes	Generally	Always	Total
Primary	Effectif	0	0	0	0	1	1
	% dans Educational Level	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	% dans Latin script is easier for me to use	0.0%	0.0%	0.0%	0.0%	1.0%	0.5%
	% du total	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%
Mediate	Effectif	3	0	2	0	7	12
	% dans Educational Level	25.0%	0.0%	16.7%	0.0%	58.3%	100.0%
	% dans Latin script is easier for me to use	15.0%	0.0%	9.1%	0.0%	7.1%	6.4%
	% du total	1.6%	0.0%	1.1%	0.0%	3.7%	6.4%
Secondary	Effectif	2	2	4	6	16	30
	% dans Educational Level	6.7%	6.7%	13.3%	20.0%	53.3%	100.0%
	% dans Latin script is easier for me to use	10.0%	33.3%	18.2%	14.6%	16.2%	16.0%
	% du total	1.1%	1.1%	2.1%	3.2%	8.5%	16.0%
University	Effectif	10	3	10	28	65	116
	% dans Educational Level	8.6%	2.6%	8.6%	24.1%	56.0%	100.0%
	% dans Latin script is easier for me to use	50.0%	50.0%	45.5%	68.3%	65.7%	61.7%
	% du total	5.3%	1.6%	5.3%	14.9%	34.6%	61.7%
Post-graduation	Effectif	5	1	6	7	10	29
	% dans Educational Level	17.2%	3.4%	20.7%	24.1%	34.5%	100.0%
	% dans Latin script is easier for me to use	25.0%	16.7%	27.3%	17.1%	10.1%	15.4%
	% du total	2.7%	0.5%	3.2%	3.7%	5.3%	15.4%
Total	Effectif	20	6	22	41	99	188
	% dans Educational Level	10.6%	3.2%	11.7%	21.8%	52.7%	100.0%
	% dans Latin script is easier for me to use	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	10.6%	3.2%	11.7%	21.8%	52.7%	100.0%

Table 81: Berbers' Responses to the Statement "*Latin script is more suitable*"

Berbers		Never	Sometimes	Generally	Always	Total
Kabyles	Effectif	1	3	7	17	28
	% dans Wilaya	3.6%	10.7%	25.0%	60.7%	100.0%
	% dans Latin script is more suitable	33.3%	60.0%	38.9%	77.3%	58.3%
	% du total	2.1%	6.3%	14.6%	35.4%	58.3%
Shawias	Effectif	2	2	7	1	12
	% dans Wilaya	16.7%	16.7%	58.3%	8.3%	100.0%
	% dans Latin script is more suitable	66.7%	40.0%	38.9%	4.5%	25.0%
	% du total	4.2%	4.2%	14.6%	2.1%	25.0%
Bouira	Effectif	0	0	4	4	8
	% dans Wilaya	0.0%	0.0%	50.0%	50.0%	100.0%
	% dans Latin script is more suitable	0.0%	0.0%	22.2%	18.2%	16.7%
	% du total	0.0%	0.0%	8.3%	8.3%	16.7%
Total	Effectif	3	5	18	22	48
	% dans Wilaya	6.3%	10.4%	37.5%	45.8%	100.0%
	% dans Latin script is more suitable	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	6.3%	10.4%	37.5%	45.8%	100.0%

Table 82: Berbers' Responses to the Statement "*I spend more time when I use the Arabic script*"

Berbers		Never	Rarely	Sometimes	Generally	Always	Total
Kabyles	Effectif	5	1	8	6	9	29
	% dans Wilaya	17.2%	3.4%	27.6%	20.7%	31.0%	100.0%
	% dans I spend more time when I use the Arabic script	62.5%	14.3%	66.7%	60.0%	75.0%	59.2%
	% du total	10.2%	2.0%	16.3%	12.2%	18.4%	59.2%
Shawias	Effectif	3	5	3	0	1	12
	% dans Wilaya	25.0%	41.7%	25.0%	0.0%	8.3%	100.0%
	% dans I spend more time when I use the Arabic script	37.5%	71.4%	25.0%	0.0%	8.3%	24.5%
	% du total	6.1%	10.2%	6.1%	0.0%	2.0%	24.5%
Bouira	Effectif	0	1	1	4	2	8
	% dans Wilaya	0.0%	12.5%	12.5%	50.0%	25.0%	100.0%
	% dans I spend more time when I use the Arabic script	0.0%	14.3%	8.3%	40.0%	16.7%	16.3%
	% du total	0.0%	2.0%	2.0%	8.2%	4.1%	16.3%
Total	Effectif	8	7	12	10	12	49
	% dans Wilaya	16.3%	14.3%	24.5%	20.4%	24.5%	100.0%
	% dans I spend more time when I use the Arabic script	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	16.3%	14.3%	24.5%	20.4%	24.5%	100.0%

Table 83: Berbers' Responses to the Statement "*Latin script is easier for me to use*"

Berbers		Never	Rarely	Sometimes	Generally	Always	Total
Kabyles	Effectif	2	0	2	4	21	29
	% dans Wilaya	6.9%	0.0%	6.9%	13.8%	72.4%	100.0%
	% dans Latin script is easier for me to use	66.7%	0.0%	33.3%	44.4%	72.4%	60.4%
	% du total	4.2%	0.0%	4.2%	8.3%	43.8%	60.4%
Shawias	Effectif	1	1	3	3	4	12
	% dans Wilaya	8.3%	8.3%	25.0%	25.0%	33.3%	100.0%
	% dans Latin script is easier for me to use	33.3%	100.0%	50.0%	33.3%	13.8%	25.0%
	% du total	2.1%	2.1%	6.3%	6.3%	8.3%	25.0%
Bouira	Effectif	0	0	1	2	4	7
	% dans Wilaya	0.0%	0.0%	14.3%	28.6%	57.1%	100.0%
	% dans Latin script is easier for me to use	0.0%	0.0%	16.7%	22.2%	13.8%	14.6%
	% du total	0.0%	0.0%	2.1%	4.2%	8.3%	14.6%
Total	Effectif	3	1	6	9	29	48
	% dans Wilaya	6.3%	2.1%	12.5%	18.8%	60.4%	100.0%
	% dans Latin script is easier for me to use	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	6.3%	2.1%	12.5%	18.8%	60.4%	100.0%

Table 84: Berbers Responses to the statement: “*Arabic fails to transmit the ideas I want to express*”

Berbers		Never	Rarely	Sometimes	Generally	Always	Total
Kabyles	Effectif	5	3	6	7	6	27
	% dans Wilaya	18.5%	11.1%	22.2%	25.9%	22.2%	100.0%
	% dans Arabic script fails to transmit the ideas ...	33.3%	50.0%	60.0%	77.8%	85.7%	57.4%
	% du total	10.6%	6.4%	12.8%	14.9%	12.8%	57.4%
Shawias	Effectif	6	2	2	1	1	12
	% dans Wilaya	50.0%	16.7%	16.7%	8.3%	8.3%	100.0%
	% dans Arabic script fails to transmit the ideas ...	40.0%	33.3%	20.0%	11.1%	14.3%	25.5%
	% du total	12.8%	4.3%	4.3%	2.1%	2.1%	25.5%
Bouira	Effectif	4	1	2	1	0	8
	% dans Wilaya	50.0%	12.5%	25.0%	12.5%	0.0%	100.0%
	% dans Arabic script fails to transmit the ideas ...	26.7%	16.7%	20.0%	11.1%	0.0%	17.0%
	% du total	8.5%	2.1%	4.3%	2.1%	0.0%	17.0%
Total	Effectif	15	6	10	9	7	47
	% dans Wilaya	31.9%	12.8%	21.3%	19.1%	14.9%	100.0%
	% dans Arabic script fails to transmit the ideas ...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	31.9%	12.8%	21.3%	19.1%	14.9%	100.0%

Appendix 17: Results of the Respondents' Script Choice According to their Addressees' Educational Level

Table 85: Results of the Respondents' Script Choice According to their Addressees' Educational Level

Education		Never	Rarely	Sometimes	Generally	Always	Total
Primary	Effectif	0	0	0	0	1	1
	% dans Educational Level	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	% dans to communicate with educated people	0.0%	0.0%	0.0%	0.0%	1.9%	0.5%
	% du total	0.0%	0.0%	0.0%	0.0%	0.5%	0.5%
Mediate	Effectif	2	0	4	2	4	12
	% dans Educational Level	16.7%	0.0%	33.3%	16.7%	33.3%	100.0%
	% dans to communicate with educated people	7.7%	0.0%	8.0%	5.1%	7.7%	6.4%
	% du total	1.1%	0.0%	2.1%	1.1%	2.1%	6.4%
Secondary	Effectif	2	2	9	4	12	29
	% dans Educational Level	6.9%	6.9%	31.0%	13.8%	41.4%	100.0%
	% dans to communicate with educated people	7.7%	9.5%	18.0%	10.3%	23.1%	15.4%
	% du total	1.1%	1.1%	4.8%	2.1%	6.4%	15.4%
University	Effectif	15	14	29	29	29	116
	% dans Educational Level	12.9%	12.1%	25.0%	25.0%	25.0%	100.0%
	% dans to communicate with educated people	57.7%	66.7%	58.0%	74.4%	55.8%	61.7%
	% du total	8.0%	7.4%	15.4%	15.4%	15.4%	61.7%
Post-graduation	Effectif	7	5	8	4	6	30
	% dans Educational Level	23.3%	16.7%	26.7%	13.3%	20.0%	100.0%
	% dans to communicate with educated people	26.9%	23.8%	16.0%	10.3%	11.5%	16.0%
	% du total	3.7%	2.7%	4.3%	2.1%	3.2%	16.0%
Total	Effectif	26	21	50	39	52	188
	% dans Educational Level	13.8%	11.2%	26.6%	20.7%	27.7%	100.0%
	% dans to communicate with educated people	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	13.8%	11.2%	26.6%	20.7%	27.7%	100.0%

Appendix 18: Results of the Respondents' Script Choice according to the Image They Want to Transmit about Themselves to Others

Table 86: Responses to the Statement: “so that others will not think I am backward” According to Gender

Gender		Never	Rarely	Sometimes	Generally	Always	Total
Male	Effectif	50	7	9	2	3	71
	% dans Gender	70.4%	9.9%	12.7%	2.8%	4.2%	100.0%
	% dans so that others will not think I am backward	35.7%	41.2%	56.3%	66.7%	37.5%	38.6%
	% du total	27.2%	3.8%	4.9%	1.1%	1.6%	38.6%
Female	Effectif	90	10	7	1	5	113
	% dans Gender	79.6%	8.8%	6.2%	0.9%	4.4%	100.0%
	% dans so that others will not think I am backward	64.3%	58.8%	43.8%	33.3%	62.5%	61.4%
	% du total	48.9%	5.4%	3.8%	0.5%	2.7%	61.4%
Total	Effectif	140	17	16	3	8	184
	% dans Gender	76.1%	9.2%	8.7%	1.6%	4.3%	100.0%
	% dans so that others will not think I am backward	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	76.1%	9.2%	8.7%	1.6%	4.3%	100.0%

Table 87: Responses to the Statement: “*using it gives the impression to others that I am an educated and cultivated person*” According to Gender

