Linguistics

Information in the COVID-19 Pandemic Era: Is it Fact Fake or Fear

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A B S T R A C T

Concerns about fake news on social network sites are ascending. The aim is to deliberately create and share false or manipulated information to mislead the public, to cause harm for public figures, and/or get financial gains. In Morocco, the rise of fake news in the COVID-19 era highlights the fight of many media institutions, including the Maghreb Agency Press, against misinformation. The content used by media and social network sites to report about the spread of the disease has put the pandemic at the forefront of people's daily discourse. Actually, the outbreak of unfiltered information on the COVID-19 contagion seems to have sparked fear amongst the public via re-tweetable tweets, likable posts, and shared documents. For about three months, a deluge of fake news was created to target COVID-19, health stuff, society, security, and religion, among other public domains. Relying on the Maghreb Agency Press database fact-checking, the present study investigated news stories, verified by the agency as false stories, since the outbreak of COVID-19 in the country between March 11 and June 11th, 2020. The data comprise 249 stories posted, shared, and re-tweeted by people on social network sites. Overall, an increasing trend in sharing fake news on COVID-19, health, security, crime, society, and education, among other issues has been observed. The role of social media is determinant in the propagation of misinformation. Equally important, the constructed and shared content on social networking sites regarding the issue of COVID-19 needs to be carefully considered so as not to maximize public fear and panic.

I. INTRODUCTION

Concerns about fake news on social network sites are ascending. For the purpose of misleading the public and causing harm, deliberate creation and sharing of false or manipulated information are most of the time for political, personal, or financial aims. It is argued in Wardle (2017) that there are seven distinct types of problematic content that fall within the information system to measure intentional deceiving through fake news depending on the identity and motivations of the creators. In a graduation scale from the least to the most toxic, Wardle's list includes '*poor quality journalism*' (unverified tweets, blog posts, or rumors), the '*parody*' (satire, which aims to make humor), the '*provocation*' (to create buzz), the '*passion*' (characteristic of committed people), the '*partisanship*' (reflects the spirit of a party), the '*profit*' (personal or commercial spinoffs), '*political influence*' (conquest of power), and finally the '*propaganda*' (to make a cause triumph). Undoubtedly, false information related to COVID-19 has spread fear and perdition. More than that, dissemination of false information has put the credibility of social network sites (SNS) and people's common wellbeing at stake. With the internet, SNS have become the most acclaimed tool for freedom of speech, democracy, truth, and

source of infotainment (Brindha, Jayaseelan & Kadeswara, 2020). In the COVID-19 pandemic outbreak, social media reigned by information or misinformation and becomes "the most-searched venue for information-gathering. There are thousands of people spreading information, sensationalism, rumors, misinformation, and disinformation making it crucial for Governments and experts to fight the pandemic as well as the infodemic" (Brindha et al., 2020, p. 586). On February 15, in his speech at the Munich Security Conference, Tedros Adhanom Ghebreyesus, the director of the World Health Organization, used '*infodemic*' as a neologism to warn of the dangers posed by the spread of rumors and misinformation and to describe the extraordinary media outburst surrounding the deadly COVID-19 outbreak saying that "[…] we are not just fighting an epidemic; we are also fighting against an infodemic" (Ghebreyesus, 2020). His alert refers to the massive, anarchic, and toxic waves of fake news that accompany the spread of the virus across the world.

For many centuries, humans have used lies to blame, persuade, win arguments, and/or exert dominance (Barclay, 2018). Lying can even be used as "a form of entertainment, as evidenced by the many forms of comedy... to lie is, in essence, to supply others with misinformation. Fake news, lies, rumors, fibs, propaganda; all are synonyms for misinformation" (Barclay, 2018, p.1). This century has seen the spread of misinformation on an unprecedented scale. Internet-based technologies make the construction, manipulation, and amplification of content simple and dramatic through SNS (Ireton & Posetti, 2018). Generally speaking, fake news is fabricated information that mimics news media content in form but not in organizational process or intent. It is created to be widely shared online to generate revenue via SNS, to denigrate a public figure and to discredit political movements and/or companies (Lazer, Baum, Benkler, Berinsky, Greenhill, Menczer, Metzger, Nyhan, Pennycook, Rothschild, Schudson, Sloman, Sunstein, Thorson, Watts & Zittrain, 2018, p. 2).

It should be made clear that the dissemination of unfiltered information seems to have sparked fears and ambiguity among the general public. Technically, fake news lacks the news media's editorial norms and processes for ensuring the accuracy and credibility of the information. For many media experts, fake news overlaps with misinformation (false or misleading information) and disinformation (false information that is purposely spread to deceive people) (Karlova & Fisher, 2012; Busby, Khan& Watling, 2017; Guy, 2017; Wardle &Derakhshan, 2017; Ireton & Posetti, 2018; Lazer et al., 2018). Most of the time, the discourse on fake news conflates the three notions when it comes to distinguishing true from false messages that are intentionally created, produced, or distributed to harm and denigrate. In line with Lazer et al. (2018), '*misinformation*' stands for an information that is false, but not created to cause harm. However, '*dis-information*' *is* false created information that is deliberately dictated to harm individuals, social groups, organizations, or countries. In addition to Lazer's two elements, a third concept, called '*malinformation*', is added. In the ethics of journalism, '*malinformation*' is defined as information that is based on reality, used to inflict harm on a person, organization or country (ethicaljournalismnetwork.org).

