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### A Socio-Cultural Analysis of COVID-19 Related Lexicon in Social Media

Case of the study: Algerian social media users

A Dissertation Submitted in Partial Fulfillment of the Requirements for a Master's Degree in Linguistics

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#### **ABSTRACT**

The study tries to apply socio-cultural analyses on covid19 lexicon used by social media, mainly by Algerian users. This study aims to explore the new covid-19 lexicon Algerian media users employ, and to explain the socio-cultural position toward this lexicon's use. This research study follows the procedures of exploratory design which bases on quantitative method. The data is collected through the observation and exploration of 77 Algerian social media accounts of different classes on three social media platforms: Facebook, Instagram and Twitter. We explore tweets, posts, hash-tags, publications and comments of governmental, media, celebrities and public users. The study found that the Algerian social media users were aware of COVID-19 pandemic. In addition, there were different characteristics of covid-19 lexicon were used by the Algerian users as shown in the study findings. In addition, the Algerian culture and society fingerprint was clearly demonstrated on the use of covid-19 lexicon throughout the social media.

*Key words:* covid19 lexicon, social media, socio-culture, social classes, Algerian media users.

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#### **DEDICATION**

To my parents,

My sisters and my brother, To all my family,

To my friends,

For all who encouraged me, supported me and helped me

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#### LIST OF ABBREVIATION

Covid-19: Coronavirus Disease-2019

FDA: The Food and Drug Administration

SARS-CoV-2: acute respiratory syndrome coronavirus 2 USA:

United States of America

WHO: World Health Organization

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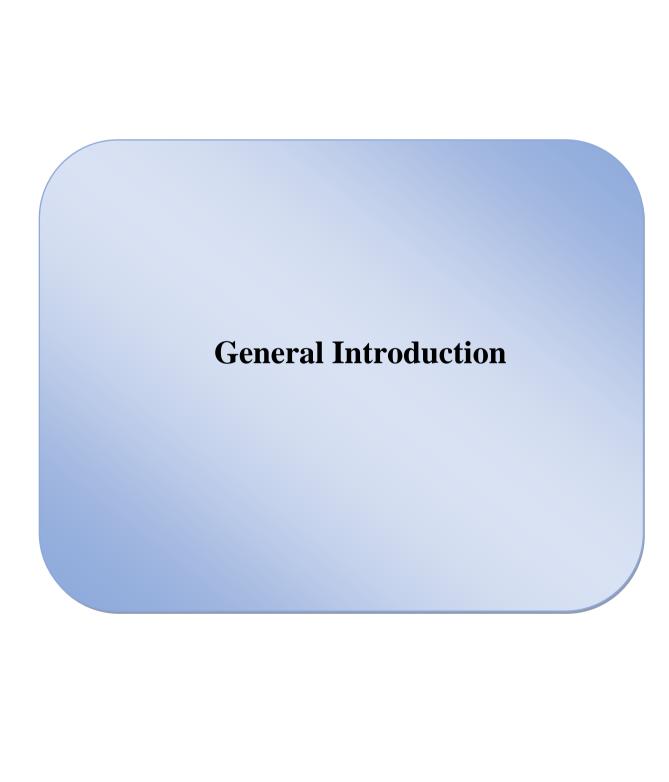
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#### 1. Statement of the problem

The spread of Corona virus had a significant impact on the world. Different life aspects haven drastically affected. More specifically, people were obliged to stay in quarantine for most of the time. The psychological and the physical states were a reaction to the change of the daily routine as well as the economic factor which was considerably affected. Moreover, the global pandemic put people in isolation, distancing them from each other; and thus, the world was put under restriction, and every human being was put under self-isolation (as cited in Dubey, Biswas, Ghosh, Chatterjee, Dubey, Chatterjee, & Lavie, 2020).

Since the covid-19 outbreak, the lives of billions of people have been reshaped. Just as life transformed so did lexicon emerged to reflect that change. The media that cover these events have been the most active player in the forming and expansion of these lexicons. From the beginning of covid-19, many lexica appeared and were used by the world population from different social classes. Many terms had been used such as coronavirus, corona, pandemic, covid19 virus, corona covid-19 pandemic, and virus. In this study we explore and collect the covid19 lexicon used especially in Algeria among Algerian media users. In addition, in this study we are interested in analyzing the covid-19 related lexica employed through Algeria Social media users to find where they stand from corona virus and how they dealt with it. We also attempt to highlight the characteristics that shape the new lexicon.

On the other hand, culture has a large influence on language (as cited in Tariq, Ishtiaq, Khalid, Yousaf, & Ahmed, 2019). For a non-native speaker, the focus on the distinction between foreign language and the mother tongue is highly needed; it is also considered necessary to pay attention to the numerous features shared by the two languages. More specifically, culture and society play an important role in the forming of words and phrases. Thus, this study intends to discuss how culture and society affect words covid -19 lexicon.

Consequently, with regard to the present study, the covid-19 lexicon be investigated. Precisely, we try to explain the effect of culture and social classes on the use of corona virus lexicon among the Algerian social media users.

#### **General introduction**

#### 2. Research questions

The present study focuses on elaborating the Covid-19 related lexicon employed by Algerian media users, and explaining them from a socio-cultural perspective. Therefore, basing on the problematic stated above, our study be guided by three major questions:

- 1) What is the position of Algerian media users towards the covid-19 pandemic?
- 2) What are the characteristics of covid-19 lexicon used by Algerian media users?
- 3) How all does Algerian culture and society affect the use of covid-19 lexicon throughout social media?

#### 3. Aim and significance of the study

This study aims to explore the new covid-19 lexicon used by Algerian media users, and explaining the socio-cultural position toward this virus. From general perspective, this study tries explore the new covid-19 lexicon used by Algerian social media users and demonstrate how Algerian society and culture affect the use of this coivd-19 lexicon.

More precisely, this study has three major aims. First, we tend to explore the different covid lexica employed throughout three major social media platforms; namely: Twitter, Instagram and Facebook. Then, we would like to elaborate whether there a difference in the use of these lexica among different Algerian social classes mainly: government, media and public users. Finally, we try to explain these differences (if any) from cultural perspective.

#### 4. Sample and population

This research work is interested in elaborating from the socio-cultural perspective the Covid-19 related lexicon employed by Algerian social media users. Therefore, the population of our study is based on the Algerian users of the three foremost platforms of social media; namely: Facebook, Intagram and Twitter.

We go through the analysis of different social classes for each platform (mainly government, media and public) which makes a total of 77 accounts. In particular, through twitter we analyze three categories; Algerian governmental users (like politicians and political organizations); the second category was Algerian public users; and finally, Algerian media users (journalists' accounts and journalistic pages).

#### **General introduction**

For Instagram, we analyze variety of Algerian public users' publications, Algerian media users (media pages and reporters accounts), and finally the third category was the Algerian celebrities.

Finally for Facebook users, we used four categories of users. We analyze the governmental pages, media publications which were journalists and journalistic pages, Algerian celebrities and finally public users.

#### 5. Research design, methods and tools

The aim of this research is to explore covid-19 related lexicon that had been used on Algerian social media and elaborate the role that Algerian social differences and culture have on the lexicon's use. Therefore, this research study follows the procedures of exploratory design which bases on quantitative method.

The data is collected through the observation and exploration of 77 Algerian accounts of different classes on three social media platforms: Facebook, Instagram and Twitter. We explore tweets, posts, hash-tags, publications and comments of governmental, media, celebrities and public users.

Throughout our study, we collect the different Covid-19 lexica that these users used from a period of March 2020 until March 2021, then we divide them into categories: nouns, adjectives and hash-tags (that include both nouns and verbs).

#### 6. Time and setting

This research bases on specific set of time in social media. Corona virus has emerged in Wuhan (China) since December 8<sup>th</sup>, 2019; however, it has widespread in Algeria for the first time in February, 2020.

This study focuses on the analysis of social media publication in period of March 2020 until March 2021 in order to follow the lexicon through the different stages of Corona's widespread (from mild to severe). We analyze publications, tweets, posts, hashtags and comments of Algerian media users in three different platforms which are Facebook, Intagram and Twitter.

#### 7. Description of the study

This study is a socio-cultural analysis of covid19 lexicon throughout social media; more specifically, Algerian media users. The study aims at explore the different kinds of

#### **General introduction**

lexica found in Algerian publication. It also aims at explaining the difference between different Algerian social classes from socio-cultural perspective.

Therefore, this research is composed of the general introduction, two chapters in addition to the general conclusion. In the general introduction, we provide with an explanation of the problem under study; then, the research questions, the aim and significance of the study, the sample and population of the study, an overview of the methodology and procedures of our investigation, the time and the setting and we conclude this section with the description of the study.

Subsequently, the first chapter provides a theoretical background. The first section was about lexicology; its definition, its relation to other linguistic branches and its approaches to lexical analysis. In this section, we also explain the basics of socio-cultural analysis.

Afterwards, the second chapter describes the research methods and the research instruments to conduct this research, the target population in the first section. The second section was devoted to presentation of the results and the findings, followed by the third section where a moderate discussion of findings, the limitations of the study and some suggestions and recommendations.

Finally the study is concluded with the general conclusion in which we summarize the whole study.

# CHAPTER ONE LITERATURE REVIEW

#### Introduction

The emergence of Corona virus in the world led to chaos, and its invasion in all regions of the world caused in spreading a state of great panic among people regardless of their social, economic or cultural status. Staying at homes led to increase fear and panic, and this prompted people to go to social media and share their fears and news related to this epidemic with each other. For this reason, this study attempts to explore the covid-19 related lexicon used by specifically Algerian social media users and explain the sociocultural dimension of its usage.

This chapter contains the theoretical part of the important aspects of the study. It is divided into three sections that explore the several points related to the lexical analysis of covid-19 lexicon on social media users. In the first section, we introduce and define lexicology and lexical studies in addition to socio-cultural analysis. In the second one, we define social media, its use and its importance in expressing ideas, opinion and feelings. Finally, in the last section we talk about the emergence of covid-19 in the world and in Algeria.

#### Section one: Introducing Lexicology and Socio-Cultural Approach

This study investigates the Covid-19 lexicon used in social media by Algerian users, and explains the relation between the culture and the lexicon use.

In this section, we focus on introducing lexicology and lexical studies, what lexicology is, and the different approaches to lexicological analysis; we also introduced socio-cultural approach and the relation between language and culture.

#### 1. Defining lexicology

Lexicology is defined as the study of lexicon (Gold, 1983, p. 361). It is composed of two morphemes "Lexis" which means "word/phrase", and "Logos" meaning "Learning" (Akhmetzyanova, p.4.).

Likewise, (Jhienbaeva, Kurbanova, Kamalbaev, Zhenisbek, & Abutalip, 2021, p. 53-54) claims that Lexicology (from Greek "lexis"-"word" and "logos"-"learning") is part of linguistics that deals with the vocabulary of a language and properties of words as the main units of language. Moreover, it is a branch of linguistics which studies the vocabulary system of a language, the words of a language. Word can be defined as a structural and semantic entity of the language system. It is at the same time a semantic, grammatical and phonological unit (as cited in Jhienbaeva, Kurbanova, Kamalbaev, Zhenisbek, & Abutalip, 2021, p. 53-54). Furthermore, a word is the smallest significant unit of a given language capable of functioning alone and characterized by positional mobility within a sentence, "Morphological uninterruptability" and "semantic integrity" (Cruse, 1986).

On the other side, Jhienbaeva, Kurbanova, Kamalbaev, Zhenisbek, and Abutalip (2021, p. 53-54) explained the difference between "word" and vocabulary. The term "vocabulary" refers the total set of all the words and word equivalents that a language possesses; whereas, the term "word" means the basic unit of a given language. It's a unity of a particular grammatical employment. A word is a semantic, grammatical and phonological unit at the same time. That is to say, vocabulary does not only mean one word, but also all the equivalents words that stand to this word. This latter refers only to that grammatical unit.