Gender		Never	Rarely	Sometimes	Generally	Always	Total
Male	Effectif	47	5	10	6	5	73
	% dans Gender	64.4%	6.8%	13.7%	8.2%	6.8%	100.0%
	% dans using it gives the impression to others that I am ...	44.3%	27.8%	31.3%	42.9%	29.4%	39.0%
	% du total	25.1%	2.7%	5.3%	3.2%	2.7%	39.0%
Female	Effectif	59	13	22	8	12	114
	% dans Gender	51.8%	11.4%	19.3%	7.0%	10.5%	100.0%
	% dans using it gives the impression to others that I am ...	55.7%	72.2%	68.8%	57.1%	70.6%	61.0%
	% du total	31.6%	7.0%	11.8%	4.3%	6.4%	61.0%
Total	Effectif	106	18	32	14	17	187
	% dans Gender	56.7%	9.6%	17.1%	7.5%	9.1%	100.0%
	% dans using it gives the impression to others that I am ...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	56.7%	9.6%	17.1%	7.5%	9.1%	100.0%

Appendix 19: Results of the Respondents' Language Choice on Facebook Writing Spaces according to their Age

Table 88: Results of the Respondents' Language Choice in Comments by Age

Age		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
less than 20 years old	Effectif	9	15	7	12	5	15	41
	% dans Age	22.0%	36.6%	17.1%	29.3%	12.2%	36.6%	
	% dans \$comment	8.8%	13.5%	28.0%	13.3%	9.6%	16.9%	
	% du total	3.7%	6.2%	2.9%	5.0%	2.1%	6.2%	16.9%
from 21 to 25 years old	Effectif	28	42	13	39	33	40	89
	% dans Age	31.5%	47.2%	14.6%	43.8%	37.1%	44.9%	
	% dans \$comment	27.5%	37.8%	52.0%	43.3%	63.5%	44.9%	
	% du total	11.6%	17.4%	5.4%	16.1%	13.6%	16.5%	36.8%
from 26 to 30 years old	Effectif	20	22	2	18	7	20	48
	% dans Age	41.7%	45.8%	4.2%	37.5%	14.6%	41.7%	
	% dans \$comment	19.6%	19.8%	8.0%	20.0%	13.5%	22.5%	
	% du total	8.3%	9.1%	0.8%	7.4%	2.9%	8.3%	19.8%
from 31 to 40 years old	Effectif	25	21	1	11	4	9	38
	% dans Age	65.8%	55.3%	2.6%	28.9%	10.5%	23.7%	
	% dans \$comment	24.5%	18.9%	4.0%	12.2%	7.7%	10.1%	
	% du total	10.3%	8.7%	0.4%	4.5%	1.7%	3.7%	15.7%
more than 40 years old	Effectif	20	11	2	10	3	5	26
	% dans Age	76.9%	42.3%	7.7%	38.5%	11.5%	19.2%	
	% dans \$comment	19.6%	9.9%	8.0%	11.1%	5.8%	5.6%	
	% du total	8.3%	4.5%	0.8%	4.1%	1.2%	2.1%	10.7%
Total	Effectif	102	111	25	90	52	89	242
	% du total	42.1%	45.9%	10.3%	37.2%	21.5%	36.8%	100.0%

Table 89: Results of the Respondents' Language Choice in Private Messaging by Age

Age		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
less than 20 years old	Effectif	7	23	12	14	11	8	40
	% dans Age	17.5%	57.5%	30.0%	35.0%	27.5%	20.0%	
	% dans \$Chat	13.5%	14.7%	30.0%	16.9%	21.2%	12.9%	
	% du total	2.9%	9.5%	5.0%	5.8%	4.5%	3.3%	16.5%
from 21 to 25 years old	Effectif	8	60	15	32	27	27	89
	% dans Age	9.0%	67.4%	16.9%	36.0%	30.3%	30.3%	
	% dans \$Chat	15.4%	38.5%	37.5%	38.6%	51.9%	43.5%	
	% du total	3.3%	24.8%	6.2%	13.2%	11.2%	11.2%	36.8%
from 26 to 30 years old	Effectif	9	33	5	14	7	16	48
	% dans Age	18.8%	68.8%	10.4%	29.2%	14.6%	33.3%	
	% dans \$Chat	17.3%	21.2%	12.5%	16.9%	13.5%	25.8%	
	% du total	3.7%	13.6%	2.1%	5.8%	2.9%	6.6%	19.8%
from 31 to 40 years old	Effectif	16	22	2	12	6	8	39
	% dans Age	41.0%	56.4%	5.1%	30.8%	15.4%	20.5%	
	% dans \$Chat	30.8%	14.1%	5.0%	14.5%	11.5%	12.9%	
	% du total	6.6%	9.1%	0.8%	5.0%	2.5%	3.3%	16.1%
more than 40 years old	Effectif	12	18	6	11	1	3	26
	% dans Age	46.2%	69.2%	23.1%	42.3%	3.8%	11.5%	
	% dans \$Chat	23.1%	11.5%	15.0%	13.3%	1.9%	4.8%	
	% du total	5.0%	7.4%	2.5%	4.5%	0.4%	1.2%	10.7%
Total	Effectif	52	156	40	83	52	62	242
	% du total	21.5%	64.5%	16.5%	34.3%	21.5%	25.6%	100.0%

Table 90: Results of the Respondents' Language Choice in Status Updates by Age

Age		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
less than 20 years old	Effectif	16	10	3	10	13	7	40
	% dans Age	40.0%	25.0%	7.5%	25.0%	32.5%	17.5%	
	% dans \$Post	12.5%	19.2%	18.8%	12.2%	19.4%	14.9%	
	% du total	6.7%	4.2%	1.3%	4.2%	5.5%	2.9%	16.8%
from 21 to 25 years old	Effectif	36	18	8	38	38	22	87
	% dans Age	41.4%	20.7%	9.2%	43.7%	43.7%	25.3%	
	% dans \$Post	28.1%	34.6%	50.0%	46.3%	56.7%	46.8%	
	% du total	15.1%	7.6%	3.4%	16.0%	16.0%	9.2%	36.6%
from 26 to 30 years old	Effectif	27	13	3	15	8	12	48
	% dans Age	56.3%	27.1%	6.3%	31.3%	16.7%	25.0%	
	% dans \$Post	21.1%	25.0%	18.8%	18.3%	11.9%	25.5%	
	% du total	11.3%	5.5%	1.3%	6.3%	3.4%	5.0%	20.2%
from 31 to 40 years old	Effectif	28	6	0	8	6	4	37
	% dans Age	75.7%	16.2%	0.0%	21.6%	16.2%	10.8%	
	% dans \$Post	21.9%	11.5%	0.0%	9.8%	9.0%	8.5%	
	% du total	11.8%	2.5%	0.0%	3.4%	2.5%	1.7%	15.5%
more than 40 years old	Effectif	21	5	2	11	2	2	26
	% dans Age	80.8%	19.2%	7.7%	42.3%	7.7%	7.7%	
	% dans \$Post	16.4%	9.6%	12.5%	13.4%	3.0%	4.3%	
	% du total	8.8%	2.1%	0.8%	4.6%	0.8%	0.8%	10.9%
Total	Effectif	128	52	16	82	67	47	238
	% du total	53.8%	21.8%	6.7%	34.5%	28.2%	19.7%	100.0%

Table 91: Results of the Respondents' Language Choice to Share Posts by Age

		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	
less than 20 years old	Effectif	12	14	3	7	11	5	36
	% dans Age	33.3%	38.9%	8.3%	19.4%	30.6%	13.9%	
	% dans \$share4	11.1%	25.9%	25.0%	9.7%	20.4%	9.8%	
	% du total	5.4%	6.3%	1.3%	3.1%	4.9%	2.2%	16.1%
from 21 to 25 years old	Effectif	26	18	6	31	31	24	82
	% dans Age	31.7%	22.0%	7.3%	37.8%	37.8%	29.3%	
	% dans \$share4	24.1%	33.3%	50.0%	43.1%	57.4%	47.1%	
	% du total	11.6%	8.0%	2.7%	13.8%	13.8%	10.7%	36.6%
from 26 to 30 years old	Effectif	23	8	2	11	6	16	44
	% dans Age	52.3%	18.2%	4.5%	25.0%	13.6%	36.4%	
	% dans \$share4	21.3%	14.8%	16.7%	15.3%	11.1%	31.4%	
	% du total	10.3%	3.6%	0.9%	4.9%	2.7%	7.1%	19.6%
from 31 to 40 years old	Effectif	27	8	0	12	5	4	37
	% dans Age	73.0%	21.6%	0.0%	32.4%	13.5%	10.8%	
	% dans \$share4	25.0%	14.8%	0.0%	16.7%	9.3%	7.8%	
	% du total	12.1%	3.6%	0.0%	5.4%	2.2%	1.8%	16.5%
more than 40 years old	Effectif	20	6	1	11	1	2	25
	% dans Age	80.0%	24.0%	4.0%	44.0%	4.0%	8.0%	
	% dans \$share4	18.5%	11.1%	8.3%	15.3%	1.9%	3.9%	
	% du total	8.9%	2.7%	0.4%	4.9%	0.4%	0.9%	11.2%
Total	Effectif	108	54	12	72	54	51	224
	% du total	48.2%	24.1%	5.4%	32.1%	24.1%	22.8%	100.0%

Table 92: Results of the Respondents' Language Choice to Post Written Pictures by Age

Age		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
less than 20 years old	Effectif	16	4	3	12	15	4	40
	% dans Age	40.0%	10.0%	7.5%	30.0%	37.5%	10.0%	
	% dans \$picture7	13.3%	8.7%	20.0%	16.2%	21.7%	8.2%	
	% du total	6.8%	1.7%	1.3%	5.1%	6.4%	1.7%	17.0%
from 21 to 25 years old	Effectif	35	15	8	29	36	21	86
	% dans Age	40.7%	17.4%	9.3%	33.7%	41.9%	24.4%	
	% dans \$picture7	29.2%	32.6%	53.3%	39.2%	52.2%	42.9%	
	% du total	14.9%	6.4%	3.4%	12.3%	15.3%	8.9%	36.6%
from 26 to 30 years old	Effectif	23	13	1	9	8	15	46
	% dans Age	50.0%	28.3%	2.2%	19.6%	17.4%	32.6%	
	% dans \$picture7	19.2%	28.3%	6.7%	12.2%	11.6%	30.6%	
	% du total	9.8%	5.5%	0.4%	3.8%	3.4%	6.4%	19.6%
from 31 to 40 years old	Effectif	27	7	0	13	7	5	38
	% dans Age	71.1%	18.4%	0.0%	34.2%	18.4%	13.2%	
	% dans \$picture7	22.5%	15.2%	0.0%	17.6%	10.1%	10.2%	
	% du total	11.5%	3.0%	0.0%	5.5%	3.0%	2.1%	16.2%
more than 40 years old	Effectif	19	7	3	11	3	4	25
	% dans Age	76.0%	28.0%	12.0%	44.0%	12.0%	16.0%	
	% dans \$picture7	15.8%	15.2%	20.0%	14.9%	4.3%	8.2%	
	% du total	8.1%	3.0%	1.3%	4.7%	1.3%	1.7%	10.6%
Total	Effectif	120	46	15	74	69	49	235
	% du total	51.1%	19.6%	6.4%	31.5%	29.4%	20.9%	100.0%

Table 93: Results of the Respondents' Language Choice to Post and Comment on Religious Topics by Age