On the spread of fake news, a study by Vosoughi, Roy and Aral (2018) mentions that false information spread "significantly farther, faster, deeper, and more broadly than the truth in all categories of information, and the effects were more pronounced for false political news than for false news about terrorism, natural disasters, science, urban legends, or financial information" (p. 1146).

Fake news impacts knowledge, attitudes, and behavior (Rosenthal, Kaplan, Langrall Folb & Rogers, 2015). Historically, fake news has primarily drawn attention to issues related to the widespread use of propaganda politics in the first World War and the rise of corporate public relations in the 1920s (Ellul, 1973; Allcott & Gentzkow, 2017; Allcott, Gentzkow & Yu, 2019; Bolsover, 2019; Lazer et al., 2018; Zmerli, 2019). With the advent of information and communication technologies, the internet has become not only a resource of knowing and learning but also a platform where inaccurate information has targeted many public domains. In relation to nutrition, false scientific news, exaggerated or misleading reporting of research, reporting of fabricated or

fraudulent research, misleading press releases, and communication of web-based scientific fantasies have been posted on the internet (Bessi, Coletto, Davidescu, Scala, Caldarelli & Quattrociocchi, 2015; Rowe & Alexander, 2019). On a similar scale, health has been deeply affected by the spread of false information since the earliest days of scientific medicine in which rapid and fraudulent spread of false information, generated intentionally or unintentionally, threatens the lives of individuals, disseminates fear, and pushes people to take inadequate decisions due to irrationally handling of information (Wanga, McKeeb, Torbicaa & Stucklerc, 2019; Pelissolo, Cautrès, Ward, Bibard, & Zylberman, 2020; Thompson & Lazer, 2020).

It would be hard to deny the role that many SNS (Facebook, WhatsApp, and Instagram) have played to help millions of people to connect with friends and family. Undoubtedly, their role has been primordial during the COVID-19 global pandemic and the consequent restrictions on movement and freedom (Jack, 2020). Nevertheless, since the outbreak of the COVID-19 pandemic in Morocco, early in March 2020, the internet has been inundated by false news related to the virus, an epidemic that remains little known to even scientists. Admittedly, SNS bear a responsibility in this uncertainty because never before had a health crisis been monopolized by media and SNS coverage (Pulido, Villarejo-Carballido, Redondo-Sama & Gómez, 2020). Faced with this phenomenon, Moroccan authorities have tried to react strongly by denying and rectifying information. From the outset, the authorities have noticed an increase in the dissemination of false events by different media outlets, including SNS, of fake documents, photos, and audiovisual content, saying that they have been presented to the public without being filtered or verified. The rise of fake news in the COVID-19 era brings into light the melee of many media institutions, including the Maghreb Agency Press (MAP), against misinformation in Morocco. Through liking and sharing of information, SNS have constituted privileged platforms to magnify the spread of false information on the issue of COVID-19. The rise of information on the pandemic on SNS has engaged many national media services in indefatigable campaigns to cross-check false information. One important media service is the MAP. Owing to a clear and well defined strategic orientation in line with the limits of the 21st century press agencies, the MAP is central to the national media landscape through the implementation of highly qualified professionalism in terms of personnel and information management. Interestingly, the MAP is a media partner that accompanies the pluralistic democratic choices of the country, the commitment of the national institutions, and the achievements of the Moroccan society. In five languages (Arabic, Amazigh, French, English, and Spanish), the MAP provides verified, cross-checked and complete information that meets professional standards. The content used to discuss the propagation of COVID-19 in Morocco has put the agency at the frontline to fight the pandemic from the information level. Recently, the outbreak of fake news on the virus resurgence in Morocco targeted the pandemic context, health, society, religion, security, and religion among others. Since the second of March 2020, the day Morocco confirmed the first positive case, and due to poor information on the issue, people have been trying to obtain information about the virus from inside and outside the formal health care system. So how has the media and SNS manipulated news and information to quench people's need for information on the pandemic?

In the present study, the aim is to explore whether access to information helps or hinders institutions' endeavor to curve the virus in Morocco and how the trustworthiness of governmental institutions have been affected by the deluge of fake information over the last three months. At the time of writing this article, constant incoming of fake posts on SNS has been reported on the topic of COVID-19 (BBC News, 2020; Brennen, Simon, Howard & Nielsen, 2020; Singh, Bansal, Bode, Budak, Chi, Kawintiranon, Padden, Rebecca, Vanarsdall, Vraga & Wang, 2020; Marr, 2020; Pulido, Villarejo, Redondo, Guo, Ramis & Flecha, 2020). Every day, and since the outbreak of COVID-19, Moroccans have been exposed to articles, photos, videos, or documents detected as fake news on Facebook, WhatsApp, and other social media platforms. To elaborate more, the present study relies on a huge amount of content identified by MAP as fake news content; the data were carefully read through, grouped into key categories, and worked out according to their frequency.