Furthermore, the vocabulary language is a self-adapting system that adjusts to the changing demands and conditions of human communication and cultural context. It grows through overcoming contradictions between its existing situations and the new tasks and

expectations it must satisfy (Jhienbaeva, Kurbanova, Kamalbaev, Zhenisbek, and Abutalip .2021).

Lexicology studies various lexical units, words, variables, word-groups, phraseological units and morphemes which make up words. The word as well as any linguistic sign is a two-faced unit possessing both form and content (as cited in Jhienbaeva, Kurbanova, Kamalbaev, Zhenisbek, & Abutalip, 2021, p. 53-54).

Learning, from another side, "is a complex process of discovery, collaboration, and inquiry facilitated by language. Composed of interrelated and rule-governed symbol systems, language is a social and uniquely human means of representing, exploring, and communicating meaning". (manitoba.ca > Education > K-12 > Curriculum > English Language Arts).

Lexicology is defined as the study of lexicon or lexis (specified as the vocabulary or stock of words of a language). The most important point is that in lexicology the stock of words or lexical items is not simply regarded as a list of isolated elements. Lexicologists try to find out generalizations and regularities; and especially consider relations between elements. Lexicology is therefore concerned with structures, not with a new "agglomeration of words. (Borysenko, 2005).

There are several areas of lexicological science that study different aspects of it. For instance, general lexicology is the study of words and vocabulary in general, based on language. However, special lexicology is concerned with the description of a language's peculiarities, synonymy, antonymy, hyponomy, semantic fields, and other types of semantic grouping and semantic relations are studied in lexicology. Semantics is the study of meaning that is important to both lexicology and grammar; it is concerned with all meaning connections (Borysenko, 2005).

#### 2. The Relationship between Lexicology and other Linguistic Branches

Lexicology has been introduced into linguistics as a discipline, and it was less accepted in the other core-linguistic branches mostly because phonology, morphology, semantics, and syntax are all interrelated. However, the lexicon's place at the intersection of these key components of grammar, as well as a growing awareness of the lexicon's importance for grammar theories, has required the development of a linguistic discipline dealing with the study of lexical structures. (Schmid, 2012).

Lexicology is often interested in elaborating three main domains. These domains are well explained in words which are summarized in the following three areas:

- The study of word meaning (lexical semantics)
- The study of lexical structure and relations (word fields, synonyms...)
- The study of the morphological structure of words and of the regularities underlying the coining of new words (word-formation).

Moreover, (Schmid, 2012) mentions that lexicology is a subfield of linguistics which is also related to other linguistics' branches. More specifically, lexicology is connected to phonetics for the reason that the sound form of a word consists of phonemes or their allophones (variant of phonemes). Although phonemes have no meaning of their own, they serve to distinguish word meaning; e.g. [laik], [leik[, [luk], [læk], [lʌk], [liːk] (as cited in Karpenko, 2018). In addition, the order of phonemes in a word is also important in elaborating its meaning. Furthermore, the role of stress and super segmental elements (phonetic element) can easily change the meaning of lexical and grammatical meaning.

Besides phonetics, lexicology is also connected with the field of stylistics

#### 3. Approaches to Lexicological Analysis

Different methods of investigation can be applied to studying lexicons of a given language. They are: methods of contrastive analysis, distributional analysis, immediate constituents analysis, componential analysis, transformational analysis and the methods of semantic differentiation.

#### 3.1 Contrastive analysis (CA)

Contrastive analysis is seen as a bilingual, interlinguistic phenomenon that deals with both the form and function of language (James, 1980). It deals with the systematic comparison of two or more languages with the goal of characterizing their similarities and differences.CA has been used for different objectives, including practical and educational ones. The goal was to provide language learners with more accurate descriptions and teaching materials (cited in Johansson, 2008).

Contrastive analysis' goal is to show similarities and differences between related and unrelated languages. Borysenko (2005) explained that CA emerged as a result of a practical need for a language teaching strategy in which it was empirically demonstrated that foreign language student mistakes are commonly related mistakes when it comes to structural differences between the target and instruction languages. The comparison done

following CA procedure is based on three levels of linguistics: phonology, grammar, and lexis. In lexicology, contrastive analysis is used to show similarities and differences in the lexical meaning and semantic structure of associated terms across languages (as cited in Borysenko, 2005).

#### 3.2 Distributional analysis

The term "distribution" refers to the occurrence of a lexical unit in relation to other lexical units at similar levels: words to words, morphemes to morphemes. To put it another way, this phrase refers to the place that a lexical unit holds or may have in a text or in the flow of speech. When a term is identified distributionally, it is established that a specific component of its meaning is described. The form that is lacking in the statement "The\_\_\_boy home", for example, is immediately recognizable as a verb rather than a noun, adjective, or adverb. As a result, only a few verbs or word-forms can be inserted in the gap contextually: goes, comes, runs, went, came. As a result, we can observe that the distributionally identifiable component of meaning is actually the part-of-speech meaning. (Borysenko, 2005).

In some circumstances, words have various lexical meanings in different distributional patterns. For example, in the phrases "to treat somebody gently" and "to treat somebody to ice-cream," the verb "to treat" has various lexical meanings (cited in Borysenko, 2005).

#### 3.3 Immediate constituents analysis:

Immediate constituent analysis is a type of linguistic analysis that deconstructs longer phrases or sentences into their individual components, sometimes down to single words. Immediate constituent analysis is a type of text or speech analysis that is frequently generated after breaking down the elements of a sentence or phrase into groups of words with semantical cooperation or related meaning (cited in Mukherjee, 2020). That is to say that it is a linguistic analysis

#### 3.4 Componential analysis:

Componential analysis is a method of describing meaning relationships by breaking down each word into its smallest components of meaning, known as *sememes* or *semes*. The componential analysis is at the heart of the semantics conceptual domain. The semantic properties of lexical items are universal, and they are at the heart of our basic

cognitive process for meaning ordering. The concept of *binarism* is at the heart of componential analysis.

The componential analysis gives a descriptive model for understanding meaning since the meanings of lexical units are not self-contained and have meaning as a result of other interactions that might be either obvious in the text or limited. According to Kempson words meaning are examined as structures made of semantic elements instead of single ideas (1977, p.18).

#### 3.5 Transformational analysis:

Re-patterning of diverse distributional structures in lexicological research can be characterized as determining the difference or similarity of meaning of essentially identical distributional patterns.

#### 3.6 Statistical analysis:

It is considered as one of the most important branches of linguistics. The solutions and explanation of specific difficulties related to qualitative and quantitative language use can be improved by insights derived from statistical analyses of the vocabulary. Statistical inquiries have considerable importance because of their relevance to certain problems of the selection of vocabulary items for the purposes of language usage and language teaching. Few people, for instance, know more than 10% of the words in their mother tongue. Statistical regularities can be observed only if the phenomena under analysis are sufficiently numerous. Thus, the first requirement of any statistic investigation is the size of the sample material (Borysenko, 2005)

#### 4. Socio-cultural approach

#### 4.1 Defining Socio-cultural approach

The goal of socio-cultural theory is to explain how individual mental functioning is influenced by cultural, institutional, and historical contexts. Therefore, the socio-cultural perspective focuses on the roles that social interactions and culturally organized activities play in psychological development. Much of the framework for socio-cultural theory was pioneered by Lev Vygotsky (in 1931 to 1997). Vygotsky argued that "The social component of consciousness is primary in time and fact, the individual dimension of

consciousness is derivative and secondary" (Vygotsky, 1979, p. 30, cited in Wertsch & Bivens, 1992).

Individual mental functioning is not simply derived from social contact, according to this approach; rather, the unique structures and processes revealed by people may be linked back to their interactions with others. In Vygotsky's works, Wertsch (1991) identified three key themes that clarify the nature of the connection between individual and social processes in learning and development (Scott, S., & Palincsar, A. 2013).

Vygotsky and his associates in Russia in the 1920s and 1930s were the first to systematize and use socio-cultural methods to learning and development. They are based on the idea that human actions take place in cultural settings, are mediated by language and other symbols, and are best understood when viewed in the context of history. Vygotsky's theories have been widely dispersed, and his work has been used in a variety of national settings, resulting in "a complex of connected but varied suggestions» (as cited in Rogoff, Radziszemska, & Masiello, 1995. P.125.). He came to his conclusions by examining the crises in psychology that he found in two of the field's most prominent schools, "each of which claimed to possess an explanatory framework enough to form a basis of general psychology" (Kozulin, 1990,p. 87).

#### 5. The relationship between language, culture and society

Culture originally referred to unique intellectual or creative activities or products; however, nowadays it refers to a "high culture" as opposed to "popular culture" (or "folkways" in previous use) (cited in Spencer-Oatey, & Franklin, 2012).

Language is a set of random linguistic structures used by a social group to communicate. (Lyons, J. 1981).

According to Wenying Jiang (2020 p328) Language and culture are interrelated and have a complementary relationship since language is a part of culture. Through language we can guess the culture of a person.

Cultural information is communicated through language in both verbal and written form. The expression of culture is strongly related to language, whereas language is influenced by culture. (Tariq, Ishtiaq, Khalid, Yousaf & Ahmed, 2019).

In this setting, a language is also taught and used, based on the culture. In the same way that language guides a community's norms, practices, ideologies, and customs, culture guides the norms, practices, ideologies, and customs of a similar community (Tariq, Ishtiaq, Khalid, Yousaf & Ahmed, 2019).

Language is widely considered as a component of culture and as having a significant impact on it. Culture, according to some sociologists, would be impossible to develop without language. At the same time, language reflects and is formed by culture. It is also the symbolic representation of a people in the wider definition, since it encompasses their historical and cultural origins, as well as their outlook on life and methods of living and thinking. A language is a part of a culture, and culture is a part of a language, the two are intimately linked to the point where they cannot be separated without losing the value of either language or culture In a sense, culture and language are intimately connected (cited in Jiang, 2000, p. 328).

There is always an interactive relationship between language and culture: the two cannot function without each other. They come together to create a living organism, to explain well we give an example; if society was a swimming pool; culture would be the water and language the swimming skill; when the both exist, people communicate successfully (Jiang, 2000, p. 328).

While grammatical development is influenced by a simplified speech environment, cultural values associated with certain codes have an influence on their learning. Furthermore, the acquisition of certain grammatical constructions is strongly influenced by cultural systems of belief, knowledge, and social order (Jourdan & Tuite 2006).

In this section we dealt with both lexical analysis and sociocultural analysis. We defined both of these analysis. We mentioned the differend approaches to lexicology, and the relationship between culture and language.

#### Section two: Social media

Social media are online platforms and network sites that people use to interact, communicate with each other virtually, get knowledge and make researches, express feelings, ideas, opinions and share them with the world, post stories pictures and videos.

In this section, we define social media, its use and effect on people; and we will introduce three different media facebook, twitter, and instagram.

#### 6. Social media

Social media is defined as set of internet-based apps that build on the conceptual and technological foundations of Web 2.0, and that allow the production and sharing of user-generated content" (Kaplan & Haenlein, 2010, p. 61). According to Demangeot & Broderick, 2010; Lau, 2017; Mangold and Faulds (2009): "Over the last two decades, the term social media has been used to describe online platforms as varied as blogs and microblogs (e.g., Twitter), social network sites (e.g., Facebook), virtual worlds (e.g., Second Life), collaborative projects (e.g., Wikipedia), video-sharing sites (e.g., YouTube), and more" (as cited in Rhee, Bayer, Lee, & Kuru, 2020)

As a consequence, a broad set of perspectives have been adopted across research areas on how to define this seemingly amorphous set of communication technologies. For instance, some studies have used definitions that focus on the nature of message; whereas others focus on specific devices or affordances.

According to Anita Whitings and David Williams(2013) "Social media is defined as a set of internet-based applications that is build on the conceptual and technological principles of Web 2.0, and that allow the production and exchange of user created content".( as cited in Kaplan & Haenlein, 2010, p. 61)".