Age		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
less than 20 years old	Effectif	32	4	0	1	2	1	34
	% dans Age	94.1%	11.8%	0.0%	2.9%	5.9%	2.9%	
	% dans \$topics8	16.2%	10.5%	0.0%	5.6%	15.4%	6.3%	
	% du total	14.0%	1.7%	0.0%	0.4%	0.9%	0.4%	14.8%
from 21 to 25 years old	Effectif	67	12	1	12	8	7	84
	% dans Age	79.8%	14.3%	1.2%	14.3%	9.5%	8.3%	
	% dans \$topics8	34.0%	31.6%	25.0%	66.7%	61.5%	43.8%	
	% du total	29.3%	5.2%	0.4%	5.2%	3.5%	3.1%	36.7%
from 26 to 30 years old	Effectif	39	8	0	2	2	5	48
	% dans Age	81.3%	16.7%	0.0%	4.2%	4.2%	10.4%	
	% dans \$topics8	19.8%	21.1%	0.0%	11.1%	15.4%	31.3%	
	% du total	17.0%	3.5%	0.0%	0.9%	0.9%	2.2%	21.0%
from 31 to 40 years old	Effectif	34	6	0	2	1	2	37
	% dans Age	91.9%	16.2%	0.0%	5.4%	2.7%	5.4%	
	% dans \$topics8	17.3%	15.8%	0.0%	11.1%	7.7%	12.5%	
	% du total	14.8%	2.6%	0.0%	0.9%	0.4%	0.9%	16.2%
more than 40 years old	Effectif	25	8	3	1	0	1	26
	% dans Age	96.2%	30.8%	11.5%	3.8%	0.0%	3.8%	
	% dans \$topics8	12.7%	21.1%	75.0%	5.6%	0.0%	6.3%	
	% du total	10.9%	3.5%	1.3%	0.4%	0.0%	0.4%	11.4%
Total	Effectif	197	38	4	18	13	16	229
	% du total	86.0%	16.6%	1.7%	7.9%	5.7%	7.0%	100.0%

Appendix 20: Results of the Respondents' Language Choice on Facebook Writing Spaces according to their Gender

Table 94: Results of the Respondents' Language Choice in Comments by Gender

Gender		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
Male	Effectif	55	48	7	34	14	27	100
	% dans Gender	55.0%	48.0%	7.0%	34.0%	14.0%	27.0%	
	% dans \$comment	53.9%	43.2%	28.0%	37.8%	26.9%	30.3%	
	% du total	22.7%	19.8%	2.9%	14.0%	5.8%	11.2%	41.3%
Female	Effectif	47	63	18	56	38	62	142
	% dans Gender	33.1%	44.4%	12.7%	39.4%	26.8%	43.7%	
	% dans \$comment	46.1%	56.8%	72.0%	62.2%	73.1%	69.7%	
	% du total	19.4%	26.0%	7.4%	23.1%	15.7%	25.6%	58.7%
Total	Effectif	102	111	25	90	52	89	242
	% du total	42.1%	45.9%	10.3%	37.2%	21.5%	36.8%	100.0%

Table 95: Results of the Respondents' Language Choice in Private Messaging by Gender

Gender		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
Male	Effectif	30	58	13	27	16	28	100
	% dans Gender	30.0%	58.0%	13.0%	27.0%	16.0%	28.0%	
	% dans \$Chat	57.7%	37.2%	32.5%	32.5%	30.8%	45.2%	
	% du total	12.4%	24.0%	5.4%	11.2%	6.6%	11.6%	41.3%
Female	Effectif	22	98	27	56	36	34	142
	% dans Gender	15.5%	69.0%	19.0%	39.4%	25.4%	23.9%	
	% dans \$Chat	42.3%	62.8%	67.5%	67.5%	69.2%	54.8%	
	% du total	9.1%	40.5%	11.2%	23.1%	14.9%	14.0%	58.7%
Total	Effectif	52	156	40	83	52	62	242
	% du total	21.5%	64.5%	16.5%	34.3%	21.5%	25.6%	100.0%

Table 96: Results of the Respondents' Language Choice in Status Updates by Gender

Gender		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
Male	Effectif	56	24	3	27	15	19	97
	% dans Gender	57.7%	24.7%	3.1%	27.8%	15.5%	19.6%	
	% dans \$Post	43.8%	46.2%	18.8%	32.9%	22.4%	40.4%	
	% du total	23.5%	10.1%	1.3%	11.3%	6.3%	8.0%	40.8%
Female	Effectif	72	28	13	55	52	28	141
	% dans Gender	51.1%	19.9%	9.2%	39.0%	36.9%	19.9%	
	% dans \$Post	56.3%	53.8%	81.3%	67.1%	77.6%	59.6%	
	% du total	30.3%	11.8%	5.5%	23.1%	21.8%	11.8%	59.2%
Total	Effectif	128	52	16	82	67	47	238
	% du total	53.8%	21.8%	6.7%	34.5%	28.2%	19.7%	100.0%

Table 97: Results of the Respondents' Language Choice to Share Posts by Gender

		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	
Male	Effectif	53	21	3	25	13	21	91
	% dans Gender	58.2%	23.1%	3.3%	27.5%	14.3%	23.1%	
	% dans \$share4	49.1%	38.9%	25.0%	34.7%	24.1%	41.2%	
	% du total	23.7%	9.4%	1.3%	11.2%	5.8%	9.4%	40.6%
Female	Effectif	55	33	9	47	41	30	133
	% dans Gender	41.4%	24.8%	6.8%	35.3%	30.8%	22.6%	
	% dans \$share4	50.9%	61.1%	75.0%	65.3%	75.9%	58.8%	
	% du total	24.6%	14.7%	4.0%	21.0%	18.3%	13.4%	59.4%
Total	Effectif	108	54	12	72	54	51	224
	% du total	48.2%	24.1%	5.4%	32.1%	24.1%	22.8%	100.0%

Table 98: Results of the Respondents' Language Choice to Post Written Pictures by Gender

Gender		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
Male	Effectif	51	24	5	24	16	23	96
	% dans Gender	53.1%	25.0%	5.2%	25.0%	16.7%	24.0%	
	% dans \$picture7	42.5%	52.2%	33.3%	32.4%	23.2%	46.9%	
	% du total	21.7%	10.2%	2.1%	10.2%	6.8%	9.8%	40.9%
Female	Effectif	69	22	10	50	53	26	139
	% dans Gender	49.6%	15.8%	7.2%	36.0%	38.1%	18.7%	
	% dans \$picture7	57.5%	47.8%	66.7%	67.6%	76.8%	53.1%	
	% du total	29.4%	9.4%	4.3%	21.3%	22.6%	11.1%	59.1%
Total	Effectif	120	46	15	74	69	49	235
	% du total	51.1%	19.6%	6.4%	31.5%	29.4%	20.9%	100.0%

Table 99: Results of the Respondents' Language Choice to Post and Comment on Religious Topics by Gender

Gender		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
Male	Effectif	81	21	1	6	3	9	96
	% dans Gender	84.4%	21.9%	1.0%	6.3%	3.1%	9.4%	
	% dans \$topics8	41.1%	55.3%	25.0%	33.3%	23.1%	56.3%	
	% du total	35.4%	9.2%	0.4%	2.6%	1.3%	3.9%	41.9%
Female	Effectif	116	17	3	12	10	7	133
	% dans Gender	87.2%	12.8%	2.3%	9.0%	7.5%	5.3%	
	% dans \$topics8	58.9%	44.7%	75.0%	66.7%	76.9%	43.8%	
	% du total	50.7%	7.4%	1.3%	5.2%	4.4%	3.1%	58.1%
Total	Effectif	197	38	4	18	13	16	229
	% du total	86.0%	16.6%	1.7%	7.9%	5.7%	7.0%	100.0%

Appendix 21: Results of the Respondents' Language Choice on Facebook Writing Spaces according to their Regional Belonging

Table 100: Results of the Respondents' Language Choice in Comments by Region

		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	
East	Effectif	30	28	6	16	10	22	55
	% dans Residence	54.5%	50.9%	10.9%	29.1%	18.2%	40.0%	
	% dans \$comment	29.4%	25.2%	24.0%	17.8%	19.2%	24.7%	
	% du total	12.4%	11.6%	2.5%	6.6%	4.1%	9.1%	22.7%
Centre	Effectif	36	54	19	59	38	48	122
	% dans Residence	29.5%	44.3%	15.6%	48.4%	31.1%	39.3%	
	% dans \$comment	35.3%	48.6%	76.0%	65.6%	73.1%	53.9%	
	% du total	14.9%	22.3%	7.9%	24.4%	15.7%	19.8%	50.4%
West	Effectif	14	15	0	9	2	14	33
	% dans Residence	42.4%	45.5%	0.0%	27.3%	6.1%	42.4%	
	% dans \$comment	13.7%	13.5%	0.0%	10.0%	3.8%	15.7%	
	% du total	5.8%	6.2%	0.0%	3.7%	0.8%	5.8%	13.6%
South	Effectif	22	14	0	6	2	5	32
	% dans Residence	68.8%	43.8%	0.0%	18.8%	6.3%	15.6%	
	% dans \$comment	21.6%	12.6%	0.0%	6.7%	3.8%	5.6%	
	% du total	9.1%	5.8%	0.0%	2.5%	0.8%	2.1%	13.2%
Total	Effectif	102	111	25	90	52	89	242
	% du total	42.1%	45.9%	10.3%	37.2%	21.5%	36.8%	100.0%

Table 101: Results of the Respondents' Language Choice in Private Messaging by Region

		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	
East	Effectif	15	40	12	10	12	12	55
	% dans Residence	27.3%	72.7%	21.8%	18.2%	21.8%	21.8%	
	% dans \$Chat	28.8%	25.6%	30.0%	12.0%	23.1%	19.4%	
	% du total	6.2%	16.5%	5.0%	4.1%	5.0%	5.0%	22.7%
Centre	Effectif	16	72	28	61	36	31	121
	% dans Residence	13.2%	59.5%	23.1%	50.4%	29.8%	25.6%	
	% dans \$Chat	30.8%	46.2%	70.0%	73.5%	69.2%	50.0%	
	% du total	6.6%	29.8%	11.6%	25.2%	14.9%	12.8%	50.0%
West	Effectif	11	19	0	7	3	13	34
	% dans Residence	32.4%	55.9%	0.0%	20.6%	8.8%	38.2%	
	% dans \$Chat	21.2%	12.2%	0.0%	8.4%	5.8%	21.0%	
	% du total	4.5%	7.9%	0.0%	2.9%	1.2%	5.4%	14.0%
South	Effectif	10	25	0	5	1	6	32
	% dans Residence	31.3%	78.1%	0.0%	15.6%	3.1%	18.8%	
	% dans \$Chat	19.2%	16.0%	0.0%	6.0%	1.9%	9.7%	
	% du total	4.1%	10.3%	0.0%	2.1%	0.4%	2.5%	13.2%
Total	Effectif	52	156	40	83	52	62	242
	% du total	21.5%	64.5%	16.5%	34.3%	21.5%	25.6%	100.0%

Table 102: Results of the Respondents' Language Choice in Status Updates by Region

		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	
East	Effectif	39	12	1	16	13	6	53
	% dans Residence	73.6%	22.6%	1.9%	30.2%	24.5%	11.3%	
	% dans \$Post	30.5%	23.1%	6.3%	19.5%	19.4%	12.8%	
	% du total	16.4%	5.0%	0.4%	6.7%	5.5%	2.5%	22.3%
Centre	Effectif	48	28	14	55	45	27	120
	% dans Residence	40.0%	23.3%	11.7%	45.8%	37.5%	22.5%	
	% dans \$Post	37.5%	53.8%	87.5%	67.1%	67.2%	57.4%	
	% du total	20.2%	11.8%	5.9%	23.1%	18.9%	11.3%	50.4%
West	Effectif	16	7	1	7	4	10	33
	% dans Residence	48.5%	21.2%	3.0%	21.2%	12.1%	30.3%	
	% dans \$Post	12.5%	13.5%	6.3%	8.5%	6.0%	21.3%	
	% du total	6.7%	2.9%	0.4%	2.9%	1.7%	4.2%	13.9%
South	Effectif	25	5	0	4	5	4	32
	% dans Residence	78.1%	15.6%	0.0%	12.5%	15.6%	12.5%	
	% dans \$Post	19.5%	9.6%	0.0%	4.9%	7.5%	8.5%	
	% du total	10.5%	2.1%	0.0%	1.7%	2.1%	1.7%	13.4%
Total	Effectif	128	52	16	82	67	47	238
	% du total	53.8%	21.8%	6.7%	34.5%	28.2%	19.7%	100.0%