II. METHODS

The many campaigns that Moroccan media outlets have undergone reflect on the extent to which fake news has been reported as false and misleading. Related to the propagation of false information the present research aims at alleviating the impact of fake news on individuals and society regarding malevolent misinformation. The COVID-19, which has infected more than 13 million people worldwide, including 580 thousand deaths (covid19.who.int), is the source of a flood of fake news relayed by media outlets and SNS. The MAP sorts out intoxication and the right information for better awareness. Relying on the MAP fact-checking data, the present article attempts to examine the issue of fake news and the mechanisms by which it spreads. Accordingly, 249 press extracts have been retrieved from the MAP website (mapexpress.ma) to explore the public and institutional domains targeted by fake news from 11th of March to 11th of June, 2020. Specifically, the period has been divided into three-time spans to account for the details related to the occurrence of themes. The first period extends from 11th March to 21st April. Similarly, the second span started from 22nd April to 11th May. Finally, the third period ranged from 12th May and ended on the 11th of June. Practically, the MAP treats information as fake or real. Our concern is on fake news. The study has discarded any other information that has been identified by the agency as real or occurring.

Data Theme Identification Techniques

First, it should be noted that the media productions that accompany public reactions to the outbreak of the pandemic have been examined. As a matter of fact, 249 false news stories were put into themes to determine the most targeted public services, institutions, and social interests. Above all, we aimed to determine the extent to which these postings can potentially affect institutions' performances and raise individuals' fears and preoccupation with the pandemic. Once all the information has been collected, the data were categorized into topics and services. The concept of theme, a pivotal tool in social sciences to categorize data or texts, bears many different names such as '*categories*' (Glaser & Strauss, 1967), '*codes*' (Miles & Huberman, 1994)*,* '*labels*' (Dey, 1993), '*incidents*' (Glaser & Strauss, 1967), '*segments*' (Tesch, 1990), '*thematic units*' (Krippendorf, 1980), '*data-bits*' (Dey, 1993), '*chunks*' (Miles & Huberman, 1994), or '*concepts*' (Strauss &Corbin, 1990). Based on Ryan and Bernard (2003), our analysis focused on content by putting news stories into categories to answer some of the most important and most interesting questions related to the alternation of fake news by the COVID-19 pandemic. For Ryan and Bernard (2003), the categorization of data into themes is a multifaceted technique that involves several tasks: "discovering themes and subthemes, winnowing themes to a manageable few (i.e., deciding which themes are important in any project), building hierarchies of themes or code books, and linking themes into theoretical models" (p.85). In this sense, texts were converted and classified according to Ryan and Bernard (2003) framework which is based on a) '*an analysis of words*' (word repetitions, key-indigenous terms, and key-words-in contexts); b) '*careful reading of larger blocks of texts*' (compare and contrast social science queries and searching for missing information); c) '*intentional analysis of linguistic features*' (metaphors, transitions, connectors); and d) '*physical manipulation of texts*' (unmarked texts, pawing, and cut and sort procedures). In the issue at hand, the present study opted for '*Key-words-in-context*', a deconstruction technique used by Ryan and Bernard (2003) to observe and identify key words and to systematically search corpora and texts. The goal of which is to find all instances of the word or phrase by being physically sorted into piles of similar meaning.

III. RESULTS

Misinformation tends to spread over media outlets and SNS much faster than real news. Disasters, attacks, shootings, and pandemics are breeding grounds for fake news creators. They take advantage of the emotion surrounding these events to give maximum resonance to their products and content. In evaluating fake news' prevalence, this study tracked 249 short paragraphs, usually of two or three lines, evaluated by the MAP and other media outlets as fake information. From the French version of the MAP database, the excerpts were retrieved as individual stories to examine their intent. Each month, the public has been exposed to 83 pieces of information with a frequency of two fake stories per day. Interestingly, the fake
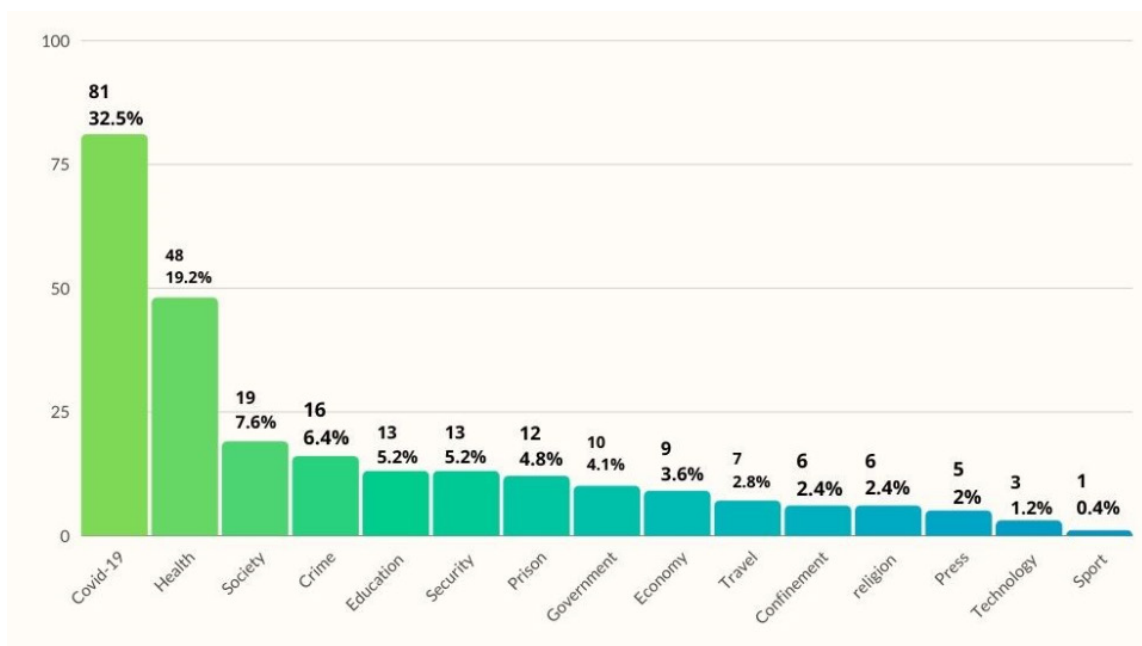
Fig. 1. Fake news according to Themes