According to the authors, Web 2.0 refers to a set of technologies and concepts that enable and drive the development of media-rich content on the internet. Through social media, consumers create, share, and use a range of online information sources to educate one another about the products, services, and brands available in the marketplace. According to Whitings and Williams (2013): "Social network sites are web-based services that allow individuals to create a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections as well as those made by others within the system" (as cited in Kane & Al., 2014)."

Social media is a way of communicating that allows people to interact with thousands, if not billions, of people all around world. Social Media has been defined as websites which allow profile creation and visibility of relationships between users (Boyd & Ellison, 2008); web-based applications which provide functionality for sharing, relationships, group, conversation and profiles (Kietzmann & Al., 2011).

According to Diga & Kelleher (2009) social media has been defined as a social network sites (cited in Diga, & Kelleher, 2009, p.440–442).

Social networking sites like Facebook, photo sharing sites like Flickr, video sharing sites like YouTube, business networking sites like LinkedIn, micro blogging sites like Twitter, and many others are examples of current social media platforms. Social networking platforms are low-cost and, in many cases, entirely free to use. (Diga, & Kelleher, 2009)

The term "social media" refers to the usage of online or internet-based technology. Many programs (websites, mobile applications, online systems) allow programmatic connection with other Web 2.0 applications, following the transparency, sharing, and integration concept of Web 2.0. There are several types of social media that people use almost every day such as Facebook, Instagram, Twitter, Whatsap, Youtube; it became a part of our daily life. (Whiting, & Williams)

Social media are used in daily life by all people young, adults, men and women by all genders and ages. Social media are use for many purposes such as social interaction; we use to communicate and interact with others, keep up with what happens in society. Social media provide opportunities for users to engage in self-presentation of identity (DeAndrea, Shaw, & Levine, 2010; Grasmuck, Martin, & Zhao, 2009; Pempek et al., 2009; Zhao, Grasmucks, & Martina, 2008) and "talk" with family, friends, and colleagues (Mazer, Murphy, & Simonds, 2007; Page, 2010; Pempek et al., 2009, as cited in (Wilson, Hodges, Smith, & Zakeri, (2012).

We use it also to get information or educate ourselves, to read, study, and inform ourselves. It is also used for passing time filling our free moments and get rid of boredom, to entertain ourselves, relieve day to day stress, share our knowledge and information with others, as we use it know and meet new people inerract and exchange with them, express our feelings, thoughts and ideas, post photos and videos on different social media such us Facebook, twitter and Instagram (cited in Whiting & Williams 2013).

#### 7. The Most Used Social Media around the World

#### 7.1 Facebook

Mark Zuckerberg, with the aid of Andrew McColum and Eduardo Saverin, developed a website in February 2004 that would permanently transform online social interaction. Facebook began on the Harvard University campus, where the three friends were undergraduates, with Zuckerberg majoring in psychology. Within 24 hours of going live, The Facebook was a community of 1200 Harvard University students.the Facebook buzz increased on the Harvard campus, and within weeks, students from Stanford and Yale wanted in. By April 2004, the network had been expanded, and Facebook was available on all Ivy League servers. However, Zuckerberg need assistance in order to expand his little but strong social networking platform. He would not stop until Facebook was installed on every university campus in the United States. He left out of Harvard in May 2004, barely four months after the founding of Facebook, and moved to Silicon Valley alongside Mc Colum and Dustin Moskovitz. They received venture financing from PayPal founder Peter Thiel in September 2004. Although the \$500,000 investment was a start, Zuckerberg and his associates had great ambitions for The Facebook.

September 2006, Facebook expanded once again. Now In anyone with a valid email address could sign up and populate their profile with their stats, and sign-up they did. Even after a bit of bad press with the introduction of the "News Feed" feature, which was labeled intrusive and viewed as a violation of privacy by many of its long-time users, membership continued to grow. In fact, between May 2006 and May 2007 Facebook traffic grew by an astonishing 89%. Facebook remained a restricted network until Zuckerberg declared in May 2007 that it will become the "social operating system for the Internet."

Previously, the Facebook platform was only for Facebook, but today users may combine all of their online activities under a single Facebook profile. Developers quickly started to build applications for all the popular sites and users started adding them in an effort streamline their virtual identities. Flickr, MySpace, iTunes, YouTube, del.ici.ous, and Digg had official apps, and users started creating unofficial apps for these sites as well. Plus there was a whole host of independent developers creating quizzes, games, friend organizers and a variety of profile customization apps like virtual gardens and profile picture sketches. Users could establish profiles for their pets on CatBook and

DogBook to network with their friends' pets, while Human Pets allowed users to become pets for other users. The next step for Facebook was direct advertising.

In August 2007 Facebook announced that it was looking to "translate its popularity into bigger profits" by offering advertisers direct access to their targeted demographic consumers. Indeed, Zuckerberg and his colleagues were well within their rights to profit on the phenomenon's popularity, and why not? What good is it to provide the service and collect all this data if it can't be utilized to enrich the company's shareholders? And if Facebook isn't a big Homeland Security database, as some have assumed, all they have is advertising.

As a Wal Street Journal article put it, "While the Web site had roughly 30.6 milion visitors in July, the company says it needs to do a beter job profiting from its huge user base." And through it all , Zuckerberg stil plays the role of the dotcom darling, presenting Facebook as a little independent start-up who is holding out against the big corporatebulies — like Viacom and Yahoo, despite its ties to Accel and Silicon Valey's corporate elite. (croft 2007)

Individual use Facebook for different reason and propose. For example, anxious individuals are more likely to use Facebook to connect with others online and feel emotionally connected to Facebook. They use Facebook to reduce their anxiousness by connecting with others online rather than attempting to connect with the same individuals in face-to-face settings (Clayton, Osborne, Miller, & Oberle, 2013). Students use Facebook for a variety of reasons such as educational purposes Roblyer et al. (2010) and social purposes (as cited in Kalpidou 2011; Quan-Haase & Young, 2010; Sheldon, 2008). (croft 2007)

Students use Facebook to create new and maintain old relationships, obtain information related to the social events that occur on campus and social college adjustment (Kalpidou et al., 2011). For example, college alumni could be created via Facebook, where by all current and former school members would be able to collaborate and keep in touch. They would be able to keep up with the current issues going on in the college and also the current events taking place.

Cheung, Chiu, and Lee (2011) illustrated that students used Facebook to create a social presence. This is further substantiated by Nadkarni and Hofmann (2012) who concluded that people use Facebook usage to fulfil two basic social needs: need to belong and need for self-presentation. (Croft 2007)

Ellison et al. (2007) found that students with low self-esteem benefit from using Facebook because they expand their social capital and total adjustment in college. When students get the exposure of communicating and getting to know more people and professionals via Facebook, they could break the barrier and accelerate their confidence and self-esteem. The principal social reason for students to use Facebook was to maintain relationships with existing acquaintances that were already part of their social network (Sheldon, 2008). (Croft 2007)

In another study, it was found that students primarily used Facebook to maintain previously established social capital, rather than developing new networks through online networking (Kalpidou et al., 2011). Younger students tended to use Facebook more frequently than older students to keep in touch with friends from high school or from their hometown (Pempek et al., 2009). Most social network site users primarily interact on these sites to support pre-existing social relationships. Croft, 2007)

We also use Facebook as an RSS reader for news, to log in to other websites, to share photos easily, we use it for the free video messaging, and because it offers a simple way of spreading awful opinions, share feelings and ideas (cited in Croft, 2007)

#### 7.2 Instagram

Instagram, which was created in 2010, is a mix of the words "instant camera" and "telegram". The photo-sharing software grew from one million monthly users to 100 million submitted images by July 2011 and ten million users by September of the same year. The company declared in April 2012 that it had reached the 30 million user mark. In the same month, Facebook noticed Instagram's growth and purchased it for \$1 billion, making it the company's third largest acquisition to date. Following the acquisition, it grew to 80 million monthly users, and by the end of 2013, it had nearly doubled to 150 million. (Mikaela Rakos 2014).

Instagram is a picture and video-sharing software that lets users to submit material and share their life with the rest of the world. Instagram's a photo-sharing platform has been distinctive in many ways since its inception. After taking a snapshot, the user may apply a filter to personalize the image and properly capture the moment. The purpose of the filters is to transform an amateur or mediocre mobile photo into an artistic and professional-looking image (cited in Mikaela Rakos, 2014)

The software is also designed to be used in real-time, allowing Instagram users to share their experiences with their followers as they happen. Instagram has made social

media sharing easier by providing users with a simple option to post a photo across several networks all from one app. Users may post photographs to social media sites such as Facebook, Twitter, Tumblr, Flickr, and Foursquare. Users may browse their followers' recent postings on the app's homepage, check the newsfeed for follower activity, comment on and like any public photographs, and tag followers in both comments and photos. Instagram users frequently use hashtags in their descriptions and comments.(Mikaela Rakos. 2014).

Instagram is also accessible on the web, but only with the viewing, commenting and liking functions; to upload photos, users must use Instagram's mobile app. Instagram's sudden rise in popularity may be attributed in part to Facebook's acquisition, however key measures taken by the business in 2013 also helped the app. In May of that year, Instagram added photo tagging and a new tab on a user's profile called "Photos of You," which contains a collection of all the pictures in which he or she has been tagged. Photo tagging also extended to brands, a business-friendly move that reportedly led to increased sales (as cited Mikaela Rakos, 2014).

In July 2013, Instagram made it easier to share posts by introducing links to embed images and videos, continuing on its journey to becoming more social. By simply copying and pasting an embed link into an article or on a website, users can exhibit Instagram content the way it was meant to be seen. This was a smart move for Instagram, as it allowed users to share content elsewhere and potentially drive traffic back to Instagram. Facebook began integrating "natural-looking advertisements" into the app in October 2013, because consumers were unfamiliar with advertisements. Facebook began with a small number of attractive, high-quality photographs and videos from a few companies. Within a month, this strategy had shown positive results, with 5% of advertisements resulting in user likes (cited in Mkaela Rakos 2014)

Instagram also added a private messaging feature at the end of 2013 that allows users to communicate private images and videos to one another. Before this, the only way to communicate was through likes and comments, which were totally public. The "Direct" messaging option now allows users to communicate content to up to 15 individuals confidentially. Users can write captions for the images they are sending and, after sending images, they can continue the chat underneath the photos (cited in Mikaela Rakos, 2014)

#### 7.3 Twitter

While the late 1990s saw the introduction of short text messages (SMS) that allowed users to transmit them from one mobile phone to another, Twitter may be referred to as the "SMS of the Internet". Simply, Twitter is a social media platform that allows users to send and receive 140-character messages known as "tweets". This service is particularly beneficial for users who want to microblog or provide brief status updates. As of 2012, there were over 500 million registered users on Twitter, with over 340 million tweets each day. It was founded in 2006 by Jack Dorsey (cited in Lunden, 2012 & O'Regan, 2015)

Ruby on Rails, a customized Web-application framework for the Ruby programming language, was used to create Twitter. Its user interface is flexible and allows easy integration with other internet services. Evan Williams and Biz Stone, who both worked at Google before leaving to start the podcasting company Odeo, created the service in 2006. Williams, who had previously built the famous Web writing tool Blogger, began experimenting with one of Odeo's side projects at the time, Twttr, a short messaging service (SMS). Williams bought Odeo and formed Obvious Corp. to further develop the product because he saw a future for it. (Adam Augustin. Britanica 2017)

In March 2007, the full version of Twitter debuted at the South by Southwest music festival in Austin, Texas, with engineer Jack Dorsey joining the management team. Thanks to an infusion of venture funding, Twitter, Inc. was formed the following month. Twitter has been essentially a free SMS with a social networking component since its start. As a result, it lacked the obvious revenue stream that can be seen on sites that make money from advertisements or membership fees. With a 1,300 percent increase in unique visits in 2009, it was clear that Twitter was more than just a passing phase. However, it was uncertain whether Twitter could achieve financial independence from its venture capital investors in a year that saw the social networking giant Facebook earn a profit for the first time. (as cited in Adam Augustin, Britanica, 2017).

Finally, Twitter announced "Promoted Tweets" --advertisements that show in search results--as its major revenue source in April 2010 (as cited in Adam Augustin, Britanica, 2017).