Table 103: Results of the Respondents' Language Choice to Share Posts by Region

		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	
East	Effectif	35	17	1	15	13	6	53
	% dans Residence	66.0%	32.1%	1.9%	28.3%	24.5%	11.3%	
	% dans \$share4	32.4%	31.5%	8.3%	20.8%	24.1%	11.8%	
	% du total	15.6%	7.6%	0.4%	6.7%	5.8%	2.7%	23.7%
Centre	Effectif	35	27	11	47	34	27	109
	% dans Residence	32.1%	24.8%	10.1%	43.1%	31.2%	24.8%	
	% dans \$share4	32.4%	50.0%	91.7%	65.3%	63.0%	52.9%	
	% du total	15.6%	12.1%	4.9%	21.0%	15.2%	12.1%	48.7%
West	Effectif	15	8	0	7	3	14	32
	% dans Residence	46.9%	25.0%	0.0%	21.9%	9.4%	43.8%	
	% dans \$share4	13.9%	14.8%	0.0%	9.7%	5.6%	27.5%	
	% du total	6.7%	3.6%	0.0%	3.1%	1.3%	6.3%	14.3%
South	Effectif	23	2	0	3	4	4	30
	% dans Residence	76.7%	6.7%	0.0%	10.0%	13.3%	13.3%	
	% dans \$share4	21.3%	3.7%	0.0%	4.2%	7.4%	7.8%	
	% du total	10.3%	0.9%	0.0%	1.3%	1.8%	1.8%	13.4%
Total	Effectif	108	54	12	72	54	51	224
	% du total	48.2%	24.1%	5.4%	32.1%	24.1%	22.8%	100.0%

Table 104: Results of the Respondents' Language Choice to Post Written Pictures by Region

		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	
East	Effectif	33	11	5	14	13	8	54
	% dans Residence	61.1%	20.4%	9.3%	25.9%	24.1%	14.8%	
	% dans \$picture7	27.5%	23.9%	33.3%	18.9%	18.8%	16.3%	
	% du total	14.0%	4.7%	2.1%	6.0%	5.5%	3.4%	23.0%
Centre	Effectif	51	18	10	51	50	25	119
	% dans Residence	42.9%	15.1%	8.4%	42.9%	42.0%	21.0%	
	% dans \$picture7	42.5%	39.1%	66.7%	68.9%	72.5%	51.0%	
	% du total	21.7%	7.7%	4.3%	21.7%	21.3%	10.6%	50.6%
West	Effectif	13	10	0	5	3	13	31
	% dans Residence	41.9%	32.3%	0.0%	16.1%	9.7%	41.9%	
	% dans \$picture7	10.8%	21.7%	0.0%	6.8%	4.3%	26.5%	
	% du total	5.5%	4.3%	0.0%	2.1%	1.3%	5.5%	13.2%
South	Effectif	23	7	0	4	3	3	31
	% dans Residence	74.2%	22.6%	0.0%	12.9%	9.7%	9.7%	
	% dans \$picture7	19.2%	15.2%	0.0%	5.4%	4.3%	6.1%	
	% du total	9.8%	3.0%	0.0%	1.7%	1.3%	1.3%	13.2%
Total	Effectif	120	46	15	74	69	49	235
	% du total	51.1%	19.6%	6.4%	31.5%	29.4%	20.9%	100.0%

Table 105: Results of the Respondents' Language Choice to Post and Comment on Religious Topics by Region

		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	
East	Effectif	50	11	2	4	2	1	54
	% dans Residence	92.6%	20.4%	3.7%	7.4%	3.7%	1.9%	
	% dans \$topics8	25.4%	28.9%	50.0%	22.2%	15.4%	6.3%	
	% du total	21.8%	4.8%	0.9%	1.7%	0.9%	0.4%	23.6%
Centre	Effectif	92	18	2	10	11	8	112
	% dans Residence	82.1%	16.1%	1.8%	8.9%	9.8%	7.1%	
	% dans \$topics8	46.7%	47.4%	50.0%	55.6%	84.6%	50.0%	
	% du total	40.2%	7.9%	0.9%	4.4%	4.8%	3.5%	48.9%
West	Effectif	26	6	0	3	0	6	32
	% dans Residence	81.3%	18.8%	0.0%	9.4%	0.0%	18.8%	
	% dans \$topics8	13.2%	15.8%	0.0%	16.7%	0.0%	37.5%	
	% du total	11.4%	2.6%	0.0%	1.3%	0.0%	2.6%	14.0%
South	Effectif	29	3	0	1	0	1	31
	% dans Residence	93.5%	9.7%	0.0%	3.2%	0.0%	3.2%	
	% dans \$topics8	14.7%	7.9%	0.0%	5.6%	0.0%	6.3%	
	% du total	12.7%	1.3%	0.0%	0.4%	0.0%	0.4%	13.5%
Total	Effectif	197	38	4	18	13	16	229
	% du total	86.0%	16.6%	1.7%	7.9%	5.7%	7.0%	100.0%

Appendix 22: Results of the Respondents' Language Choice on Facebook Writing Spaces according to their Educational Level

Table 106: Results of the Respondents' Language Choice in Comments by Education

Education		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
Primary	Effectif	1	1	0	0	0	0	1
	% dans Level	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	
	% dans \$comment	1.0%	0.9%	0.0%	0.0%	0.0%	0.0%	
	% du total	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.4%
Mediate	Effectif	8	8	2	4	1	3	15
	% dans Level	53.3%	53.3%	13.3%	26.7%	6.7%	20.0%	
	% dans \$comment	7.8%	7.2%	8.0%	4.4%	1.9%	3.4%	
	% du total	3.3%	3.3%	0.8%	1.7%	0.4%	1.2%	6.2%
Secondary	Effectif	16	13	3	11	2	14	37
	% dans Level	43.2%	35.1%	8.1%	29.7%	5.4%	37.8%	
	% dans \$comment	15.7%	11.7%	12.0%	12.2%	3.8%	15.7%	
	% du total	6.6%	5.4%	1.2%	4.5%	0.8%	5.8%	15.3%
University	Effectif	57	73	18	57	40	60	150
	% dans Level	38.0%	48.7%	12.0%	38.0%	26.7%	40.0%	
	% dans \$comment	55.9%	65.8%	72.0%	63.3%	76.9%	67.4%	
	% du total	23.6%	30.2%	7.4%	23.6%	16.5%	24.8%	62.0%
Post-graduation	Effectif	20	16	2	18	9	12	39
	% dans Level	51.3%	41.0%	5.1%	46.2%	23.1%	30.8%	
	% dans \$comment	19.6%	14.4%	8.0%	20.0%	17.3%	13.5%	
	% du total	8.3%	6.6%	0.8%	7.4%	3.7%	5.0%	16.1%
Total	Effectif	102	111	25	90	52	89	242
	% du total	42.1%	45.9%	10.3%	37.2%	21.5%	36.8%	100.0%

Table 107: Results of the Respondents' Language Choice in Private Messaging by Education

		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	
Primary	Effectif	1	1	0	0	0	0	1
	% dans Level	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	
	% dans \$Chat	1.9%	0.6%	0.0%	0.0%	0.0%	0.0%	
	% du total	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.4%
Mediate	Effectif	5	11	2	4	1	0	14
	% dans Level	35.7%	78.6%	14.3%	28.6%	7.1%	0.0%	
	% dans \$Chat	9.6%	7.1%	5.0%	4.8%	1.9%	0.0%	
	% du total	2.1%	4.5%	0.8%	1.7%	0.4%	0.0%	5.8%
Secondary	Effectif	12	17	6	12	4	9	37
	% dans Level	32.4%	45.9%	16.2%	32.4%	10.8%	24.3%	
	% dans \$Chat	23.1%	10.9%	15.0%	14.5%	7.7%	14.5%	
	% du total	5.0%	7.0%	2.5%	5.0%	1.7%	3.7%	15.3%
University	Effectif	26	102	26	50	40	40	151
	% dans Level	17.2%	67.5%	17.2%	33.1%	26.5%	26.5%	
	% dans \$Chat	50.0%	65.4%	65.0%	60.2%	76.9%	64.5%	
	% du total	10.7%	42.1%	10.7%	20.7%	16.5%	16.5%	62.4%
Post- graduation	Effectif	8	25	6	17	7	13	39
	% dans Level	20.5%	64.1%	15.4%	43.6%	17.9%	33.3%	
	% dans \$Chat	15.4%	16.0%	15.0%	20.5%	13.5%	21.0%	
	% du total	3.3%	10.3%	2.5%	7.0%	2.9%	5.4%	16.1%
Total	Effectif	52	156	40	83	52	62	242
	% du total	21.5%	64.5%	16.5%	34.3%	21.5%	25.6%	100.0%

Table 108: Results of the Respondents' Language Choice in Status Updates by Education

		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	
Primary	Effectif	1	1	0	0	0	0	1
	% dans Level	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	
	% dans \$Post	0.8%	1.9%	0.0%	0.0%	0.0%	0.0%	
	% du total	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.4%
Mediate	Effectif	7	8	2	3	0	1	15
	% dans Level	46.7%	53.3%	13.3%	20.0%	0.0%	6.7%	
	% dans \$Post	5.5%	15.4%	12.5%	3.7%	0.0%	2.1%	
	% du total	2.9%	3.4%	0.8%	1.3%	0.0%	0.4%	6.3%
Secondary	Effectif	18	7	2	15	4	10	36
	% dans Level	50.0%	19.4%	5.6%	41.7%	11.1%	27.8%	
	% dans \$Post	14.1%	13.5%	12.5%	18.3%	6.0%	21.3%	
	% du total	7.6%	2.9%	0.8%	6.3%	1.7%	4.2%	15.1%
University	Effectif	77	31	9	48	53	31	147
	% dans Level	52.4%	21.1%	6.1%	32.7%	36.1%	21.1%	
	% dans \$Post	60.2%	59.6%	56.3%	58.5%	79.1%	66.0%	
	% du total	32.4%	13.0%	3.8%	20.2%	22.3%	13.0%	61.8%
Post- graduation	Effectif	25	5	3	16	10	5	39
	% dans Level	64.1%	12.8%	7.7%	41.0%	25.6%	12.8%	
	% dans \$Post	19.5%	9.6%	18.8%	19.5%	14.9%	10.6%	
	% du total	10.5%	2.1%	1.3%	6.7%	4.2%	2.1%	16.4%
Total	Effectif	128	52	16	82	67	47	238
	% du total	53.8%	21.8%	6.7%	34.5%	28.2%	19.7%	100.0%

Table 109: Results of the Respondents' Language Choice in Sharing Posts by Education