Fig. 2. Fake news according Time Spans

information according to themes shows that false stories related to COVID-19 come first with 81 occurrences, 32.5% of the total number. With less frequency, other themes show the following: health 48 cases (19.2%), society 19 cases (7.6%), crime 19 false facts (6.4%), education 13 fake stories (5.2%), and security 13 cases (5.2%). Of feeble ratio, the results show that sport, technology, press, religion, and confinement have weak occurrences. (See figure 1 for more illustration).

Fake news statistics lie at the heart of social networks sites' assessment, as exemplified by the increase of unverified and unfiltered information. In figure 2 below, detailed statistics related to the first period indicate that fake news is used throughout the period and has touched many themes. In figure two, the flow of fake news according to the three time spans show that half of false information

occurred in the first period (126 news- 56.6%). With less frequency, the second and the third spans witnessed feeble occurrences respectively with 72 (28.9%) and 51 (20.49%) false information.

From the 11th of March to the 21st of April (see figure 3 below) the numbers show progress on the magnitude of fake news about COVID-19 (42.8%), health (19.04%), security (7.9%), society (6.3%), and crime (4.7). However, the least frequent themes or concepts show feeble numerical indicators such as the domains of sport, government, religion, or prison.

Focusing on the occurrence of fake news in the second period (22nd of April-11th of May), and as part of the themes assessment process, statistics in figure 4 underneath report slight changes if compared to those displayed in the first period.
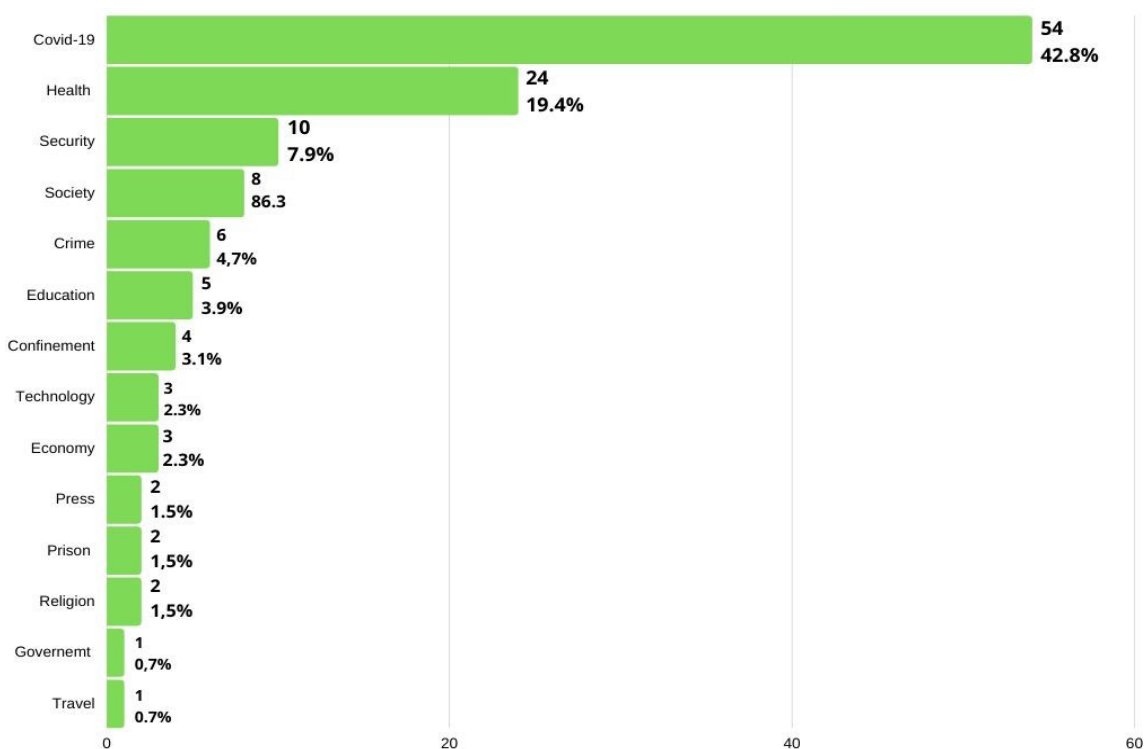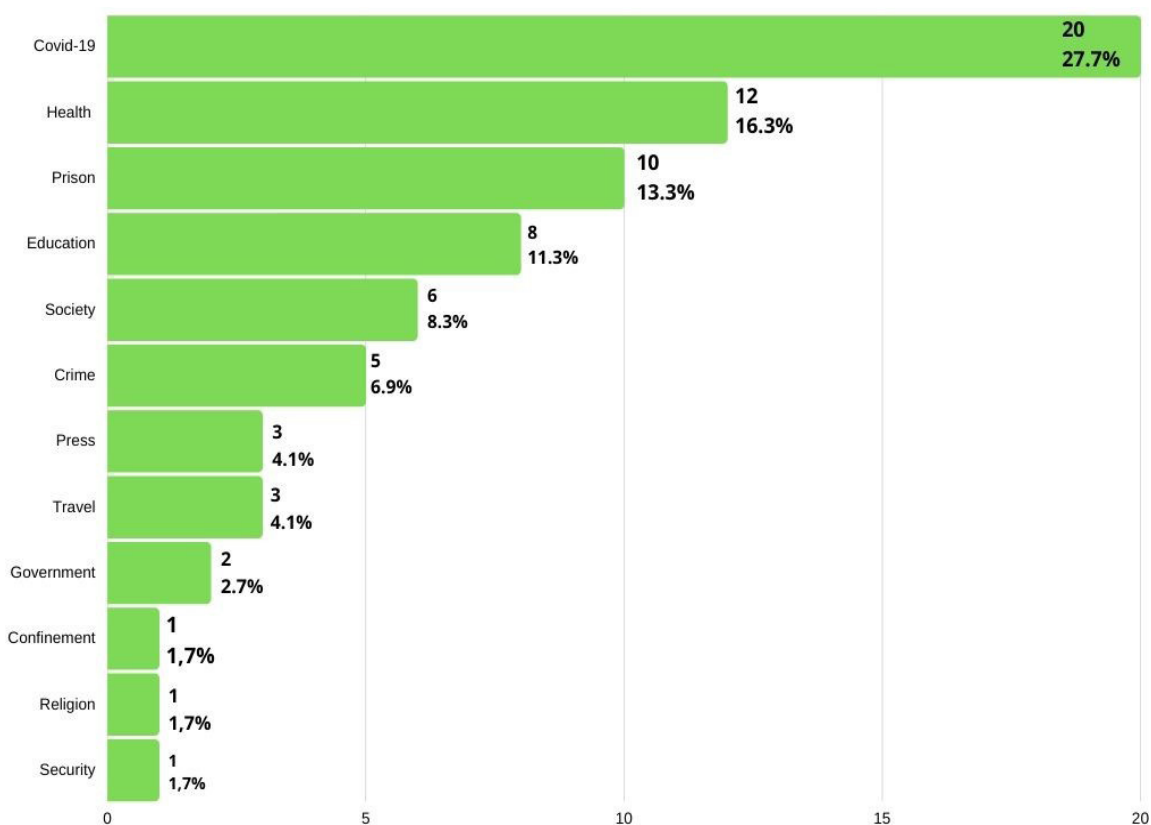
Fig. 3. Fake news according Time Span 1

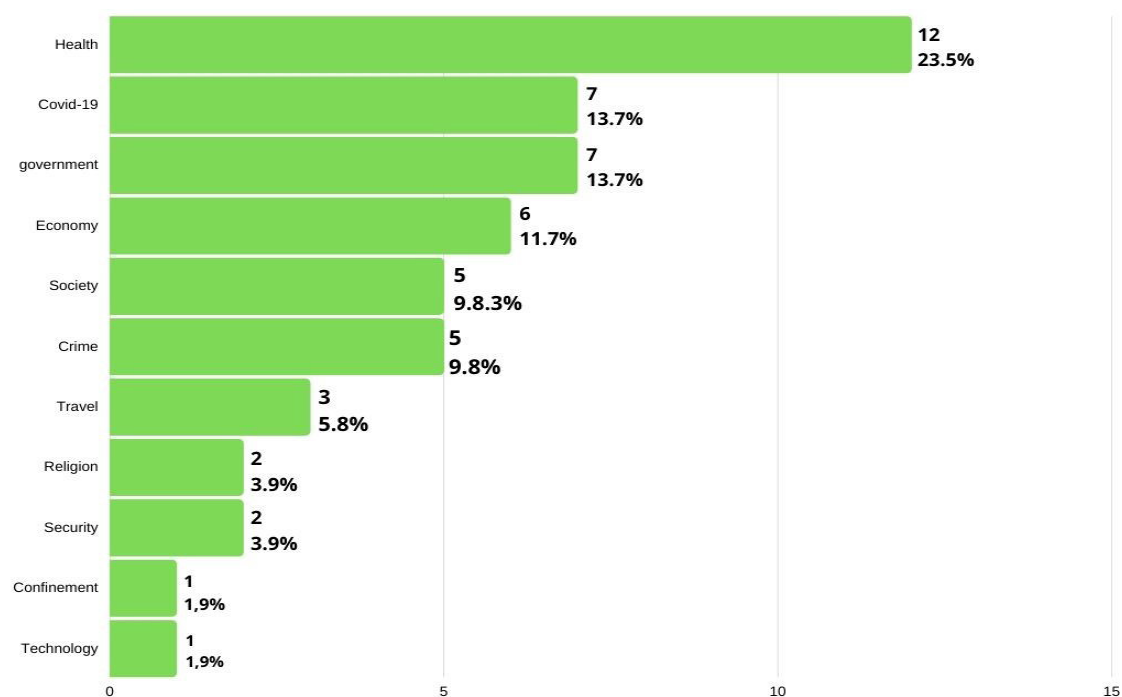**Fig. 4. Fake news according Time Span 2**