This section aimed to introduce social media and different platforms such as facebook, intagram, and twitter; their history and their use.

#### Section three: Emergence of Covid-19

Covid-19 is a dangerous new virus that emerged the whole world in 2020. It has caused the death of millions of people in a small period of time. The world had been put in quarantine for protection which affected people psychologically, and the world economically. Therefore, in this section we will talk about the emergence of Covid 19 in the world its origin and transmission, then how Covid 19 emerged in Algeria.

#### 8. Emergence of COVID 19 in the world

#### 8.1 Origins

The Chinese COVID-19 outbreak was declared a Public Health Emergency of International Concern by the WHO on January 30, 2020, posing a significant danger to nations with weak health systems. (Sohrabi, Alsafi, O'neill, Khan, Kerwan, Al-Jabir, & Agha, 2020)

The genetics of 2019-nCoV revealed that it was a fusion virus of SARS-CoV and HIV origins. The two virus types had separate and distant genealogy, and their recombinant had never emerged in a natural context due to the distinct space and time of their existence. As a result, 2019-nCoV might be a result of human genetic engineering rather than a natural product. (Law, P. K. 2020).

SARS-CoV-2, the agent of COVID-19, was named after SARS-CoV (now known as SARS-CoV-1 by some), a genetically identical virus that caused a deadly near-pandemic in 2002–2003. SARS-CoV-2 and its genetic sequences had never been discovered in human or animal viruses before 2019 (cited in Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020).

The new virus was first discovered as a new Coronavirus and it was named 2019-nCoV; it was then called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the sickness it causes is now known as Coronavirus Disease-2019 (COVID-19) by the World Health Organization. (Keni, Alexander, Nayak, Mudgal, & Nandakumar, (2020).

The new virus was first discovered as a novel Coronavirus and given the designation 2019-nCoV; it was then renamed severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (13), and the condition it causes is now known as Coronavirus Disease-2019 (COVID-19) by the World Health Organization. The virus was said to have started spreading in the Wuhan region's Huanan seafood wholesale market. It's possible that a virus-infected animal was brought into or sold at the market, allowing

the infection to spread across the crowded area (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020).

One of the first assertions was reported in the Journal of Medical Virology (14) in which snakes were identified as a potential host. A second hypothesis was that SARS-CoV-2 may be found in the wild in pangolins; however the most likely scenario is that the virus began in bats. As more data and expertise accumulate, scientists are now concluding that the virus, like earlier respiratory viruses, had a natural genesis in bats (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020).

SARS and MERS were similarly thought to have originated in bats. The dromedary camel is an intermediate host in the MERS case. For a long time, bats have been known to carry coronaviruses. With increased selection and ecological pressure due to human activities, the virus made the leap from animal to man, much as it did with avian flu, SARS, MERS, and maybe even HIV. Humans have been encroaching on forests in increasing numbers, and this is true over most of China, as well as in Africa. Such pandemic impacts are now more prevalent than ever, because of the increasing of ecological pressure that has been brought on by climate change (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020)

The next illness X will very certainly have a similar genesis. Due to the Ebola virus pandemic, we have learnt the necessity of identifying the source organism. Viruses are genetically unstable creatures that are continually changing due to genetic drift or shift. It's impossible to say when a cross-species leap will occur, or when an apparently innocuous viral variation may evolve into a lethal strain. The Reston virus, which emerged in Reston, Virginia, USA, is an unsettling reminder of this possibility. The identification of the original host aids in the prevention of future outbreaks as well as the study of viral transmission mechanisms. The zoonotic origin of the virus will remain speculative until it is isolated from a wild animal host, in this instance primarily bats. It should also be mentioned that, according to a group in China, the virus has gained many mutations, indicating that there are more than two strains of the virus, which might have impacted its virulence (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020).

However, this assertion has yet to be verified, and many experts have contended that it is false; data to support this claim is not yet available. A similar discovery was made separately in Italy and India, where two strains were discovered. Similar investigations conducted throughout the world should be used to cross-verify these

findings. If this result is correct, it might explain why certain countries are more affected than others (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020).

#### 8.2 The transmission way of COVID 19

When COVID-19 originally spread, it appeared that the virus was confined to China and the cruise ship "Diamond Princess," which served as the infection's major centers. (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020).

COVID-19 has been confirmed in 90,870 cases since about March 3, 2020, with 80,304 cases confined in China. The Hubei Province confirmed 67,217 cases, with the others detected in 34 provinces, regions, and cities across China. However 10,566 other cases were identified in 72 different countries. Among them 166 cases were fatal according to (Sohrabi, Alsafi, O'neill, Khan, Kerwan, Al-Jabir, & Agha. 2020).

However, as of April 2020, the virus has spread to over 210 nations and territories, within Europe, the United States, and Iran establishing a new viral cluster. The United States has the most proven COVID-19 cases, but India and China, despite having some of the world's thickest populations, have managed to keep the infection rate low by establishing a total lockdown with plans in place to deal with confirmed cases. (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020).

Similarly, the United Kingdom has managed to keep the graph's low slope by introducing comparable restrictions, but they were not fully implemented. According to reports, the presence of multiple strains or strands of the virus may have influenced the virus's infection rate control. Droplet transmission is how the illness spreads. Globally, the total number of infected people is estimated to reach over 3 million as of April 2020, with 200,000 fatalities and more than 1 million recoveries. Based on existing statistics, the virus has a mortality rate of about 2% . (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020).

However, according to a recent research from the Centers for Disease Control and Prevention in Atlanta, Georgia, the R0 might be as high as 5.7. Individuals likely to be infected by the virus in both China and India correspond to the age groupings of 20–50 years, according to statistics available from both countries. This age bracket makes up the majority of the working class in each of these nations, making exposure more likely. In comparison to their immediate neighbors, Germany and Singapore are excellent examples of nations with a high number of illnesses but low deaths. Singapore was one of the few countries to establish a thorough plan of action following the last SARS outbreak in order

to cope with a similar crisis in the future, and this worked to their advantage during this outbreak. Both countries took swift action after the outbreak began, with Singapore banning Chinese travelers and implementing screening and quarantine measures at a time when the WHO recommended none. They ordered the elderly and the vulnerable to strictly stay at home, and they ensured that lifesaving equipment and large-scale testing facilities were available immediately. (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020).

According to (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020) Germany adopted similar steps, scaling up testing capacity early and ensuring that everyone was given an equal chance to be examined. This meant that young, old, and at-risk persons were all tested, assuring positive findings early in the disease's course and, like in Singapore, that most cases were mild, resulting in a reduced mortality rate. It allowed contaminated people to be discovered and isolated before they showed any signs of illness

Multiple laboratories were used for testing, decreasing the burden and allowing for huge scale, something that countries like the United States accomplished late and India limited to a few government and commercial labs. To further restrict the spread, the German government outlawed big meetings and encouraged social separation, but, unlike India and the United States, this was done much later. Another country that has managed to control the spread and transmission of the virus is South Korea. South Korea and the USA both reported their first COVID-19 cases on the same day; however, the US administration downplayed the risks of the disease, unlike South Korean officials, who constantly informed their citizens about the developments of the disease using the media and a centralized messaging system. They also used the Trace, Test, and Treat procedure to quickly identify and isolate patients, but the United States limited this to patients with serious illness and only subsequently expanded it, as did several European nations and India. In contrast to the United States, South Korea provides universal healthcare, which includes free diagnostic testing (cited in Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020)

The main mode of transmission of 2019-nCoV is human to human. As of now, animal-to-human transfer has not yet been confirmed. Asymptomatic carriers of the virus are at major risk of being super-infectors with this disease, as all those infected may not develop the disease. It's a worldwide problem, with the Indian government expressing concern about how to identify and contain asymptomatic carriers, who might account for

up to 80% of people affected. Because existing resources are focused on studying hospitalized patients who are exhibiting symptoms. Human-to-human transmission is mostly transmitted via droplets, which are produced when coughing, talking, or sneezing and breathed by a healthy person. They can also be transferred to a person indirectly when they land on surfaces touched by a healthy person who then touches their nose, mouth, or eyes, allowing the virus to enter the body. The virus's transmission via aerosol has yet to be verified. Since the SARS-CoV-2 has been identified in patient feces, stool-based transmission via the fecal-oral pathway may potentially be conceivable. If adequate sanitation and personal hygiene needs are not addressed, some COVID-19 patients develop diarrhea, which can constitute a primary route of transmission. There is presently no indication that the illness may be transmitted vertically within the uterus in pregnant women. More research is needed to see if temperature had a role in the containment of the illness in nations like India, Singapore, China, and Israel, which are much warmer than the United Kingdom, the United States, and Canada. Ideally, a warm climate should prevent the virus from surviving for longer periods of time on surfaces, reducing transmissibility (Keni, Alexander, Nayak, Mudgal, & Nandakumar, 2020)

# 8.3 The emergence of COVID 19 in Algeria

The first case in Algeria was reported on 25 February 2020. Day after day the confirmed contaminations increased. Since march 2020 he Algerian government took several measures to stop and minimize the transmission and the spreading of COVID-19. One of these measures is isolate the population to reduce contact between people by announcing a general quarantine in order to control the source of infection and minimize the spread of this pandemic.( Bentout, Chekroun, & Kuniya .2020).

However, as in the border country of Morocco, the first cases came all from Europe (Especially from France, Italy and Spain). Except the case of an Italian citizen reported COVID-19 positive on February 25 in the department of Ouargla (actually with 115 cases), the true starting point of the epidemic is reported on March 1st of two national citizens who came from France in the department of Blida which became the epicenter of the epidemic (Lounis, Electron, Gen Med. 2020).

Since May 1st, all the 48 departments of Algeria were affected with a number varying from 2 to 865 of positive cases. Geographically, the highest number of cases is reported in the north of Algeria, especially in the department of Blida (865 cases) and its border departments like Algiers (563 cases), Ain Defla (237 cases), Tipaza (188 cases)

and Medea (121). With 286 positive cases, the Department of Oran in the North western is considered as the third most affected department. On the other hand, another outbreak of the disease is observed in the last days in some departments of the north eastern like Setif (243 cases), Constantine (221 cases), Bordj Bou Arreridj (167 cases) and Bejaia (151 cases). The number of positive cases in the department of Ouargla (115 cases) in the South (where the first case was reported) starts also to become alarming. With the exception of a few examples of secondary contamination, mostly in the department of Blida, nearly all cases in all departments are considered primary contamination of European origin (Cited in Lounis, Electron, Gen Med, 2020).

Algeria has registered a total of 4997 COVID-19 positive cases since the first case was reported on February 25. It is Africa's fourth most afflicted country, after Egypt (7588), South Africa (7572), and Morocco (5382), and the world's 55th most affected country. In terms of age and gender of positive patients, research reveals that individuals between the ages of 25 and 49 (38.5 percent) and those over the age of 60 (34.8 percent) are the most afflicted groups, with males (56.5 percent) being more impacted than women. (Cited in Lounis, Electron, Gen Med, 2020).

In 2020 Algeria reached the 30<sup>th</sup> highest value of death in the world and the first in Africa . (Algerian Ministry of Health.. 2020).

# 8.4 Mortality and lethality rate

In Algeria, 476 people have died as a result of COVID-19. This is the greatest number in Africa and the 30th highest worldwide. When compared to the entire population, this figure equals around 11 deaths / million. This rate is greater than in other African nations such as South Africa (2 deaths per million), Egypt (4 deaths per million), and Morocco (5 deaths per million). It should be noted that 65 percent of the total number of people who died were above the age of 65. Regarding fatality, the estimated rate is about 9.5%. This rate is one of the highest in the world after the most affected countries like Spain (11.7%), Italy (13.8%), France (15 %) and UK (15 %). However, this rate is to take with care for different reasons. This rate seems to decrease in time with the increasing of the number of realized tests (Lounis, Electron, Gen Med. 2020).