Education		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
Primary	Effectif	1	1	0	0	0	0	1
	% dans Level	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	
	% dans \$share4	0.9%	1.9%	0.0%	0.0%	0.0%	0.0%	
	% du total	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.4%
Mediate	Effectif	8	5	1	2	0	3	14
	% dans Level	57.1%	35.7%	7.1%	14.3%	0.0%	21.4%	
	% dans \$share4	7.4%	9.3%	8.3%	2.8%	0.0%	5.9%	
	% du total	3.6%	2.2%	0.4%	0.9%	0.0%	1.3%	6.3%
Secondary	Effectif	13	6	3	13	3	7	32
	% dans Level	40.6%	18.8%	9.4%	40.6%	9.4%	21.9%	
	% dans \$share4	12.0%	11.1%	25.0%	18.1%	5.6%	13.7%	
	% du total	5.8%	2.7%	1.3%	5.8%	1.3%	3.1%	14.3%
University	Effectif	62	36	6	42	41	35	139
	% dans Level	44.6%	25.9%	4.3%	30.2%	29.5%	25.2%	
	% dans \$share4	57.4%	66.7%	50.0%	58.3%	75.9%	68.6%	
	% du total	27.7%	16.1%	2.7%	18.8%	18.3%	15.6%	62.1%
Post-graduation	Effectif	24	6	2	15	10	6	38
	% dans Level	63.2%	15.8%	5.3%	39.5%	26.3%	15.8%	
	% dans \$share4	22.2%	11.1%	16.7%	20.8%	18.5%	11.8%	
	% du total	10.7%	2.7%	0.9%	6.7%	4.5%	2.7%	17.0%
Total	Effectif	108	54	12	72	54	51	224
	% du total	48.2%	24.1%	5.4%	32.1%	24.1%	22.8%	100.0%

Table 110: Results of the Respondents' Language Choice in Posting Written Pictures by Education

Education		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
Primary	Effectif	1	1	0	0	0	0	1
	% dans Level	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	
	% dans \$picture7	0.8%	2.2%	0.0%	0.0%	0.0%	0.0%	
	% du total	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.4%
Mediate	Effectif	6	2	1	5	0	3	15
	% dans Level	40.0%	13.3%	6.7%	33.3%	0.0%	20.0%	
	% dans \$picture7	5.0%	4.3%	6.7%	6.8%	0.0%	6.1%	
	% du total	2.6%	0.9%	0.4%	2.1%	0.0%	1.3%	6.4%
Secondary	Effectif	18	8	3	12	6	9	36
	% dans Level	50.0%	22.2%	8.3%	33.3%	16.7%	25.0%	
	% dans \$picture7	15.0%	17.4%	20.0%	16.2%	8.7%	18.4%	
	% du total	7.7%	3.4%	1.3%	5.1%	2.6%	3.8%	15.3%
University	Effectif	71	26	8	44	53	26	144
	% dans Level	49.3%	18.1%	5.6%	30.6%	36.8%	18.1%	
	% dans \$picture7	59.2%	56.5%	53.3%	59.5%	76.8%	53.1%	
	% du total	30.2%	11.1%	3.4%	18.7%	22.6%	11.1%	61.3%
Post-graduation	Effectif	24	9	3	13	10	11	39
	% dans Level	61.5%	23.1%	7.7%	33.3%	25.6%	28.2%	
	% dans \$picture7	20.0%	19.6%	20.0%	17.6%	14.5%	22.4%	
	% du total	10.2%	3.8%	1.3%	5.5%	4.3%	4.7%	16.6%
Total	Effectif	120	46	15	74	69	49	235
	% du total	51.1%	19.6%	6.4%	31.5%	29.4%	20.9%	100.0%

Table 111: Results of the Respondents' Language Choice to Post and Comment on Religious Topics by Education

Education		Standard Arabic	Colloquial Arabic	Berber	French	English	Language Mixing	Total
Primary	Effectif	1	1	0	0	0	0	1
	% dans Level	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	
	% dans \$topics8	0.5%	2.6%	0.0%	0.0%	0.0%	0.0%	
	% du total	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.4%
Mediate	Effectif	14	4	1	0	0	0	15
	% dans Level	93.3%	26.7%	6.7%	0.0%	0.0%	0.0%	
	% dans \$topics8	7.1%	10.5%	25.0%	0.0%	0.0%	0.0%	
	% du total	6.1%	1.7%	0.4%	0.0%	0.0%	0.0%	6.6%
Secondary	Effectif	30	4	1	2	0	2	33
	% dans Level	90.9%	12.1%	3.0%	6.1%	0.0%	6.1%	
	% dans \$topics8	15.2%	10.5%	25.0%	11.1%	0.0%	12.5%	
	% du total	13.1%	1.7%	0.4%	0.9%	0.0%	0.9%	14.4%
University	Effectif	119	23	2	13	10	10	142
	% dans Level	83.8%	16.2%	1.4%	9.2%	7.0%	7.0%	
	% dans \$topics8	60.4%	60.5%	50.0%	72.2%	76.9%	62.5%	
	% du total	52.0%	10.0%	0.9%	5.7%	4.4%	4.4%	62.0%
Post-graduation	Effectif	33	6	0	3	3	4	38
	% dans Level	86.8%	15.8%	0.0%	7.9%	7.9%	10.5%	
	% dans \$topics8	16.8%	15.8%	0.0%	16.7%	23.1%	25.0%	
	% du total	14.4%	2.6%	0.0%	1.3%	1.3%	1.7%	16.6%
Total	Effectif	197	38	4	18	13	16	229
	% du total	86.0%	16.6%	1.7%	7.9%	5.7%	7.0%	100.0%

Appendix 23: Results of the Berbers' Language Choice in Facebook Writing Spaces

Table 112: Results of the Berbers' Language Choice in Private Messaging

		Standard_Arabic1	Colloquial_Arabic1	Berber1	French1	English1	Language_Mixing1	Total
Kabyles	Effectif	2	18	23	22	7	2	29
	% dans Wilaya	6.9%	62.1%	79.3%	75.9%	24.1%	6.9%	
	% dans \$chat	40.0%	56.3%	63.9%	71.0%	63.6%	33.3%	
	% du total	4.0%	36.0%	46.0%	44.0%	14.0%	4.0%	58.0%
Shawias	Effectif	2	11	9	3	4	2	12
	% dans Wilaya	16.7%	91.7%	75.0%	25.0%	33.3%	16.7%	
	% dans \$chat	40.0%	34.4%	25.0%	9.7%	36.4%	33.3%	
	% du total	4.0%	22.0%	18.0%	6.0%	8.0%	4.0%	24.0%
Bouira	Effectif	1	3	4	6	0	2	9
	% dans Wilaya	11.1%	33.3%	44.4%	66.7%	0.0%	22.2%	
	% dans \$chat	20.0%	9.4%	11.1%	19.4%	0.0%	33.3%	
	% du total	2.0%	6.0%	8.0%	12.0%	0.0%	4.0%	18.0%
	Effectif	5	32	36	31	11	6	50
	% du total	10.0%	64.0%	72.0%	62.0%	22.0%	12.0%	100.0%

Table 113: Results of the Berbers' Language Choice in Comments

		Standard_Arabic1	Colloquial_Arabic1	Berber1	French1	English1	Language_Mixing1	Total
Kabyles	Effectif	3	12	16	16	6	8	29
	% dans Wilaya	10.3%	41.4%	55.2%	55.2%	20.7%	27.6%	
	% dans \$comment	25.0%	60.0%	69.6%	64.0%	60.0%	44.4%	
	% du total	6.0%	24.0%	32.0%	32.0%	12.0%	16.0%	58.0%
Shawias	Effectif	5	6	5	5	2	5	12
	% dans Wilaya	41.7%	50.0%	41.7%	41.7%	16.7%	41.7%	
	% dans \$comment	41.7%	30.0%	21.7%	20.0%	20.0%	27.8%	
	% du total	10.0%	12.0%	10.0%	10.0%	4.0%	10.0%	24.0%
Bouira	Effectif	4	2	2	4	2	5	9
	% dans Wilaya	44.4%	22.2%	22.2%	44.4%	22.2%	55.6%	
	% dans \$comment	33.3%	10.0%	8.7%	16.0%	20.0%	27.8%	
	% du total	8.0%	4.0%	4.0%	8.0%	4.0%	10.0%	18.0%
	Effectif	12	20	23	25	10	18	50
	% du total	24.0%	40.0%	46.0%	50.0%	20.0%	36.0%	100.0%

Table 114: Results of the Berbers' Language Choice in Status Updates

		Standard_Arabic1	Colloquial_Arabic1	Berber1	French1	English1	Language_Mixing1	Total
Kabyles	Effectif	5	2	11	17	7	5	27
	% dans Wilaya	18.5%	7.4%	40.7%	63.0%	25.9%	18.5%	
	% dans \$Post	31.3%	33.3%	73.3%	65.4%	53.8%	55.6%	
	% du total	10.4%	4.2%	22.9%	35.4%	14.6%	10.4%	56.3%
Shawias	Effectif	7	2	1	2	4	2	12
	% dans Wilaya	58.3%	16.7%	8.3%	16.7%	33.3%	16.7%	
	% dans \$Post	43.8%	33.3%	6.7%	7.7%	30.8%	22.2%	
	% du total	14.6%	4.2%	2.1%	4.2%	8.3%	4.2%	25.0%
Bouira	Effectif	4	2	3	7	2	2	9
	% dans Wilaya	44.4%	22.2%	33.3%	77.8%	22.2%	22.2%	
	% dans \$Post	25.0%	33.3%	20.0%	26.9%	15.4%	22.2%	
	% du total	8.3%	4.2%	6.3%	14.6%	4.2%	4.2%	18.8%
	Effectif	16	6	15	26	13	9	48
	% du total	33.3%	12.5%	31.3%	54.2%	27.1%	18.8%	100.0%

Table 115: Results of the Berbers' Language Choice to Share Posts

		Standard_Arabic1	Colloquial_Arabic1	Berber1	French1	English1	Language_Mixing1	Total
Kabyles	Effectif	4	8	10	16	6	4	27
	% dans Wilaya	14.8%	29.6%	37.0%	59.3%	22.2%	14.8%	
	% dans \$Share	40.0%	53.3%	83.3%	64.0%	60.0%	40.0%	
	% du total	8.3%	16.7%	20.8%	33.3%	12.5%	8.3%	56.3%
Shawias	Effectif	3	6	1	3	4	2	12
	% dans Wilaya	25.0%	50.0%	8.3%	25.0%	33.3%	16.7%	
	% dans \$Share	30.0%	40.0%	8.3%	12.0%	40.0%	20.0%	
	% du total	6.3%	12.5%	2.1%	6.3%	8.3%	4.2%	25.0%
Bouira	Effectif	3	1	1	6	0	4	9
	% dans Wilaya	33.3%	11.1%	11.1%	66.7%	0.0%	44.4%	
	% dans \$Share	30.0%	6.7%	8.3%	24.0%	0.0%	40.0%	
	% du total	6.3%	2.1%	2.1%	12.5%	0.0%	8.3%	18.8%
	Effectif	10	15	12	25	10	10	48
	% du total	20.8%	31.3%	25.0%	52.1%	20.8%	20.8%	100.0%

Table 116: Results of the Berbers' Language Choice to Post Written Picture

		Standard_Arabic1	Colloquial_Arabic1	Berber1	French1	English1	Language_Mixing1	Total
Kabyles	Effectif	7	4	11	16	10	3	28
	% dans Wilaya	25.0%	14.3%	39.3%	57.1%	35.7%	10.7%	
	% dans \$picture	53.8%	44.4%	73.3%	69.6%	66.7%	27.3%	
	% du total	14.3%	8.2%	22.4%	32.7%	20.4%	6.1%	57.1%
Shawias	Effectif	4	4	4	4	3	1	12
	% dans Wilaya	33.3%	33.3%	33.3%	33.3%	25.0%	8.3%	
	% dans \$picture	30.8%	44.4%	26.7%	17.4%	20.0%	9.1%	
	% du total	8.2%	8.2%	8.2%	8.2%	6.1%	2.0%	24.5%
Bouira	Effectif	2	1	0	3	2	7	9
	% dans Wilaya	22.2%	11.1%	0.0%	33.3%	22.2%	77.8%	
	% dans \$picture	15.4%	11.1%	0.0%	13.0%	13.3%	63.6%	
	% du total	4.1%	2.0%	0.0%	6.1%	4.1%	14.3%	18.4%
Effectif		13	9	15	23	15	11	49
% du total		26.5%	18.4%	30.6%	46.9%	30.6%	22.4%	100.0%