Fig. 4. Fake news according Time Span 3

Employing themes, the results of the second time span indicate that fake news about COVID-19 (27.7%) take the lead. Subsequently, the theme of health (16.3%) keeps the same position. Other issues that were relegated in the previous period show progress in the second period such as false news on prison (13.3 %) and education (11.1%). However, the theme of security, which occurred frequently in the first span, shows less occurrences in the second period; only one news story has been confirmed by the MAP as fake. Similarly, fake news regarding religion (1), confinement (1), and government (2) are less reported in this period.

Related to the third time span, figure 5 shows that if some themes have changed positions on the bottom of the table (government 7 cases and economy 6), themes of health (12) and COVID-19 (7) continue to occupy steady positions as the most frequently produced fake news. Differently, some values have a weak distribution as it is the case with the themes of technology (1), confinement (1), security (2), and religion (2).

To understand the implication of fake news in the COVID-19 pandemic, it is deemed important to interpret and discuss the issue according to a) the types of content qualified by the MAP as fake that has been created and shared on media and SNS platforms, b) to understand the motivations of those who created this false information, and c)

to understand the ways misleading information has been disseminated.

IV. DISCUSSION

Social network sites are new media outlets that permit rapid and continuous diffusion of information. Among the information posted, shared, and retweeted on SNS, a considerable amount of that information is fake, false, and misleading. Furthermore, one important mechanism underpinning the dissemination of content is that much fake news has been shared without verification on SNS by individuals or groups of people who intend to influence public opinion, as it has been reported in the MAP (2020). Popularized by SNS, the amount of fake news produced around the COVID-19 pandemic constitutes today a threat for credible and true information and a danger to people's perception of political, economic, and health issues.

The Motivations behind Fake News

The motivations behind fake news imply interests and objectives that creators of fake news intend to achieve by posting and publishing false information. The aim is surely to have social influence, to increase the audience, and to gain financial profit. In the COVID-19 pandemic, people look for information to protect themselves (Kushner, 2020; Wajahat,

2020). In this realm, inventors of false news can be motivated by two reasons: to get political and ideological gains and to disseminate fear. In other words, the more clicks a page gets, the more views a post has, the more visible the page becomes, and the more money it generates for the administrator. For these motivations, it can be argued that some creators are motivated by sociopathic and antisocial impulses to neither understand others' feelings nor feel empathy for them; their aims are driven by malign behaviors to break social roles and propagate chaos within society.

Disinformation around COVID-19

The dissemination of false facts and statistics on the number of ill and dead people pushed national press channels to react and deny false allegations attributed to the status of the COVID-19 in Morocco. Departing from its responsibility as an official media outlet, the MAP took the challenge to check all these sources before communicating them to the public. The MAP, as it is the case for many Moroccan media services, has dealt with a multitude of fake news that targeted not only the outbreak of the virus but also attacked individuals, governmental institutions, and the sphere of public life. Since the outbreak of COVID-19 in Morocco, false information has been disseminated via videos, posts, tweets, and audios on many media and SNS platforms. We can safely argue that the amounts of stories generated around the epidemic are relayed in several forms. Concerning the COVID-19 pandemic, a lot of malicious information exaggerated the status of the epidemic situation claiming that confirmed contaminated cases are much more numerous and critical than declared by health authorities. The following are some examples extracted from the data showing the misleading information about the development of the COVID-19 outbreak in Morocco.

- *COVID-19 is transmitted through Chinese food.*
- *Hanging out with Asian people increases the risk of attracting COVID-19.*
- *Certain areas of the country are quarantined due to the spread of COVID-19.*
- *Agadir has been declared a red zone.*
- *Cases of COVID-19 are estimated at thousands in several Moroccan cities.*

- *Many soldiers were infected by COVID-19.*
- *Hotbeds of COVID-19 discovered among Royal Armed Forces Units.*
- *Confirmed cases of COVID-19 are increasing in prisons.*

Other contents announce false information on the current security and institutional procedures management of the pandemic and have therefore created a feeling of panic among citizens. Many fake news stories were created and posted to minimize the gravity of the pandemic and to lower guard against the virus.