#### 8.5 Recovery

There have been 2197 people who have recovered from this disease out of the total number of positive cases. This figure is greater than those recorded in Morocco (1969) and Egypt (1730), but it is lower than the South African figure of 2746 recovered patients. Since March 23, Algeria, like many other nations across the world, has adopted the Chloroquine (Hydroxychloroquine)/Azithromycin regimen for treating COVID-19 patients. The therapy was first suggested for "certain instances," however it was expanded to include all COVID-19 positive individuals as of April 6.( Lounis, Electron, Gen Med. 2020).

The Food and Drug Administration (FDA) has approved the use of remdesivir as an emergency treatment for COVID-19. China has created a "Diagnosis and Treatment Protocol for COVID-19" after gaining valuable expertise in the treatment procedure.

The use of -interferon, ribavirin combined with -interferon, lopinavir/ritonavir, chloroquine phosphate, and arbidol is indicated in the prescription. (Peng, Tao, Satyanarayanan, S. K., Jin, K., & Su, H. 2021).

#### **8.6 Prevention**

The Algerian government has been gradually implementing a range of preventive measures, such the restriction of international travels, public gathering restrictions, isolation and quarantine, preventing campaigns, and lockdown, since March 9, after the the confirmation of 20 cases of contamination. (Lounis, M. p2 2020)

Shortly after the first cases were discovered, the Algerian government began implementing a series of preventative measures aimed at increasing social distance and limiting the virus's spread. These measures include the cancellation of all travel and isolation of repatriated citizens, the restriction of all public gatherings through the closure of schools, universities, and all educational institutions, mosques and cult places, and the suspension of collective prayers, the suspension of all private and public common transportation (Lounis .M. Electron J Gen Med. 2020)

In this section we introduced how covid19 appeared iin the world,how it spread till it emerged in algeria. We mentioned the prevention,the way of transmission the probable treatments and cures that had been proposed.

# **Conclusion**

This chapter dealt with study variables in details .First, it sheds the light on lexicology and lexical studies and socio-cultural analysis. Second, it defines social media, its use and its importance in expressing ideas, opinion and feelings. Third, in the last section the chapter deals with the emergence of covid-19 in the world and in Algeria. The next chapter is devoted to the methodology of the study and to analyze and discuss the finding of the study In addition to suggestions and recommendations.

# Chapter Two: Research findings, Discussion of Results and Recommendations

# Introduction

This chapter is methodological. It outlines the research design used to investigate the present study. This chapter contains four different sections is named procedures of the data collection.

The first section is the research methodology; it describes the method and the instruments used in the collection of research data in addition to the setting and the population.

The second section is the procedure of data analysis in which we present detailed information about the findings and the procedure of the findings analysis.

The third section is the discussion of the results and the findings and finally the fourth section which contains recommendations for further studies.

# **Section one: Research Methodology**

This research explores and analyzes the COVID-9 lexicon that Algerian media users use through different social media during the period of this pandemic. In this section we will introduce the main aspects and main points that elaborate the procedures of the research data collection, the setting the population and the instruments used.

#### 1. Research variables

This study focuses on the socio-cultural analysis of COVID19 lexicon used by Algerian social media users. So this research contains three main variables which are social media, COVID19 and socio-cultural analysis.

COVID 19 is a virus that appeared since 2020 and affected the whole world. This virus frightened the population and caused the death of millions of people in the world. The entire globe was put in quarantine and isolation for protection. This pandemic has too many lexica that had been used from its emergence till now.

Social media, on the other side, is the various social websites that we use to interact with other people from the whole world. It is a structure that people use to express and share feelings ideas and opinions. Since the appearance of the COVID 19 pandemic and the isolation and quarantine we have been put in, social media has been the only way to exchange sentiments and feelings toward this situation, and most importantly to have and to keep the social relations at least virtually since physically it was impossible.

Culture is communicated through language. They are strongly related and can't be separated since we recognize someone's culture through his language. Grammatical development is influenced by a simplified speech environment; cultural values associated with certain codes have an influence on their learning. Furthermore, the acquisition of certain grammatical constructions is strongly influenced by cultural systems of belief, knowledge, and social order.

# 2. Research Corpus and Population:

This research work is interested in elaborating from the socio-cultural perspective the Covid-19 related lexicon employed by Algerian social media users. Therefore, the population of our study is based on the Algerian users of the three foremost platforms of social media; namely: Facebook, Intagram and Twitter.

We go through the analysis of different social classes for each platform (mainly government, media and public) which makes a total of 77 accounts. In particular, through Twitter we analyze 21 accounts from three categories; 7 Algerian governmental users (like politicians and political organizations such as the Ministry of Health of Algeria, the Ministry of education and the Algerian President); the second category was Algerian public users we analyzed 7 different accounts; and finally, 7 Algerian media users (journalists' accounts and journalistic pages like Anahar, Albiled and other media accounts). we analyzed posts, comments, tweets and publications.

For Instagram, we also analyzed 21 different accounts. A variety of Algerian public users' publications and comments, 7 Algerian media users (media pages and reporters accounts such as Ryad Benamor and Aljazairia one and many others), and finally the third category was the Algerian celebrities users in which we analyzed 7 celebrity's accounts like Souhila Benlachheb, Bouchra Oukbi and other celebrities.

Finally for Facebook users, we used 28 accounts that belong to four categories of users. We analyze 7 governmental pages such as Unicef Algeria, 7 media users which where media publications of journalists and journalistic pages such as Anahar, 7 Algerian celebrity users their posts and comments and finally 7 public users accounts.

# 3. Time and Setting

This research bases on specific set of time in social media. Corona virus has emerged in Wuhan (China) since December 8<sup>th</sup>, 2019; however, it has widespread in Algeria for the first time in February, 2020.

This study focuses on the analysis of social media publication in period of March 2020 until March 2021 in order to follow the lexicon through the different stages of Corona's widespread (from mild to severe). We analyze publications, tweets, posts, hash-tags and comments of Algerian media users in three different platforms which are Facebook, Instagram and Twitter.

#### 4. The Research Methodology

The aim of this research is to explore covid-19 related lexicon that had been used on Algerian social media and elaborate the role that Algerian social differences and culture have on the lexicon's use. Therefore, this research study follows the procedures of exploratory design which bases on quantitative method.

The data is collected through the observation and exploration of 77 Algerian accounts of different classes on three social media platforms: Facebook, Instagram and Twitter. We explore tweets, posts, hash-tags, publications and comments of governmental, media, celebrities and public users.

# 5. Data Collection Tools and procedures

During the investigation, we have used some tools in order to collect our data. We used three social platforms that are mostly used by population. First we used Twitter; which is used more by media and governmental category we analyzed tweets comments and posts. The second platform is Facebook, the most used social media in the whole world. It is mostly used by public users and media users; we analyzed publications and coments of the users. Finally, the third platform is Instagram. This latter is mostly used by celebrities, public users and media .we also analyzed the posts comments and publications.

In this study data is collected through the observation and exploration of 77 Algerian accounts of different classes on three social media platforms: Facebook, Instagram and Twitter. We explored tweets, posts, hash-tags, publications and comments of governmental, media, celebrities and public users.

Throughout our study, we collected the different Covid-19 lexica that these users used in all their posts, comments and tweets from a period of March 2020 until March 2021; then we divide them into categories: nouns, adjectives and hash-tags (that include both nouns and verbs). We counted the frequency and percentage of each category and then for each lexicon in each category.

The purpose of this section is to describe the research design and methodology used for our study though the description of the tools used for collecting data, as well as the explanation of the procedures used to analyze them. In addition this chapter provides information about the population and the setting involved in the study.

# Section two: Results and Discussion of the Findings

This study investigates the sociocultural analysis of covid 19 lexicon used through social media by Algerian media users.

In this section, we present the various findings and outcomes which are explored in depth. At this level, data collected from various categories of Algerian media users are examined using qualitative descriptive methods (frequencies and percentages). Overall, all of the stated outcomes are evaluated in order to reach the aim of the study and to get a better understanding of the phenomenon under study.

# 6. Analysis of Algerian Users' Tweets

Twitter is one of the most used social media websites. It is mostly used by government and media users to make formal and official announcements, this platform It is also used by public to raise htag trends, to get informed about politics health and society since most of the users are governmental or media users.

Therefore, in this part we present the data collected from Algerian users' tweets. The data are divided into three different categories which are: government, public users and media. In each category we provide the different covid-19 lexicon used by each category.

#### **6.1 Government Twitter users**

We analyzed and classified the covid19 lexicon used in government tweets from March 2020 till March 2021. We mainly present different nouns, adjectives and hash-tags that refer to covid-19.

Table 1 : descriptive statistics of lexicon categories in Algerian governmental tweeter users

Lexicon categories	Frequency	Percentage %
Nouns	208	56.06%
Adjectives	5	1.34%
Hash-tags (including verbs and nouns)	158	42.58%
Total	371	100%.

According to the above the results show that from March 2020 till March 2021, 56.06% of the lexica used by government on Twitter are nouns, then comes hash-tags with 42.58% and finally adjectives with a minority of 1.34%

# 6.1.1 nouns referring to Covid-19 in Algerian government tweet

Table 2: nouns referring to Covid-19 in Algerian government tweets

Noun	Frequency	percentage
Covid19 #pandemic	28	13.46%
#Corona	1	0.48%
#covid19 #pandemic	2	0.96%
#Covid19	41	19.71%
#virusCovid19 #Coronaviruscoronavirus	56	26.92%
#pandemic	30	14.42%
#coronavirus	1	0.48%
#covid19 #pandemic	20	9.61%
#corona	11	5.28%
#pandemicvirus #pandemic	18	8.65%
Total	208	100%

The above table demonstrates the different nouns that we have found in the government tweets. As we may see, coronavirus is the noun the most used with 26.92%, then it is followed by covid 19 with 19.71%, coronavirus pandemic 14.42%, covid 19 pandemic with a percentage of 13.46%, corona pandemic with 9.61%, pandemic 8.65%; than comes virus with 5.28%, finally the ones who had been used the less covid 19 virus with 0.96, followed by corona covid 19 pandemic and coronavirus covid 19 pandemic with the same percentage of 0.48%.

# 6.1.2 Adjectives that denote Covid-19 in Algerian governmental tweets

Table 3: nouns referring to Covid-19 in Algerian government tweets

Adjective	Frequency	Percentage
Deadly	3	60%
Scary	2	40%
Dangerous	0	0%
Fearful	0	0%
Total	5	100%

This table shows the few adjectives used on tweeter by government. The most used adjective is deadly with a percentage of 60%, and scary with 40%

# 6.1.3 Hash-tags and verbs representing covid-19 in Algerian governmental tweets

We tried to collect the different hash-tags used by Algerian governmental tweets. Since these hash-tags are formed by covid-19 lexicon or covid-19 related verbs, wethought that it is important to include them in our analysis. The following table represents the descriptive statistics of these hash-tags.

Table 4: Hash-tags representing covid-19 in Algerian governmental tweets

Hash-Tags	Frequency	Percentage
#covid19	35	22.15%
#coronavirus	34	21.51%
#virus	2	1.26%
#corona_pandemic	2	1.26%
#corona	24	15.18%
#stay_home	8	5.06%
#protect_your_family	4	2.53%
#your_mask_is_your_safety	4	2.53%
#wash_your_hands	2	1.26%
#our_conscious _protect_ us	29	18.35%
#together_we_can	8	5.06%
#our_health_is_our_responsibility	2	1.26%
# prevention	2	1.26%
#quarentine	2	1.26%
Total	158	100%

According to the table above we see that the Hash-tags that had been used the most by the government are #covid19 with 22.15%, followed with a close pcentage by #coronavirus 21.51%, then #our\_conscious \_protect us with 18.35%, than comes corona with 15.18%; and xith the same percentage comes #stay home and #togethe\_we\_can with 5.06%, just behind come with the same result #protect\_your\_family and #your\_mask\_is\_your\_safety with 2.53% and finally at the same level #our\_helath\_is our\_responsability; #wash\_your\_hands, #prevention, #quarentine, #virus and #corona\_pandemic with a percentage of 1.26%.