Table 117: Results of the Berbers' Language Choice to Post and Comment on Religious Topics

		Standard_Arabic1	Colloquial_Arabic1	Berber1	French1	English1	Language_Mixing1	Total
Kabyles	Effectif	16	4	2	10	1	3	26
	% dans Wilaya	61.5%	15.4%	7.7%	38.5%	3.8%	11.5%	
	% dans \$religious	50.0%	40.0%	50.0%	83.3%	50.0%	50.0%	
	% du total	34.8%	8.7%	4.3%	21.7%	2.2%	6.5%	56.5%
Shawias	Effectif	9	4	1	2	1	0	11
	% dans Wilaya	81.8%	36.4%	9.1%	18.2%	9.1%	0.0%	
	% dans \$religious	28.1%	40.0%	25.0%	16.7%	50.0%	0.0%	
	% du total	19.6%	8.7%	2.2%	4.3%	2.2%	0.0%	23.9%
Bouira	Effectif	7	2	1	0	0	3	9
	% dans Wilaya	77.8%	22.2%	11.1%	0.0%	0.0%	33.3%	
	% dans \$religious	21.9%	20.0%	25.0%	0.0%	0.0%	50.0%	
	% du total	15.2%	4.3%	2.2%	0.0%	0.0%	6.5%	19.6%
Effectif		32	10	4	12	2	6	46
% du total		69.6%	21.7%	8.7%	26.1%	4.3%	13.0%	100.0%

Appendix 24: Results of the Berbers' Language Choice According to the Interlocutors

Table 118: Results of the Berbers' Language Choice to Communicate with People Who Use Standard Arabic

		Standard_Arabic1	Colloquial_Arabic1	Berber1	French1	English1	Language_Mixing1	Total
Kabyles	Effectif	16	8	1	6	4	2	28
	% dans Wilaya	57.1%	28.6%	3.6%	21.4%	14.3%	7.1%	
	% dans \$COMMUNICATE	50.0%	80.0%	100.0%	100.0%	80.0%	50.0%	
	% du total	33.3%	16.7%	2.1%	12.5%	8.3%	4.2%	58.3%
Shawias	Effectif	7	2	0	0	1	2	11
	% dans Wilaya	63.6%	18.2%	0.0%	0.0%	9.1%	18.2%	
	% dans \$COMMUNICATE	21.9%	20.0%	0.0%	0.0%	20.0%	50.0%	
	% du total	14.6%	4.2%	0.0%	0.0%	2.1%	4.2%	22.9%
Bouira	Effectif	9	0	0	0	0	0	9
	% dans Wilaya	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	% dans \$COMMUNICATE	28.1%	0.0%	0.0%	0.0%	0.0%	0.0%	
	% du total	18.8%	0.0%	0.0%	0.0%	0.0%	0.0%	18.8%
Effectif		32	10	1	6	5	4	48
% du total		66.7%	20.8%	2.1%	12.5%	10.4%	8.3%	100.0%

Table 119: Results of the Berbers' Language Choice to Communicate with Members of Groups Who Belong to Different Arab Countries

		Standard_Arabic1	Colloquial_Arabic1	Berber1	French1	English1	Language_Mixing1	Total
Kabyles	Effectif	10	1	1	14	10	4	28
	% dans Wilaya	35.7%	3.6%	3.6%	50.0%	35.7%	14.3%	
	% dans \$différente	43.5%	50.0%	100.0%	82.4%	71.4%	66.7%	
	% du total	20.8%	2.1%	2.1%	29.2%	20.8%	8.3%	58.3%
Shawias	Effectif	5	1	0	3	4	1	11
	% dans Wilaya	45.5%	9.1%	0.0%	27.3%	36.4%	9.1%	
	% dans \$différente	21.7%	50.0%	0.0%	17.6%	28.6%	16.7%	
	% du total	10.4%	2.1%	0.0%	6.3%	8.3%	2.1%	22.9%
Bouira	Effectif	8	0	0	0	0	1	9
	% dans Wilaya	88.9%	0.0%	0.0%	0.0%	0.0%	11.1%	
	% dans \$différente	34.8%	0.0%	0.0%	0.0%	0.0%	16.7%	
	% du total	16.7%	0.0%	0.0%	0.0%	0.0%	2.1%	18.8%
Effectif		23	2	1	17	14	6	48
% du total		47.9%	4.2%	2.1%	35.4%	29.2%	12.5%	100.0%

Table 120: Results of the Berbers' Language Choice to Communicate with People Who do not Master Arabic

		to communicate with people who do not ma						Total
		Standard_Ar bic1	Colloquial_Ar abic1	Berber1	French1	English1	Language_Mi xing1	
Kabyles	Effectif	0	2	6	21	13	3	29
	% dans Wilaya	0.0%	6.9%	20.7%	72.4%	44.8%	10.3%	
	% dans \$masterArabic	0.0%	66.7%	66.7%	61.8%	59.1%	50.0%	
	% du total	0.0%	4.2%	12.5%	43.8%	27.1%	6.3%	60.4%
Shawias	Effectif	1	1	1	5	6	1	10
	% dans Wilaya	10.0%	10.0%	10.0%	50.0%	60.0%	10.0%	
	% dans \$masterArabic	100.0%	33.3%	11.1%	14.7%	27.3%	16.7%	
	% du total	2.1%	2.1%	2.1%	10.4%	12.5%	2.1%	20.8%
Bouira	Effectif	0	0	2	8	3	2	9
	% dans Wilaya	0.0%	0.0%	22.2%	88.9%	33.3%	22.2%	
	% dans \$masterArabic	0.0%	0.0%	22.2%	23.5%	13.6%	33.3%	
	% du total	0.0%	0.0%	4.2%	16.7%	6.3%	4.2%	18.8%
Effectif		1	3	9	34	22	6	48
% du total		2.1%	6.3%	18.8%	70.8%	45.8%	12.5%	100.0%

Table 121: Results of the Berbers' Language Choice to Communicate with Close People

		Standard_Ar bic1	Colloquial_Ar abic1	Berber1	French1	English1	Language_Mi xing1	Total
Kabyles	Effectif	0	14	20	9	3	3	28
	% dans Wilaya	0.0%	50.0%	71.4%	32.1%	10.7%	10.7%	
	% dans \$close	0.0%	46.7%	54.1%	60.0%	75.0%	60.0%	
	% du total	0.0%	28.6%	40.8%	18.4%	6.1%	6.1%	57.1%
Shawias	Effectif	2	12	9	3	1	0	12
	% dans Wilaya	16.7%	100.0%	75.0%	25.0%	8.3%	0.0%	
	% dans \$close	100.0%	40.0%	24.3%	20.0%	25.0%	0.0%	
	% du total	4.1%	24.5%	18.4%	6.1%	2.0%	0.0%	24.5%
Bouira	Effectif	0	4	8	3	0	2	9
	% dans Wilaya	0.0%	44.4%	88.9%	33.3%	0.0%	22.2%	
	% dans \$close	0.0%	13.3%	21.6%	20.0%	0.0%	40.0%	
	% du total	0.0%	8.2%	16.3%	6.1%	0.0%	4.1%	18.4%
Effectif		2	30	37	15	4	5	49
% du total		4.1%	61.2%	75.5%	30.6%	8.2%	10.2%	100.0%

Table 122: Results of the Berbers' Language Choice to Communicate with New Friends

		Standard_Arabic1	Colloquial_Arabic1	Berber1	French1	English1	Language_Mixing1	Total
Kabyles	Effectif	3	12	4	21	5	1	29
	% dans Wilaya	10.3%	41.4%	13.8%	72.4%	17.2%	3.4%	
	% dans \$friends	50.0%	57.1%	66.7%	61.8%	62.5%	33.3%	
	% du total	6.0%	24.0%	8.0%	42.0%	10.0%	2.0%	58.0%
Shawias	Effectif	2	7	0	6	3	1	12
	% dans Wilaya	16.7%	58.3%	0.0%	50.0%	25.0%	8.3%	
	% dans \$friends	33.3%	33.3%	0.0%	17.6%	37.5%	33.3%	
	% du total	4.0%	14.0%	0.0%	12.0%	6.0%	2.0%	24.0%
Bouira	Effectif	1	2	2	7	0	1	9
	% dans Wilaya	11.1%	22.2%	22.2%	77.8%	0.0%	11.1%	
	% dans \$friends	16.7%	9.5%	33.3%	20.6%	0.0%	33.3%	
	% du total	2.0%	4.0%	4.0%	14.0%	0.0%	2.0%	18.0%
	Effectif	6	21	6	34	8	3	50
	% du total	12.0%	42.0%	12.0%	68.0%	16.0%	6.0%	100.0%

Table 123: Results of the Berbers' Language Choice to Communicate with People of High Level of Education

		Standard_Arabic1	Colloquial_Arabic1	Berber1	French1	English1	Language_Mixing1	Total
Kabyles	Effectif	5	4	0	26	9	1	29
	% dans Wilaya	17.2%	13.8%	0.0%	89.7%	31.0%	3.4%	
	% dans \$hight	38.5%	100.0%	0.0%	65.0%	56.3%	20.0%	
	% du total	10.2%	8.2%	0.0%	53.1%	18.4%	2.0%	59.2%
Shawias	Effectif	5	0	0	6	4	1	11
	% dans Wilaya	45.5%	0.0%	0.0%	54.5%	36.4%	9.1%	
	% dans \$hight	38.5%	0.0%	0.0%	15.0%	25.0%	20.0%	
	% du total	10.2%	0.0%	0.0%	12.2%	8.2%	2.0%	22.4%
Bouira	Effectif	3	0	3	8	3	3	9
	% dans Wilaya	33.3%	0.0%	33.3%	88.9%	33.3%	33.3%	
	% dans \$hight	23.1%	0.0%	100.0%	20.0%	18.8%	60.0%	
	% du total	6.1%	0.0%	6.1%	16.3%	6.1%	6.1%	18.4%
	Effectif	13	4	3	40	16	5	49
	% du total	26.5%	8.2%	6.1%	81.6%	32.7%	10.2%	100.0%

Appendix 25: Results of the Respondents' Use of Abbreviations

Table 124: Results of the Respondents' Use of Abbreviations by Age

Age		Never	Rarely	Sometimes	Generally	Always	Total
less than 20 years old	Effectif	2	0	6	12	21	41
	% dans Age	4.9%	0.0%	14.6%	29.3%	51.2%	100.0%
	% dans I use abbreviations...	7.1%	0.0%	12.2%	21.4%	26.6%	17.0%
	% du total	0.8%	0.0%	2.5%	5.0%	8.7%	17.0%
from 21 to 25 years old	Effectif	4	10	18	22	34	88
	% dans Age	4.5%	11.4%	20.5%	25.0%	38.6%	100.0%
	% dans I use abbreviations...	14.3%	34.5%	36.7%	39.3%	43.0%	36.5%
	% du total	1.7%	4.1%	7.5%	9.1%	14.1%	36.5%
from 26 to 30 years old	Effectif	5	5	9	8	21	48
	% dans Age	10.4%	10.4%	18.8%	16.7%	43.8%	100.0%
	% dans I use abbreviations...	17.9%	17.2%	18.4%	14.3%	26.6%	19.9%
	% du total	2.1%	2.1%	3.7%	3.3%	8.7%	19.9%
from 31 to 40 years old	Effectif	8	9	11	9	2	39
	% dans Age	20.5%	23.1%	28.2%	23.1%	5.1%	100.0%
	% dans I use abbreviations...	28.6%	31.0%	22.4%	16.1%	2.5%	16.2%
	% du total	3.3%	3.7%	4.6%	3.7%	0.8%	16.2%
more than 40 years old	Effectif	9	5	5	5	1	25
	% dans Age	36.0%	20.0%	20.0%	20.0%	4.0%	100.0%
	% dans I use abbreviations...	32.1%	17.2%	10.2%	8.9%	1.3%	10.4%
	% du total	3.7%	2.1%	2.1%	2.1%	0.4%	10.4%
Total	Effectif	28	29	49	56	79	241
	% dans Age	11.6%	12.0%	20.3%	23.2%	32.8%	100.0%
	% dans I use abbreviations...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	11.6%	12.0%	20.3%	23.2%	32.8%	100.0%