- *Garlic protects against COVID-19.*
- *Mosquitoes transmit COVID-19 9.*
- *Mothers transmit COVID-19 to their fetus.*
- *International plan to reduce populations by COVID-19.*

Finally, other types of messages relied on procedures or information to protect against COVID-19. These messages are full of intoxication. All the information falling under this category has no scientific basis or evidence that should draw on the world health organization, the only health authority that can confirm the reliability of the facts.

- *High temperature exterminates COVID-19.*
- *The homeless is not affected by COVID-19.*
- *Vitamin C strengthens immunity and helps to avoid contamination by COVID-19.*
- *Gargles of hot saltwater or vinegar cure COVID-19.*

Economic and Social Scourges

In the COVID-19 era, the dissemination of false information has become one of the major challenges for the economy and society. Beyond the loss of confidence in institutions and personalities, fake news has an impact on the economy. The proliferation of fake news in the last three months around the COVID-19 is discussed in this section to shed light on the implications of false information on the sector of the economy. Friday, March 13th, the spread of fake news on SNS about the shortage of food supplies in Morocco created a sense of panic among the general public. In the aftermath of the general lockdown, people hurried to stock up on necessary supplies. The repost of the government to fake news around this issue was imminent to

assure citizens that there is no reason to panic and take over supermarkets because the country has enough products available to Moroccans for many months to come. To contain speculations on this problem, the government warned that investigations were underway and that anyone found guilty of propagating rumors would be severely punished. Upon this unprecedented event, the government has decided to urgently pass a bill on fake news to fill the legal void; mainly when it comes to the dissemination of false information on social network sites. The following list shows some examples extracted from the MAP fact-checking database on the type of fake news that targeted the sector of the economy.

- *The herd is likely to be contaminated by COVID-19.*
- *Closure of all commercial and food sales areas.*
- *The German brand Adidas went bankrupt due to COVID-19.*
- *The resumption of activities for several economic sectors in Morocco.*
- *Prices of basic necessities have increased.*
- *Seizure of 6 million clandestine masks intended for export.*

Health Related Fake News

Wherever COVID-19 spreads, it causes concern. In Morocco, the domain of public health has been affected by fake news. For three months, a lot of information circulated to discuss the spread and contagion of the virus, reports the MAP. What heightens fear is that the disease comes from a remote place, where information is scarce. Beyond this impairment, it is very interesting to observe and verify what circulates on SNS and media outlets. People consider that the disease does not exist. Many believe that the virus is unreal because they do not see the sick while others discuss the best ways to heal the contaminated. As a consequence, people got intoxicated by believing unfiltered and unverified information. To explain the use of fake news for health reasons, the list below has been provided:

- *5G USB key sold on e-commerce platforms would protect against COVID-19.*
- *Hypertension medication increases the risk of*

contracting or develops COVID-19.
- *Men are more likely to die from COVID-19 than women.*
- *People with heart disease are more vulnerable to COVID-19.*
- *Pets transmit COVID-19.*
- *Only people with COVID-19 symptoms are contagious.*
- *Masks can be sterilized and reused.*

It is worth noting that people still live in an era when the news misleads and pushes them to adopt non-official measures to contain diseases and pandemics. To examine the extent to which fake news impacts spheres of life, further research is required to determine the mechanisms by which false information proliferates, especially the one related to COVID-19.

Societal and Educational Fake News

Apart from health fake news, societal religious and educational fake news is no exception. Many rumors have been produced around the pandemic to report about social issues and disqualify the efforts made by individuals and groups to contain the virus. This practice seems to have taken on an unprecedented scale, especially when it comes to society. Whatever the reasons why fake news is produced, the aim is to reach a large audience. The challenge of fake news denial is more linked to reception than to production: why do users share them massively? In response to this question, it is assumed that reproducing of fake news via sharing and liking has become a social activity. In the COVID-19 era, people can be seen by their partners and family members as resources to nourish everyday conversations, gain attraction, or affirm a certain position about a social problem. Socially, a lot of fake news appeared to tell people about subsidies, the alleviation of traveling measures, the interruption of public transportation, the cutting-off of water and electricity supplies, and the compensation of Sub-Saharans residing in Morocco. All these types of information were categorically denied by the MAP. One important social sphere targeted by fake news is religion. In this situation, the MAP refuted a number of false information on the reopening of mosques and the restoration of a partial curfew in the country for two days of *Aid Al-Fitr*. Finally, education was subject

to a lot of false information about the suspension of courses and the establishment of exceptional holidays, the resumption of classes, the holding of exams, the announcing of an invalid year for all levels of education except the 1st and 2nd year of the Baccalaureate, the compensation of private schools affected by COVID-19, the success of all students, and that tuition fees will be reduced for foreign schools.