# **6.2** Algerian Public Twitter users

We analyzed and classified the covid19 lexicon used by public Twitter users from March 2020 till March 2021. The results are shown in the following tables

Table 5 : descriptive statistics of lexicon categories in Algerian public tweeter users

Items	Frequency	Percentage
Nouns	89	18.50%
Adjectives	22	4.57%
Hash-tags (including verbs and nouns)	370	76.92%
Total	481	100%

According to the table above, the results show that 76.92% of the lexicon used are in form of hash-tags, Followed by the nouns with 18.50% and finally with a small percentage of adjectives with 4.57% from March 2020 till March 2021.

# 6.2.1 Nouns used by Algerian Public user in Twitter

Table 6: Nouns used by Public user in Twitter

Nouns	Frequency	Percentage
Coronavirus	33	37.07%
Covid19dz	3	3.37%
Covid19	22	24.71%
Covid	6	6.74%
-pandemic	19	21.34%
-epidemic	6	6.74%
Total	89	100

The result above shows that the most lexicon used with 37.07% is coronavirus; than with a close results come covid19 with 24.71% and then pandemic and 21.34; with 6.74% comes epidemic and virus.

# 6.2.2 Adjectives used by Algerian Public users of Twitter

Table 7: Adjectives used by Public users of Twitter

Adjectives	Frequency	Percentage
deadly	6	27.27%
-scary	8	36.36%
-dangerous	3	13.63%
fearful	5	22.72%
Total	22	100%

According to the table we remark that the adjective the most used is scary with 36.36% then in second deadly with 27.27% in third fearful with 22.72% and finally dangerous with 13.69%.

# 6.2.3 Hash-tags used by Algerian public users of Twitter

Table 8: Hash-tags used by Algerian public users of Twitter

Hash-Tags	Frequency	Percentage
#Covid19	157	42.43%
#Coronavirus	63	17.02%
#Covid	8	2.16%
#Coviddz	4	1.08%
#Coronavirusdz	3	0.81%
#Covid19dz	87	23.51%
#Coronavirusalgerie		
#stay home	12	3.24%
#Quarentine	10	2.70%
#Vaccine	7	1.81%
#Coid19	18	4.86%
	1	0.27%
Total	370	100

According to the results above the hash-tag #covid19 had been used with an average of 42.34%, #covid19dz 23.51%, #coronavirus 17.02%, #vaccin 4.86%,

#coronavirusalgerie 3.24%, #stay\_home 2.70%, #covid 2.16%, #quarentine 1.81%, #coviddz 1.08%, #coronavirusdz 0.81%, and #coid19 0.27%.

# 6.3 Covid-19 lexicon in Algerian Media users through Twitter

We analyzed and classified the covid 9 lexicon used in media tweets from March 2020 till March 2021.the results are demonstrated in the following tables and figures Table 9: Covid-19 lexicon classification in media tweets

Lexicon categories	Frequency	Percentage %
-Nouns	660	53.05%
-Adjectives	26	2.09%
-Hash-tags (verbs and nouns)	558	44.85%
Total	1244	100

According to the table above, we can see that media Twitter users have used with a close majority nouns and hash-tags. Nouns have been used with 53.05% then come just after hash-tags with 44.58%. Finally, adjectives have been used with a percentage of 2.09% from March 2020 till March 2021.

# 6.3.1 Nouns representing covid-19 in Algerian media related tweets

Table 10: Nouns representing covid-19 in Algerian media related tweets

Nouns	Frequency	Percentage
-Covid19	190	28.78%
-Coronavirus	150	22.72%
-Corona	140	21.21%
-Coronavirus pandemic	50	7.57%
-Corona covid19 pandemic	15	2.27%
-covid19 virus	25	3.78%
-virus	50	7.57%
-epidemic	10	1.51%
-pandemic	30	4.54%
Total	660	100

Through the table we see that the nouns the most used by Algerian media users on tweets are in order; covid 19 with 28.78%, coronavirus with 22.72%, corona 21.21%, Virus and corona pandemic with aquivalence 7.57%, pandemic with 4.54%, covid19 virus 3.78%, corona covid 19 pandemic 2.27% and finally epidemic with 1.61%.

# 6.3.2 Adjectives used in Algerian Media tweets to denote Covid-19

Table 11: Adjectives used in Algerian Media tweets to denote Covid-19

Adjectives	Frequency	Percentage
-deadly	10	38.46%
-scary	12	46.15%
-dangerous	1	3.84%
-fearful	3	11.53%
Total	26	100

The table above shows that media users used the adjective scary 46.15%, deadly 38.46%, fearful 11.53% and finally dangerous 3.84%.

# 6.3.3 Hash-tags referring to Covid-19 in Algerian Twitter media users

Table 12: Hash-tags referring to Covid-19 in Algerian Twitter media users

Hash-Tags	Frequency	Percentage
l#covid19	198	35.48%
l#coronavirus	90	16.12%
l#covid	100	17.92%
l#coronadz	50	8.96%
l#covid19dz	25	4.48%
l#stay home	70	12.54%
1#Quarentine	25	4.48%
Total	558	100%

We see through the table abouve that different htags had been used. The most repeated hash-tag is #covid19 with 35.48%, and then #covid with 17.92%, just behind it comes #coronavirus with 16.12%, #stay\_home 12.54%, #coronadz with 8.96%, and finally with the same percentage of 4.48% come #covid19dz, and #quarentine.

# 7. Analysis of Covid-19 related lexicon in Algerian Instagram Feeds

Instagram is software a social media platform in which users share videos pictures of their own and share their life with the rest of the world. It is a platform used mostly by celebrities and public users.

In this part we show the data collected from Instagram Algerian users' profiles based on three different categories which are celebrities, public users and media. We analyzed the different covid19 related lexicon used by each category.

# 7.1 Celebrity Users

We analyzed and classified the covid19 lexicon used in celebrities' posts from March 2020 till March 2021.

Table 13 : COVID19 lexicon classification used by Algerian celebrities through
Instagram

Lexicon classification	Frequency	Percentage
-Nouns	49	25.65%
-Adjectives	23	12.04%
-Hash-tags	119	62.30%
Total	191	100

According to the tables above the results show that the hash-tags had been used with a majority of 62.30% by celebrities in their posts, and then come nouns with 25.65% and adjectives with 12.04% from March 2020 till March 2021.

# 7.1.1 Covid-19 related nouns in Algerian celebrities Posts

Table 14: Covid-19 related nouns in Algerian celebrities Posts

Nouns	Frequency	Percentage
-Corona	7	14.28%
-Corona pandemic	1	2.04%
-Covid19	3	6.12%
-coronavirus	7	14.28%
-Infection	2	4.08%
-Disease	3	6.12%
-Coronavirus covid19	2	4.08%
pandemic	13	26.53%
-virus	11	22.44%
-pandemic		
Total	49	100

The result in the table above shows that the noun virus had been used mostly with 26.53%, just after come pandemic 22.44%, with the same result we have corona and

coronavirus with 14.28%, covid19 and disease with 6.12%, infection and coronavirus covid 19 pandemic with a percentage of 4.08%, finally corona pandemic with 2.04%.

# 7.1.2 Covid-19 related adjectives in Algerian celebrities' posts

Table 15: Covid-19 related adjectives in Algerian celebrities Posts

Adjectives	Frequency	Percentage
-deadly	3	13.04%
-scary	6	26.08%
-dangerous	9	39.13%
-fearful	5	21.73%
Total	23	100

Through the table we see that the adjective they used the most is dangerous with a percentage of 39.13%, than comes behind scary 26.08%, fearful with 21.73%, finally deadly with 13.04%.

# 7.1.3 Covid-19 related hash-tags and verbs in Algerian celebrities accounts

Table 16 : Covid-19 related hash-tags and verbs in Algerian celebrities' accounts

Hash-tags	Frequency	Percentage
l#Covid19	20	16.80%
l#Coronavirus	24	20.16%
l#Corona	14	11.76%
l#Stayhome	51	42.85%
l#save lives	1	0.84%
l#Stay safe	5	4.20%
l#optimism	3	2.52%
l#Quarentine	1	0.84%
Total	119	100

The table above the Hash-tag that has the biggest percentage is #stay\_home with 42.85%, in the second place we have #coronavirus with 20.16%, just after come #covid19 with 16.80%, #corona 11.76%, #stay\_safe 4.20%, #optimism 2.52%, finally with the same percentage #stay\_alive and #quarentine with 0.84%.

# 7.2 Instagram Public users

We analyzed and classified the covid-19 related lexica used in Instagram by public users from March 2020 till March 2021. Wee divided the lexica into three major categories including: nouns, adjectives and Hash-tags (that include both verbs and nouns)

Table 17: covid-19 related lexica classification used by public Instagram users

Items	Frequency	Percentage
Nouns	22	11.28%
Adjectives	44	22.56%
Hash-tags	129	66.15%
Total	195	100%

The table above shows that public users on Instagram used Hash-tags with a percentage of 66.15%, however adjectives had been used with 22.56% and finally nouns with 11.28%, from March 2020 till March 2021.

# 7.2.1 COVID 19 related nouns in Algerian Instagram public users

Table 18: Nouns denoting Covid-19 in Algerian Instgram Public users

Nouns	Frequency	Percentage
Covid	10	45.45%
Coronavirus	8	36.36%
-virus	1	4.54%
-pandemic	3	13.63%
Total	22	100

From the table above we deduce that the noun COVID is the most lexicon used with 45.45%, then comes coronavirus with 36.36%, pandemic with 13.63% and finally virus with 4.54%.

# 7.2.2 COVID 19 related adjectives in Instagram public users' posts:

Table 19 : Adjectives denoting covid-19 in Algerian Instagram posts and comments

Adjectives	Frequency	Percentage
-deadly	9	20.45%
-scary	13	29.54%
-dangerous	12	27.27
-fearful	10	2272%
Total	44	100%

The results above show that Algerian Instagram public users used the adjective scary with a percentage of 29.54%, dangerous with 27.27%, fearful with 22.72%, and finally deadly with 20.45%.

# 7.2.3 Hash-tags representing Covid-19 lexicon in public social media accounts

Table 20 : Hash-tags representing Covid-19 lexicon in public social media accounts

Hash-tags	Frequency	Percentage
l#Corona	12	9.30%
l#Covid19	36	27.90%
l#Coronavirus	12	9.30%
l#Covid	17	13.17
l#Coviddz	27	20.93%
l#coronavirusalgerie	5	3.87%
l#Coronadz	16	12.40%
l#Covid algerie	2	1.55%
l#Pandemic	1	0.77%
l#Virus	1	0.77%
l#Stay home	10	7.75%
l#Quarentine	9	6.97%
l#Be_safe	1	0.77%
l#Against covid19	1	0.77%
l#Together we can	1	0.77%
Total	129	100%

According to the table above the hash-tag #covid19 had been used with a percentage of 27.90%, #coviddz 20.93%, #covid 13.17%, then come with an equal pourcentage of 9.30%, #corona and #coronavirus, after that come #stay\_home with 7.75%, #quarentine with 6.97, #coronavirus\_algerie with 3.87%, #covid\_algerie with 1.55%, finally with the same percentage of 0.77% we have #together\_we\_can, #against\_covid19, #be\_safe, #pandemic and #virus.

#### 7.3 Instagram Media users

We analyzed and classified the covid-19 related lexica used in media posts on Instagram from March 2020 till March 2021. The following section describes statistically the different words denoting Covid 19 at three different levels: nouns, adjectives and hash-tags (composed of verbs and nouns).

Table 21: Covid-19 related lexica's classification of media Instagram users

Categories	Frequency	Percentage
-Nouns	83	25.96%
-adjectives	34	10.52%
-hash-tags	206	63.77%
Total	323	100%

Through the tables above we can see that most covid19 lexicon used by media users are hash-tags with a percentage of 63.77%%, then come nouns with 25.96 % and finally adjectives with 10.52 %.