Table 125: Results of the Respondents' Use of Abbreviations by Education

Education		Never	Rarely	Sometimes	Generally	Always	Total
Primary	Effectif	0	0	0	1	0	1
	% dans Educational Level	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
	% dans I use abbreviations...	0.0%	0.0%	0.0%	1.8%	0.0%	0.4%
	% du total	0.0%	0.0%	0.0%	0.4%	0.0%	0.4%
Mediate	Effectif	1	1	4	2	7	15
	% dans Educational Level	6.7%	6.7%	26.7%	13.3%	46.7%	100.0%
	% dans I use abbreviations...	3.6%	3.4%	8.2%	3.6%	8.9%	6.2%
	% du total	0.4%	0.4%	1.7%	0.8%	2.9%	6.2%
Secondary	Effectif	3	2	10	6	16	37
	% dans Educational Level	8.1%	5.4%	27.0%	16.2%	43.2%	100.0%
	% dans I use abbreviations...	10.7%	6.9%	20.4%	10.7%	20.3%	15.4%
	% du total	1.2%	0.8%	4.1%	2.5%	6.6%	15.4%
University	Effectif	15	19	25	42	48	149
	% dans Educational Level	10.1%	12.8%	16.8%	28.2%	32.2%	100.0%
	% dans I use abbreviations...	53.6%	65.5%	51.0%	75.0%	60.8%	61.8%
	% du total	6.2%	7.9%	10.4%	17.4%	19.9%	61.8%
Post- graduation	Effectif	9	7	10	5	8	39
	% dans Educational Level	23.1%	17.9%	25.6%	12.8%	20.5%	100.0%
	% dans I use abbreviations...	32.1%	24.1%	20.4%	8.9%	10.1%	16.2%
	% du total	3.7%	2.9%	4.1%	2.1%	3.3%	16.2%
Total	Effectif	28	29	49	56	79	241
	% dans Educational Level	11.6%	12.0%	20.3%	23.2%	32.8%	100.0%
	% dans I use abbreviations...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	11.6%	12.0%	20.3%	23.2%	32.8%	100.0%

Appendix 26: Results of the Respondents' Attitudes towards the Use of Emoji and Images

Table 126: Responses to the Statement “*use of emojis and images is an important addition to the modern means of communication, as they reduce misunderstanding and clarify the real intentions of messages*” According to Age

Age		Never	Rarely	Sometimes	Generally	Always	total
less than 20 years old	Effectif	0	3	8	11	19	41
	% dans Age	0.0%	7.3%	19.5%	26.8%	46.3%	100.0%
	% dans Use of Emojis and...	0.0%	18.8%	14.0%	14.5%	23.8%	17.0%
	% du total	0.0%	1.2%	3.3%	4.6%	7.9%	17.0%
from 21 to 25 years old	Effectif	5	7	12	26	37	87
	% dans Age	5.7%	8.0%	13.8%	29.9%	42.5%	100.0%
	% dans Use of Emojis and...	41.7%	43.8%	21.1%	34.2%	46.3%	36.1%
	% du total	2.1%	2.9%	5.0%	10.8%	15.4%	36.1%
from 26 to 30 years old	Effectif	3	4	9	14	18	48
	% dans Age	6.3%	8.3%	18.8%	29.2%	37.5%	100.0%
	% dans Use of Emojis and...	25.0%	25.0%	15.8%	18.4%	22.5%	19.9%
	% du total	1.2%	1.7%	3.7%	5.8%	7.5%	19.9%
from 31 to 40 years old	Effectif	1	1	16	18	3	39
	% dans Age	2.6%	2.6%	41.0%	46.2%	7.7%	100.0%
	% dans Use of Emojis and...	8.3%	6.3%	28.1%	23.7%	3.8%	16.2%
	% du total	0.4%	0.4%	6.6%	7.5%	1.2%	16.2%
more than 40 years old	Effectif	3	1	12	7	3	26
	% dans Age	11.5%	3.8%	46.2%	26.9%	11.5%	100.0%
	% dans Use of Emojis and...	25.0%	6.3%	21.1%	9.2%	3.8%	10.8%
	% du total	1.2%	0.4%	5.0%	2.9%	1.2%	10.8%
Total	Effectif	12	16	57	76	80	241
	% dans Age	5.0%	6.6%	23.7%	31.5%	33.2%	100.0%
	% dans Use of Emojis and...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	5.0%	6.6%	23.7%	31.5%	33.2%	100.0%

Table 127: Responses to the Statement “*use of emojis and images is an important addition to the modern means of communication, as they reduce misunderstanding and clarify the real intentions of messages*” According to Gender

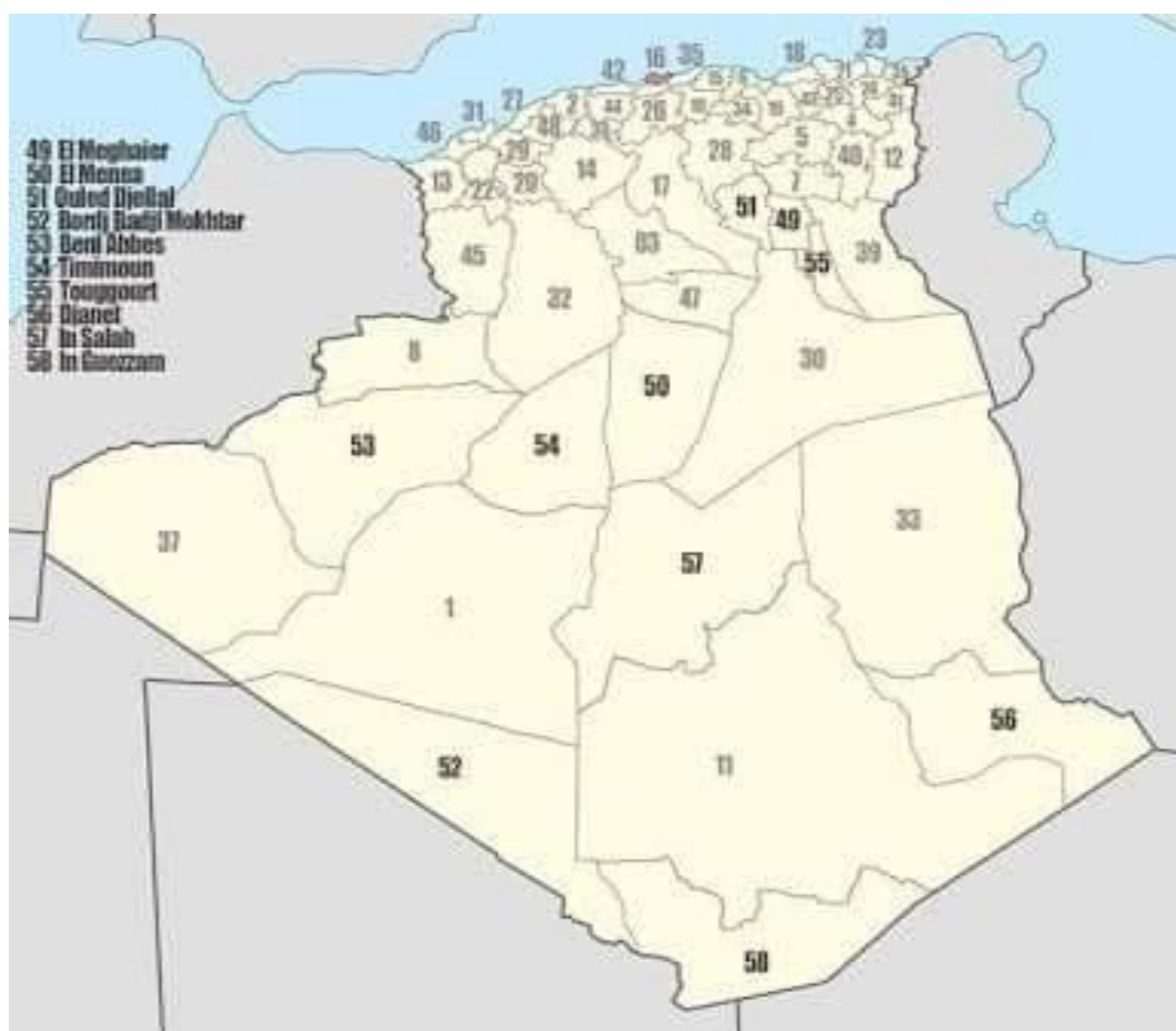
		Never	Rarely	Sometimes	Generally	Always	total
Male	Effectif	4	9	35	26	25	99
	% dans Gender	4.0%	9.1%	35.4%	26.3%	25.3%	100.0%
	% dans Use of Emojis and	33.3%	56.3%	61.4%	34.2%	31.3%	41.1%
	% du total	1.7%	3.7%	14.5%	10.8%	10.4%	41.1%
Female	Effectif	8	7	22	50	55	142
	% dans Gender	5.6%	4.9%	15.5%	35.2%	38.7%	100.0%
	% dans Use of Emojis and	66.7%	43.8%	38.6%	65.8%	68.8%	58.9%
	% du total	3.3%	2.9%	9.1%	20.7%	22.8%	58.9%
Total	Effectif	12	16	57	76	80	241
	% dans Gender	5.0%	6.6%	23.7%	31.5%	33.2%	100.0%
	% dans Use of Emojis and	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	5.0%	6.6%	23.7%	31.5%	33.2%	100.0%

Appendix 27: Results of the Respondents' Copy-Paste in Status Updates and Comments

Table 128: Results of the Respondents' Copy-Paste in Status Updates and Comments According to Educational Level