Fake News on Government and Institutions

While the media and the internet are sources of information, they have also become tools for spreading false information. Concerning governments and institutions, false news can inspire doubt, fear, disgust, and panic. During the COVID-19 pandemic, the widespread of fake news by malicious people is meant to create panic. Interestingly, many out-of-the context-posts have targeted national and governmental institutions to mislead the public and to create an atmosphere of panic and fear. Misleading content that aims at deceiving readers is not new to the web: hoaxes and other conspiracy theories have been circulating widely since the beginnings of the pandemic. What is new behind this fake news phenomenon is that unjustified information is targeting the security system and henceforth lowering people's confidence regarding the ability of national institutions to curb the situation. Insecurity and fear of crime are building blocks of the fake news. Insecurity has become omnipresent in media production. The COVID-19 has brought the theme of crime into play. Some of the stories created in this period, denied by the MAP, highlight fear of delinquency and crime. To illustrate this, some examples are presented below.

Fake News Related to Security

- *Two videos circulated on social networks show individuals in Casablanca and Meknes throwing stones at law enforcement to protest against quarantine measures.*
- *A woman victim of a voluntary assault by police during the arrest of her brothers for violating the state health emergency.*
- *The state of health emergency fuels riots in many regions of the country.*
- *Criminal networks usurp the identity of doctors and nurses commit criminal acts*

pretending that they are health stuff that fight against COVID-19.
- *Looting of shops, supermarkets, and bank machines in several Moroccan cities.*
- *Dismantling of criminal networks which target medical personnel when they leave their workplace, opting for a criminal modus operandi that consists of wearing medical wearing, masks, and glasses so as not to be identified.*
- *A criminal band targets women when they withdraw money from ATMs.*
- *Looting of shops, supermarkets and ATMs in several cities.*
- *An official press release from Michelle Bachelet, High Commissioner for Human Rights, refers to a list of countries, including Morocco, where abuses have been observed while implementing health emergency.*

Fake News on Penitentiary and Correction

- *Prisons constitute a major problem in the management of the COVID-19 pandemic in Morocco.*
- *Prisons do not use enough protective measures in Moroccan.*
- *Prison inmates are malnourished and are not allowed to change their clothes during COVID-19.*
- *Prisons in Morocco are invaded by COVID-19.*
- *Prisoners in Ouarzazate suffer from lack of medical care and nutrition.*
- *Suspected cases of COVID-19 infection have been confirmed in prisons of Kenitra and Souk El Arbaa.*
- *Prisoners contaminated with COVID-19 were granted 5,000 dirhams.*
- *Prisoner in Tangiers died of COVID-19.*
- *Prison of Sefrou registered 22 new cases of COVID-19.*
- *COVID-19 is a wreaking havoc in penitentiary establishments in Morocco.*

Recommendations

Responses to the fake and misleading news are diverse. To understand the mechanics that create false information means that we need to search the intention behind false stories, their producers, and what they attempt to denigrate. This is an important multidimensional framework that researchers need

to work on to give answers to the public in time of crises. The majority of the fake news shared during the COVID-19 pandemic targeted Moroccans' basic spheres of life. It is believed in this work that the bulk of fake information verified and denied by the MAP are based on several cognitive biases to influence the public's perception and make them lose confidence in governmental institutions, authorities, medical personnel, law enforcement, among others. To face this situation, it is envisioned in the present study that coercive measures alone are not enough to prevent production of fake news. Citizens' awareness must be maximally improved so that individuals can differentiate between false and real information. In this context, it is highly recommended that technical measures related to fact and cross checking should be restored to verify false information, an initiative that might work towards improving media and experts who control the content posted on media outlets and SNS platforms; it is unlikely that cross checking media services alone, as it is the case of MAP, cannot stop the spread of disinformation. Therefore, education and awareness-raising must be at the heart of the government's long-term strategy to confine fake news propagation. This must include productive and receptive dimensions that encompass critical thinking skills and analysis, particularly in relation to media and SNS culture. This research recommends that individuals need to be initiated to information cross-checking tips including contextualization techniques and credibility checking tools of sources. To contextualize this knowledge, it would be advantageous to establish and insert media literacy education to raise people's immunity towards misinformation sharing. Surely, media literacy is an educational critical way of checking and believing in unverified information that is very often dictated to freeze individuals' capacity for

reasoning. Interestingly, instilling media literacy in schools would probably be an effective approach. Actually, media literacy and critical thinking would give citizens more vigilance and awareness towards the multitude of information they are exposed to every day.

V. CONCLUSION

The dissemination of false information has threatened the national endeavor to combat COVID-19 on many levels. The COVID-19 crisis in Morocco, beyond its health and economic impact, has highlighted another scourge: the spread of fake news is creating feelings of fear, panic, and perdition. To contain the propagation of false information in the COVID-19 pandemic era, press agencies and services, including the Maghreb Agency Press, took the responsibility to cross-check, verify, deny, and contain lies and rumors on COVID-19 that media and social networking sites have disseminated through three months. On another scale, the Moroccan government has implemented firm policies to restrain and regulate creation and dissemination of misinformation; the regulations, when restored, have become an important stabilizing factor in a society already fearing a health crisis. Practically, Morocco has adopted a law on fake news, which the authorities are using against propagators and diffusers of fake news. It is an opportunity to coerce unethical journalism and anyone likely to create and share false information on the media and SNS platforms. In COVID-19 pandemic era, posting and sharing of false and unverified information violate first and foremost media ethics and conduct. No wonder then, if some people claim that fake news creating and sharing in this situation is an anti-nationalist act.

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