# 7.3.1 COVID 19 related nouns in Instagram media users:

Table 22: Nouns denoting covid-19 in Instagram media users' posts

Nouns	Frequency	Percentage
-Covid	10	12.04%
-Corona	8	9.63%
-Coronavirus	20	24.09%
-Cov19	2	2.40%
-Covid19	30	36.14%
-virus	8	9.63%
-pandemic	5	6.02%
Total	83	100%

According to the table above we see that the noun covid19 had been used with a percentage of 36.14%, coronavirus with 24.09%, covid with 12.04%, corona and virus with 9.63%, pandemic with 6.02%, and cov19 with 2.40%.

# 7.3.2 Covid19 related Adjectives in Intagram media posts

Table 23: Adjectives denoting covid-19 in Instagram media users' posts

Adjectives	Frequency	Percentage
- deadly	12	35.29%
-scary	15	44.11%
-dangerous	5	14.70%
-fearful	2	5.88%
Total	34	100%

According to the table above the adjective scary had been used with a percentage of 44.11%, deadly with 35.29%, dangerous with 14.70% and fearful with 5.88%.

# 7.3.3 COVID 19 related Hash-tags

Table 24: Hash-tags denoting covid-19 in Instagram media users' posts

Hash-tags	Frequency	Percentage
l#Corona	45	21.84%
l#Coronavirus	65	31.55%
1#Covid19	50	24.27%
l#Stay home	28	13.59%
l#Stay safe	5	2.42%
l#Together we can	3	1.45%
l#quarentine	10	4.85%
Total	206	100%

The results in the table above show that the hash-tag Instagram media users used the most is #coronavirus with 31.55%, it is followed by #covid19 with 24.27%, #corona with 21.84%, #stay\_home with 13.59%, #quarantine with 4.85%, #stay\_safe with 2.42% and finally #together\_we\_can with 1.45%.

#### 8. Facebook Results

Facebook is social networking website used by almost the population of the entire world. It is a platform where people share pictures, videos, information, opinion, feelings about all what they want. It is used by public but also by media and government. In this part we show the data collected from Facebook Algerian users based on three different categories which are government, public users and media. We analyzed the different covid19 lexicon used by each category.

#### 8.1 Facebook Public users

We analyzed and classified the covid-19 related lexicon used in Facebook publications by public users from March 2020 till March 2021. The results are elaborated in the following sections:

Table 25: classification of covid19 lexicon used by Facebook public users

Items	Frequency	Percentage
-Nouns	263	69.21%
-Adjectives	31	8.15%
-Hash-tags	86	22.63%
Total	380	100%

According to the above, the results show that 69.21 % of covid-19 related lexicons used by public users are nouns, 22.63 % are hash-tags and finally 8.15% are adjectives during the period of March 2020 until March 2021.

# 8.1.1 COVID 19 related nouns on Facebook public users' publications:

Table 26: Nouns representing Covid-19 in Facebook Public users' publications

Nouns	Frequency	Percentage
-Covid19	30	11.40%
-Covid19 virus	7	2.66%
-Coronavirus	66	25.09%
-Corona	90	34.22%
-Coronavirus pandemic	27	10.26%
-Covid19 pandemic	7	2.66%
-virus	19	7.22%
-pandemic	17	6.46%
Total	263	100

According to the table above, the results show that the noun corona was used with a percentage of 34.22%, coronavirs 25.09%, covid19 11.40%, coronavirus pandemic 10.26%, virus 7.22%, pandemic 6.46%, and finally with the same percentage of 2.66% covid19 virus and covid19 pandemic.

# 8.1.2 Covid19 related adjectives in Facebook public users' publications:

Table 27 : Adjectives representing COVID-19 in Facebook Public users' publications

Adjectives	Frequency	Percentage
-deadly	6	19.35%
-scary	12	38.70%
-dangerous	3	9.67%
-fearful	10	32.25%
Total	31	100%

According to the results above, 38.70% of the adjectives used is the adjective scary, it is followed by fearful with 32.25%, deadly with 19.35% and finally dangerous with 9.67%.

# 8.1.3 COVID 19 related Hash-tags in Facebook public users' publications

Table 28: Hash-tags representing Covid-19 in Facebook Public users' publications

Hash-tags	Frequency	Percentage
l#Corona	29	33.72%
l#Coronavirus	17	19.76%
l#Covid19	6	6.97%
l#Virus	4	4.65%
l#Stay home	20	23.25%
l#Quarentine	6	6.97%
l#Together we can	2	2.32%
l#God bless us	2	2.32%
Total	86	100%

According to the table above the hash-tag #corona had been used with a percentage of 33.72%, #stay\_home with 23.25%, #coronavirus 19.76%, #quarentine and #covid19 had been used equally with a percentage of 6.97%, #virus 4.65%, finally #together\_we\_can and #god\_bless\_us with the same percentage of 2.32%.

# 8.2 Facebook Media users

We analyzed and classified the covid19 lexicon used in Facebook publications by media users from March 2020 till March 2021. The results are presented in the following sections:

Table 29 : COVID-19 related lexicon used by Facebook media users and their classification

Lexicons	Frequency	Percentage
-Nouns	616	52.15%
-Adjectives	18	1.52%
-Hash-tags	547	46.31%
Total	1181	100%

Through the tables above we observe that 52.15% of the covid19 lexicon used by media users in their publications are nouns, it is followed then by hash-tags with 46.31% and finally adjectives with 1.52% from a period of March 2020 till March 2021.

# 8.2.1 COVID 19 related nouns in Facebook media users' publications:

Table 30: Nouns indicating Covid-19 through Facebook media users

Nouns	Frequency	Percentage
-Covid19	200	32.46%
-Coronavirus	90	14.61%
-Corona	76	12.33%
-Covid19dz	20	3.24%
-Corona pandemic	50	8.11%
-Coronavirus pandemic	36	5.84%
-Covid19 pandemic	80	12.98%
-virus	25	4.05%
-pandemic	39	6.33%
Total	616	100

The results in the table above show that the nouns covid19 had been used with an average of 32.46%, coronavirus 14.61%, covid19 pandemic 12.98%, corona 12.33%, followed by corona pandemic with a percentage of 8.11%, pandemic 6.33%, coronavirus pandemic 5.84%, virus 4.05% and finally covid19dz with 3.24%.

#### 8.2.2 COVID 19 related adjectives in Facebook media publications

Table 31: Adjectives representing Covid-19 through Facebook media users

Adjectives	Frequency	Percentage
-deadly	5	27.77%
-scary	6	33.33%
-dangerous	2	11.11%
-fearful	5	27.77%
Total	18	100%

According to the results above, the adjective scary had been used in Facebook media publication with a percentage of 33.33%, it is followed with deadly and fearful which have the same average use of 27.77% finally dangerous with 11.11%.

#### Covid19 related Hash-tags in Facebook media publications:

Table 32 : hash-tags denoting Covid-19 throughout Algerian Facebook media users

Hash-tags	Frequency	Percentage
l#Covid19	270	49.36%
l#Coronavirus	196	35.83%
l#Stay home	42	7.67%
l#Coronavirus algerie	35	6.39%
l#your mask is your protection	4	0.73%
Total	547	100%

According to the table above the hash-tag #covid19 had been used with a percentage of 49.36%, #coronavirus 35.83%, #stay\_home 7.67%, #coronavirus\_algerie 6.39% finally #tour\_mask\_is\_your\_protection 0.73%.

#### 8.3 Government Facebook users

We analyzed and classified the covid19 lexicon used by governmental Facebook users during the period of March 2020 till March 2021. The results are elaborated in the following tables and figures:

Table 33: Covid-19 lexicon used by Algerian government in Facebook and their classification

Lexicons	Frequency	Percentage
-Nouns	153	52.39%
-Adjectives	19	6.50%
-Hash-tags	120	41.09%
Total	292	100%

According to the tables above, the result show that most of the covid19 lexicon use by the government in their posts are nouns 52.35%, than with a close percentage come Hash-tags with 41.09% and finally adjectives with 6.50% from March 2020 till March 2021.

# 8.3.1 Covid19 related nouns in Algerian governmental publications

Table 34: Covid-19 related nouns used by Algerian government in Facebook

Nouns	Frequency	Percentage
-Covid19	38	24.83%
-Corona	20	13.07%
-Coronavirus	50	32.67%
-Coronavirus pandemic	15	9.80%
-covid19 pandemic	12	7.84%
-virus	10	6.53
-pandemic	8	5.22%
Total	153	100%

According to the results above the noun coronavirus had been used with an average of 32.67%, covid19 24.83%, corona 13.07%, coronavirus pandemic 7.84%, virus 6.53% and finally pandemic 5.22%.

# 8.3.2 Covid19 related Adjective in Facebook governmental publications

Table 35 : Covid-19 related adjectives used by Algerian government in Facebook

Adjectives	Frequency	Percentage	
-deadly	12	63.15%	
-scary	5	26.31%	
-dangerous	0	0	
-fearful	2	10.52%	
Total	19	100	

The table above show that the adjective deadly had been used with a percentage of 63%, scary 26.31% and fearful 10.52.

# 8.3.3 Covid19 related Hashtags in Facebook governmental publications

Table 36: Hash-tags representing Covid-19 used by Algerian government in Facebook

Hash-tags	Frequency	Percentage
l#Covid19	25	20.83
l#Coronavirus	30	25
l#Corona	15	12.4
l#Virus	2	1.66%
l#Together we can	10	8.33%
l#Ourconsciousness protect us	20	16.66%
l#stayhome	10	8.33%
1#Quarentine	8	6.66%
Total	120	100

According to the table above, the result show that the most hash-tag used is #coronavirus with 25%, followed by #covid19 20.83, #our\_conscioussness\_protect\_us 16.66%, #corona 12.4%, #stay\_home and #tgether\_we\_can with 6.66% and finally #virus with 1.66%.

In this section we analyzed the covid19 lexicon used in social media by the Algerian media users from March 2020 until March 2021. We analyzed the nouns, adjectives and hash-tags related to covid19 that had been used in Facebook, Twitter and Instagram. Four categories of ledia users had been used for this analysis, which are government, media, celebrities and public users.

On Twitter Government used nouns related to covid19 with a percentage of 55.06, while the used hash-tags with 42.58 and finally adjectives with 1.34%. Whereas on Facebook they used nouns with a percentage of 52.39, hash-tags with 41.69 and adjectives with 6.50%.

Media has used nouns on Twitter with a percentage of 53.05%, adjectives 2.09%, and hahs-tags 44.85%. While on Instagram nouns had been used with an average of 25.96%, adjectives 10.52% and hash-tags 63.77%. Whereas on Facebook the results was 52.15% for nouns, 1.52% for adjectives and 46.31% for hash-tags.

Public users used nouns on Twitter with a percentage of 18.50%, adjectives 4.57%, hash-tags 76.92%. While on Instagram we found noun with 11.23%, adjectives 22.56% and hash-tags 66.15%. Whereas on Facebook the percentage of use of nouns is 69.21%, adjectives 8.15% and hash-tags 22.63%. Celebrities used nouns in their posts with a percentage of 25.66%, adjectives 12.04% and hash-tags 62.30%.

# **Section three: Discussion of the findings**

This study investigates the COVID 19 lexica used in social media from March 2020 until March 2021 by four categories of Algerian media users; namely, government, media, celebrities, and public users. We used three different platforms which are Facebook, Twitter and Instagram. We also investigate the cultural and social fingerprints in the use of these lexica.

On Twitter, the government used nouns related to covid19 with a percentage of 55.06%, while the used hash-tags with 42.58% and finally adjectives with 1.34%. Whereas in Facebook, they used nouns with a percentage of 52.39%, hash-tags with 41.69% and adjectives with 6.50%. The nouns that had been used the most are: covid19, coronavirus, and corona which are formal names of the covid19 with high percentage, in comparison with the other used nouns; covid19 pandemic, corona covid19 pandemic, coronavirus pandemic, covid pandemic, corona covid 19 pandemic, covid19 virus. From these results, we can see that most of these nouns are compound nouns; through adding the term "pandemic", Algerian users try to inform people (followers and readers) and push them to understand that this disease is dangerous and seriously wide spread.