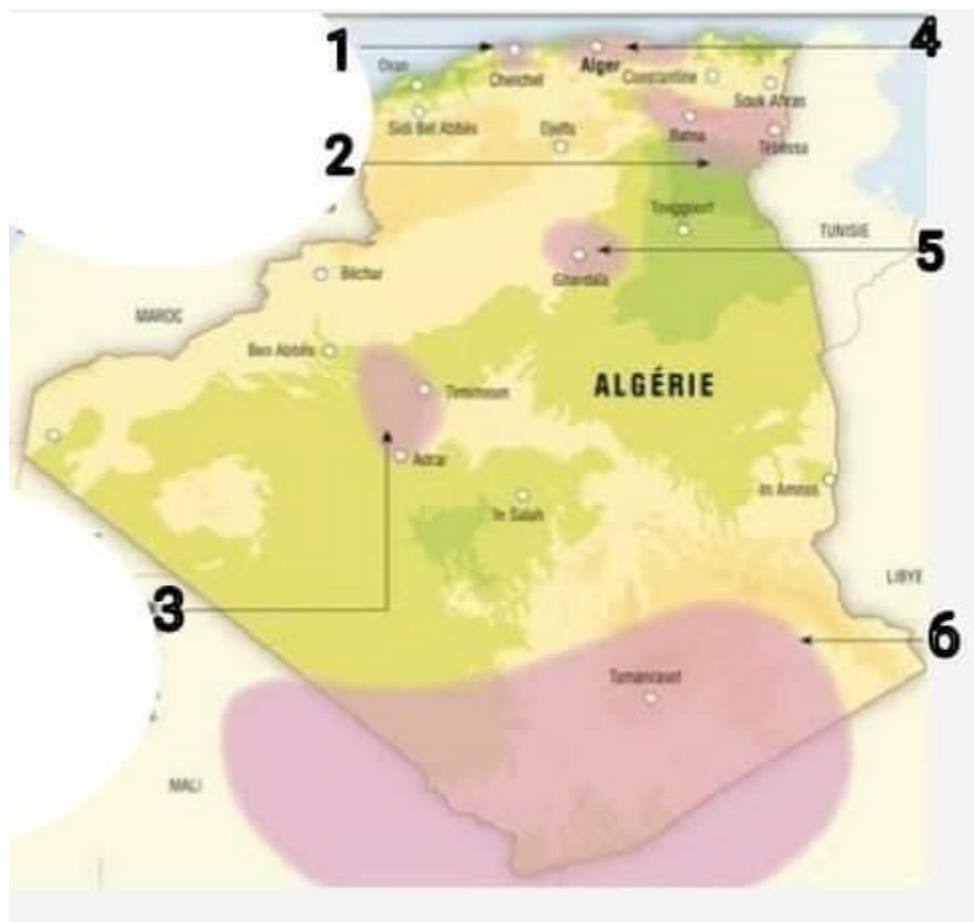
Education		Never	Rarely	Sometimes	Generally	Always	Total
Primary	Effectif	0	0	0	1	0	1
	% dans Educational Level	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
	% dans I copy-paste ready- ...	0.0%	0.0%	0.0%	2.9%	0.0%	0.4%
	% du total	0.0%	0.0%	0.0%	0.4%	0.0%	0.4%
Mediate	Effectif	2	2	7	4	0	15
	% dans Educational Level	13.3%	13.3%	46.7%	26.7%	0.0%	100.0%
	% dans I copy-paste ready- ...	2.8%	4.9%	9.2%	11.4%	0.0%	6.2%
	% du total	0.8%	0.8%	2.9%	1.7%	0.0%	6.2%
Secondary	Effectif	8	1	15	8	5	37
	% dans Educational Level	21.6%	2.7%	40.5%	21.6%	13.5%	100.0%
	% dans I copy-paste ready- ...	11.3%	2.4%	19.7%	22.9%	26.3%	15.3%
	% du total	3.3%	0.4%	6.2%	3.3%	2.1%	15.3%
University	Effectif	51	29	43	17	10	150
	% dans Educational Level	34.0%	19.3%	28.7%	11.3%	6.7%	100.0%
	% dans I copy-paste ready- ...	71.8%	70.7%	56.6%	48.6%	52.6%	62.0%
	% du total	21.1%	12.0%	17.8%	7.0%	4.1%	62.0%
Post-graduation	Effectif	10	9	11	5	4	39
	% dans Educational Level	25.6%	23.1%	28.2%	12.8%	10.3%	100.0%
	% dans I copy-paste ready- ...	14.1%	22.0%	14.5%	14.3%	21.1%	16.1%
	% du total	4.1%	3.7%	4.5%	2.1%	1.7%	16.1%
Total	Effectif	71	41	76	35	19	242
	% dans Educational Level	29.3%	16.9%	31.4%	14.5%	7.9%	100.0%
	% dans I copy-paste ready- ...	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	% du total	29.3%	16.9%	31.4%	14.5%	7.9%	100.0%

Appendix 28: Wilayas of Algeria



CODE	WILAYAS	CODE	WILAYAS	CODE	WILAYAS	CODE	WILAYAS
1	ADRAR	15	TIZI OUZOU	30	OUARGLA	45	NAAMA
2	CHLEF	16	ALGER	31	ORAN	46	AIN TIMOUCHENT
3	LAGHOUAT	17	DJELFA	32	ELBAYADH	47	GHARDAIA
4	QUM EL BOUAGHI	18	DJIJEL	33	ILLIZI	48	GHELIZANE
5	BATNA	19	SETIF	34	BORDJ BOU ARRERIDJ	49	ELMEGHIAR
6	BEJAIA	20	SAIDA	35	BOUMERDES	50	ELMENEA
7	BISKRA	21	SKIKDA	36	ELTAREF	51	OULED DJALLEL
8	BECHAR	22	SIDI BELABESSE	37	TINDOUF	52	BORDJ BAJI MOKHTAR
9	BLIDA	23	ANNABA	38	TISSEMSILET	53	BNI ABBES
10	BOUIRA	24	GUELMA	39	ELOUED	54	TIMIMOUN
11	TAMANRASSET	25	CINSTANTINE	40	KHENCHLA	55	TOUGGOURT
12	TEBESSA	26	MEDIA	41	SOUK AHRAS	56	DJANET
13	TLEMCEN	27	MOSTAGANEM	42	TIPAZA	57	AIN SALAH
14	TIARET	28	MESILA	43	MILA	58	AIN GUEZZAM
		29	MASCARA	44	AIN DEFLA		

Appendix 29: Berbers of Algeria



1-LA TACHNOUIT	2-LE TACHAOUIT	3-LA ZENETE
Est la langue usitée par les populations berbères réparties sur les monts chenoua et zaccar dans le centre ouest du pays les chenouis sont estimés à moins 100,000 personnes	Le tachaouit est utilisé dans les pays essentiellement dans le pays Aures ,les chaouis sont estimés à un peu plus de 2 millions de personnes	La zénète a donné son nom à son nom a ses 150000 locuteurs concentrés dans le toutat Guelma dans le sud ouest du pays.

4-LE TAQBAYLIT	5-LE TAMZABIT	6-LE TAMASHAQ
Le taqbaylit est la déclinaison de tamazight la plus répandue dans le centre du pays, des massifs du djurdjura aux monts des Bibans, il est utilisé par quelque 5 millions locuteurs	Tient lieu de vecteur identifier pour la minorité religieuse ibadite confinée dans un premier temps, dans la seule vallée du mzab aux portes du sahara central et aujourd'hui représentée dans toute les grandes villes algériennes par migrants " réputés pour leur savoir faire commercial le nombre de locuteurs est évalué à plus de 200000	la langue touareg a offert son alphabet tifi-niagh, au tamazight elle est utilisée par plus d'un million de locuteurs regroupés en deux entités distinctes : les kel ahaggar touaregs du hoggar et les kel ajjer

Appendix 30: Touareg Berbers in Africa



Résumé

Le caractère omniprésent des environnements numériques de la communication et leur popularité, conjugués à des développements technologiques constants, ont alimenté l'interaction des humains et modifié la façon dont les gens vivent, étudient, travaillent et utilisent le langage. En effet, l'intégration de Facebook, un de ces environnements numériques, dans les habitudes sociales courantes des Algériens a suscité la curiosité et l'intérêt pour une investigation scientifique de la réalité sociolinguistique algérienne sur Internet, afin de voir s'il est fidèlement et fortement représenté dans un cadre technologique de communication avancé. Par conséquent, la recherche en cours est organisée dans le contexte de la " linguistique de l'Internet ", un domaine qui a été ouvert pour inclure plusieurs sous-domaines. Dans une telle étude centrée sur la langue, l'analyse du discours assistée par ordinateur est adoptée comme approche de recherche . Elle repose principalement sur une conception empirique. La collecte des données empiriques nécessaires à cette recherche s'appuie sur deux types de sources, à savoir les données des utilisateurs et les données d'écran ; c'est-à-dire que la collecte des données repose sur des techniques ethnographiques et textuelles. Le premier type repose sur l'observation en ligne, les entrevues semi-structurées et sur la méthode d'échantillonnage en boule de neige pour le questionnaire, alors que le second repose sur un échantillonnage aléatoire et un échantillonnage par thème. Une approche mixte est utilisée pour l'analyse des données recueillies par les techniques ethnographiques tandis qu'une analyse multimodale du discours est adoptée pour l'analyse des données d'écran. Les résultats de cette recherche empirique révèlent que la richesse et la complexité du profil sociolinguistique algérien a été transmise et maintenue sur Facebook. En outre, les analyses de textes multimodaux indiquent que les Algériens s'appuient sur les ressources numériques et sémiotiques accessibles en ligne pour s'exprimer et se faire connaître de manière créative, ce qui conduit, par conséquent, à l'émergence de nombreuses nouvelles pratiques linguistiques.

Mots clés : La situation sociolinguistique algérienne, les environnements numériques de la communication, Facebook, le discours multimodal.

ملخص

إن اتساع رقعة انتشار بيانات الاتصال الرقمية وشعبيتها الكبيرة، واقتترانها بالتطورات التكنولوجية المستمرة، قد أذكى التفاعل البشري وغيّر طريقة عيش الناس ودراساتهم وعملهم واستخدامهم للغة. وقد أثار تعميم الفاسبوك Facebook، إحدى هذه البيئات الرقمية، وتداوله في الممارسات الاجتماعية اليومية للجزائريين، فضولاً واهتماماً للمباشرة في بحث علمي حول الوضع الاجتماعي اللغوي الجزائري على الإنترنت، من أجل معرفة ما إذا كان ممثلاً بشكل قوي وبأمانة في إطار تكنولوجيا الاتصالات المتقدمة. وتبعاً لذلك، فإن البحث الحالي يندرج ضمن سياق "لغويات الإنترنت"، وهو مجال يتسع ليشمل العديد من المجالات الفرعية. ويتم الاعتماد في مثل هذه الدراسة التي تتمحور حول اللغة، على تحليل الخطاب بوساطة الكمبيوتر كنهج بحثي، والذي يستند بدوره وبشكل أساسي على تصميم تجريبي. فيما يركز جمع البيانات التجريبية اللازمة لهذا البحث على نوعين من المصادر، هما بيانات المستخدم وبيانات الشاشة؛ أي أن جمع البيانات يقوم على التقنيات الإثنوغرافية والنصية معاً. ويعتمد النوع الأول من البيانات على الملاحظة عبر الإنترنت، والمقابلات شبه الهيكلية، وأخذ عينات بنمط كرات الثلج فيما يخص الاستبيان، بينما يعتمد النوع الثاني على أخذ العينات العشوائية والعينات المواضيعية. ويستخدم في ذلك نهج مختلط لتحليل البيانات التي تم جمعها بواسطة التقنيات الإثنوغرافية، فيما يتم اعتماد تحليل الخطاب متعدد الوسائط لتحليل بيانات الشاشة. وتكشف نتائج هذا البحث التجريبي أن السجل الاجتماعي اللغوي الجزائري الذي يتميز بالثراء والتعقيد قد انتقل إلى الفيسبوك Facebook وتمت المحافظة عليه. بالإضافة إلى ذلك، تشير تحليلات النصوص متعددة الوسائط إلى أن الجزائريين يعتمدون على الموارد الرقمية وعلى العلامات والرموز المتاحة عبر الإنترنت للتعبير عن ذاتهم والتعريف بأنفسهم بطريقة خلاقية، ما يؤدي، بالتالي، إلى ظهور العديد من الممارسات اللغوية الجديدة.

الكلمات المفتاحية: الوضع اللغوي الاجتماعي الجزائري، بيانات الاتصال الرقمية، الفيسبوك، الخطاب متعدد الوسائط.