Moreover, they used 3 main adjectives in their tweets and post. They used adjectives deadly and dangerous to make people aware of the gravity of this virus, danger, and health threat. Besides, the adjective fearful is employed mainly to express the fright and worries toward covid19.

Furthermore, the hash-tags utilized (especially: #covid19, #coronavirus, #corona) are the most used hash-tags by the government. These are the trendiest hash-tags. They also used: #protect\_your\_family, #our\_health\_is\_our\_responsability, #our\_cosciousness\_protect\_us in order to rise implant awareness and consciousness in people's minds. While they used the hash-tags of #stay\_home, #together\_we\_can, #wash\_your\_hands, #prevention and #quarentine to remind people about the prevention ways that government imposed during the pandemic, and encourage people to cooperate with the prevention measures and apply them for their safety and the protection of others.

Media users also utilized three categories of covid19 lexicon: nouns, adjectives and hash-tags on Twitter, Facebook and Instagram. Nouns are used on Twitter with a

percentage of 53.05%, adjectives 2.09%, and hash-tags 44.85%. While on Instagram nouns had been used with an average of 25.96%, adjectives 10.52% and hash-tags 63.77%. Finally, on Facebook the results show that 52.15% of the lexica are nouns, 1.52% is adjectives, and 46.31% are hash-tags. Media users used the nouns covid19, coronavirus and corona with the biggest percentage since they report the covid19 information from government tweets and posts they used the *formal* names of covid19, while they used the terms pandemic, epidemic, coronavirus pandemic, corona pandemic, covid19 pandemic so as readers and followers understand that it is a wide spread and contagious virus and to express the seriousness of the health situation in Algeria.

The covid19 related adjectives are used in order to express the severity of this virus on people's life and to convey to the followers how deadly and dangerous the situation is. The adjectives "scary and fearful" were used to express the fear felt towards the pandemic situation. The most used hash-tags are the trendy formal hash-tags #covid19, #coronavirus, #covid and #corona since media report formal lexica used by government. They used #coronadz, #covid19dz, #coronavirusalgerie in order to show their *identity* and the society they belong to.

Haash-tags like #stay-home, #quarentine, #stay\_safe, #your\_mask\_is\_your\_protection, and #together\_we\_can are employed to raise awareness about the different ways of protection and the prevention measures imposed in order to for the protection of the population.

Public users used nouns on Twitter with a percentage of 18.50%, adjectives 4.57%, hash-tags 76.92%. While on Instagram, we found noun with 11.23%, adjectives 22.56% and hash-tags 66.15%. Whereas on Facebook, the percentage of use of nouns is 69.21%, adjectives 8.15% and hash-tags 22.63%. The covid19 related nouns used by public are most the simplest names, coronavirus, covid19, pandemic, epidemic, virus. The public users used the lexicon covid19dz to show the *social belonging* and the *origin* they belong to. The adjectives deadly and dangerous were used to show their awareness about the gravity and the seriousness of the covid19 virus, while the adjectives fearful and scary were used to express their fright and their worries from this disease.

Finally, the goal of some Hash-tag used by public users was to show their consciousness and awareness toward the pandemic and their respect and their contribution to the prevention measure such as <code>#stay\_home</code>, <code>#be\_safe</code>, <code>#quarrentine</code>, <code>#together\_we\_can</code>, and <code>#against\_covid</code>. Moreover, they used <code>#God\_bless\_us</code> in order to express their hope and their *religious belief*, while, they used <code>#coviddz</code>, <code>#covid19dz</code>, <code>#coronavirusdz</code>, <code>#coronavirusdz</code> eso as they show their *cultural and social belonging* and their origin through the addition of "dz, algerie" at the end of their hash-tags and some compound nouns.

Celebrities used nouns in their posts with a percentage of 25.66%, adjectives 12.04% and hash-tags 62.30%. They used the nouns infection, disease, virus and pandemic to point at the situation of covid19. They also used simple lexicon related to covid19 name corona, coronavirus, and covid19. They used the adjectives deadly and dangerous to show that they are also aware and conscious about the covid crisis, and the adjectives scary and fearful so as to show their *feeling* of fear from this virus.

The hash-tags are the trendy hash-tags #covid19, #coronavirus and # corona. While #stay\_home, #stay\_safe, #save\_lives, #optimism and #quarentine were used to express their awareness about the measures of prevention, and to influence people since they are celebrities and to express hope throughout the dangerous situation.

As a conclusion, we notice that the terms covid19, coronavirus, corona and pandemic are the lexica that are used mostly by all the categories. The hash-tags used on social media express solidarity, awareness, consciousness and other express fright.

There are *not many* researchers who dealt with this current topic. While we found in Cougnon-Deviron (2020) research "Covid19 and Communication Crisis: Linguistic Focus on French and Belgium tweets" that the researchers explored the covid19 terms used in tweets for the government, media; public users and celebrities. They explored in their research the covid lexica used on tweets to determine and define covid19, and how these different social classes communicate this lexica through the use of Twitter. They conclude that the lexica covid19, coronavirus and pandemic are the most used terms on social media for covid19. They deduced that covid19 lexica used by population in social media express hope and solidarity.

Government is the source of information about covid19 pandemic as it provides a direct communication of covid19 to population and they are supported by media.

According to the result we notice that the culture had an effect on the language used for eg: #coviddz, #covidalgerie, #coronavirusalgerie and covid19dz. The users added Dz and Algeria so as to show their identity, origin and the culture they belong to. They used #God\_bless\_us to determine their religious believes.

The lexicon used by government, media, public and celebrities differ according to the social class, the awareness of covid19, and intellectual level and their roles in society.

Government used formal lexica because of their higher social class they are in direct relation with the covid19 and they are the official accounts that transfer the official information to the population. They used compound nouns English lexicon because they are directly related to covid19 lexicon, they are in direct communication with the coronavirus lexicon since it interacts with other cultures. Media, from another side, support the government by transferring information, and thus, the lexicon they use is formal as well.

The lexica of public users and celebrities are not as rich as the governmental and media vocabulary because of the lack of interaction with the covid19 and of the intellectual level. Public users may have a limited covid19 vocabulary than political and media classes because they are less aware and conscious about this pandemic and social situation during this period of coronavirus.

#### Conclusion

In conclusion, the covid19 lexica used by the four population classes on social media is divided into three categories; nouns, adjectives and hash-tags. The lexica used on the social media showed the awareness and consciousness of the population about covid19. The lexica used transmitted meanings of hope, solidarity as well as frighten and the degree of gravity of the covid19.

#### **Section four: Suggestions and recommendations**

This study explores the sociocultural effect on covid19 lexicon in social media. The results show that the population is aware and conscious about the covid19, and social media plays a role in raising that consciousness in people.

Therefore, in this section we tend to present some recommendations and suggestions that we deduced throughout our study.

#### 9. Recommendations

Social media is a strong language that can help in avoiding lot of critical situations. Therefore, based on the research findings and discussions of the results, the researcher recommends the following points:

- Sharing messages in text, photos or videos on social media platforms like Facebook, Instagram, YouTube, Twitter with the use hashtags (#) can help in raising awareness about covid-19 pandemic. Therefore, people (in whichever social class or culture) should try to benefit the maximum from these platforms.
- People should use of posters in strategic locations of the neighborhood, camps, institutions to raise the awareness about the pandemic. Make big posters with slogans in public places to remind them the danger of this virus.
- People should distribute awareness raising materials about covid-19 (brochure) through universities, make brochures with all the information needed on covid19 and distribute them on students, teachers and university staff.
- Leave printed materials such as Brochure/Posters in strategic locations including supermarket/ shops/ food stores where families need to visit. For example make brochures and distribute them on people in these places.
- Request religious men or mosques to read out key messages. For example devote few minutes to remind people about the covid19 danger and about the prevention measures each Friday.

#### 10. Suggestions for further research

This research is limited to a socio-cultural analysis of covid 19 lexicon and explaining these lexica from socio-cultural perspective. However, this study could not explain other important aspects in this area. For this reason, we suggest for future research the following topics based on the research findings and discussions:

- More research works should be done to explain in depth the relationship between lexicology and society and culture.
- Moreover, more works can be done about the role of social media in sharing Algerian culture and social aspects
- Working on how to raise people's awareness on the benefits of social distancing in reducing spreading of covid -19 and the role that social media play in this area.
- Work on topics that deal with role of social media in raising public awareness about coronavirus vaccine, vaccine acceptance, and hesitancy
- Works that deal with scenarios of possible health crises like covid-19 in the future and the ways to prevent them.

#### **Conclusion**

In this chapter, we analyzed and discussed the results of our research. We arrived at the conclusion that culture and society has an effect on the use of covid19 lexicon in social media and that social media plays an important role in raising the awareness and consciousness of people towards the covid19. Therefore this chapter discusses the research design and methods of data analysis, population and research tools. Moreover, we proposed some suggestion and recommendation, researchers can use for further studies.

#### **General Conclusion**

This study sheds the light on spread of Corona virus which had a significant impact on the world. The people were obliged to stay in quarantine for most of the time. The psychological and the physical states were a reaction to the change of the daily routine as well as the economic factor which was considerably affected. Thus, this study aims to explore the COVID-19 lexicon used by Algerian media users, and explaining the sociocultural position toward this lexicon use from general perspective. In additions, this study tries explore the new COVID-19 lexicon used by Algerian social media users and demonstrate how Algerian society and culture is shown through the use of this coivd-19 lexicon.

Furthermore, this study investigates in-depth. First, the different COVID lexica employed throughout three major social media platforms; namely: Twitter, Instagram and Facebook. Second, it investigates the difference in the use of these lexica among different Algerian social classes mainly: government, media and public users. Finally, it explains these differences from different cultural and social perspective through answering the following questions:

- 1. What is the position of Algerian media users towards the covid-19 pandemic?
- 2. What are the characteristics of covid-19 lexicon used by Algerian media users?
- 3. How all does Algerian culture and society affect the use of covid-19 lexicon throughout social media?

This research study follows the procedures of exploratory design which bases on quantitative method. The data is collected through the observation and exploration of 77 Algerian accounts of different classes on three social media platforms: Facebook, Instagram and Twitter. We explore tweets, posts, hash-tags, publications and comments of governmental, media, celebrities and public users. The data had been collected the different Covid-19 lexica that these users used from a period of March 2020 until March 2021, then we divide them into categories: nouns, adjectives and hash-tags (that include both nouns and verbs).

After analyzing the findings of the study which were based upon on the Algerian users of the three foremost platforms of social media; namely: Facebook, Intagram and Twitter, the researcher went through the analysis of different social classes for each platform (mainly government, media and public) which makes a total of 77 accounts. In

# General conclusion

particular, through Twitter we analyze three categories; Algerian governmental users (like politicians and political organizations); the second category was Algerian public users; and finally, Algerian media users (journalists' accounts and journalistic pages). For Instagram, we analyze variety of Algerian public users' publications, Algerian media users (media pages and reporters accounts), and finally the third category was the Algerian celebrities. Third, for Facebook users, we used four categories of users. We analyze the governmental pages, media publications which were journalists and journalistic pages, Algerian celebrities and finally public users.

The study's questions were answered; the study found that the Algerian social media users were aware of COVID -19 pandemic. In addition, there were different characteristics of covid-19 lexicon were used by the Algerian users as shown in the study findings, also the Algerian culture and society fingerprint was clearly demonstrated on the use of covid-19 lexicon throughout the social media.

We concluded that Algerian users of social media show their awareness of the gravity and seriousness of the situations, and through the use of different hash-tags, they tried to help in raising awareness about the ways of protection and preventions against COVID-19. From another side, the lexicon use has shown that the Algerian users always demonstrate their identity through the use of compound nouns or the use of suffixes that signify the Algerian identity (like dz for example). The difference between public users and governments and media is that the latter focus on using formal and worldwide known lexicon (that signify COVID-19) whereas public users use more lexicon that signify the COVID-19 in Algeria (like coronavirusalgeria). He different can explained through the social roles of these people.

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