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Information Pollution in the Digital Space and Its Impact on Algerian Societal Security

التلوث المعلوماتي في الفضاء الرقمي وأثره الأمن المجتمعي الجزائري

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Abstract:

This study seeks to shed light on the phenomenon of information pollution increasingly observable within the digital sphere, particularly across social media platforms, and on its profound impact on Algerian societal security. This impact manifests through the erosion of social values and moral norms, the incitement of sectarian tensions and cultural identity conflicts, as well as the generation of a crisis of mistrust between citizens and official governmental channels.

The study further concludes that Algeria, in recognition of the challenges brought about by developments in the digital environment—most notably the widespread expansion of internet access and the proliferation of social media platforms—has sought to safeguard its information ecosystem. This has been pursued through the establishment of specialised security bodies dedicated to information security and the digital space, alongside the development of a comprehensive legal framework aimed at confronting cyber and digital crimes.

Keywords: Information Pollution; Digital Space; Societal Security; Digital Security.

المخلص

تهدف هذه الدراسة إلى تسليط الضوء على ظاهرة التلوث المعلوماتي التي أصبح يشهدها الفضاء الرقمي وبالخصوص وسائل التواصل الاجتماعي، وأثرها الكبير على الأمن المجتمعي الجزائري من خلال تهديد قيم وأخلاقيات المجتمع، وإثارة الفتن الطائفية ونزاعات الهوية الثقافية، وأيضاً لما تخلقه من أزمة انعدام الثقة بين المواطن والقنوات الحكومية الرسمية. ومن خلال هذه الدراسة توصلنا إلى أن الجزائر وإدراكاً منها للتحديات التي يحملها التطور الذي يشهده الفضاء الرقمي، وانتشار الانترنت وتعدد وسائل التواصل حاولت حماية المنظومة المعلوماتية من خلال استحداث أجهزة أمنية مختصة في الأمن المعلوماتي والفضاء الرقمي، وكذا إرساء ترسانة قانونية لمجابهة الجرائم الالكترونية والرقمية. الكلمات المفتاحية: التلوث المعلوماتي، الفضاء الرقمي، الأمن المجتمعي، الأمن الرقمي.

1. INTRODUCTION

The internet and social media have evolved into expansive, user-friendly platforms for the dissemination of information, transforming into open arenas for debate, ideological expression, knowledge production, and the sharing of emotions. These platforms possess remarkable appeal and attract vast user bases spanning all social strata and age groups. What is particularly troubling, however, is the extent to which the content circulated across these platforms every second—capable of reshaping the mindsets, perceptions, and lives of billions of individuals—is verified, authenticated, and assessed against established standards. Algeria, like many other countries, faces this challenge and is striving to address it, as Algerian societal security has increasingly come under threat due to information

pollution within the digital sphere. This risk is exacerbated by unregulated debates on identity-related issues conducted in forums not designed for such discussions and beyond effective oversight, as well as by the proliferation of pages with questionable objectives that seek to undermine Algeria's social cohesion and societal security.

Research Problem:

This paper addresses the issue of the proliferation of misinformation, fake news, and rumors—commonly referred to as information pollution—within the digital space, particularly on social media platforms, and examines their repercussions on Algerian societal security.

Research Methodology:

The study adopts the descriptive approach, as it is the most appropriate method for the nature of this research. This approach focuses on examining the

phenomenon as it exists in reality and provides an accurate and systematic description of its key features and dynamics.

The Copenhagen School of Security:

The Copenhagen School's security framework is employed as an analytical lens, given its relevance to the study of societal security, which constitutes one of the five core security sectors essential to achieving comprehensive security according to this approach.

Structure of the Study:

The study is organized into three main sections:

Section 1: Examines the conceptual framework of the study.

Section 2: Analyzes the impact of the digital space on societal security.

Section 3: Focuses on Algerian societal security and the challenge of information pollution in the digital sphere.

2. Examines the conceptual framework of the study.

2.1. The Information Pollution:

Information pollution refers to the coexistence and intermingling of accurate and inaccurate information. One of its most common manifestations lies in the deterioration of the quality and reliability of information as a result of the introduction of heterogeneous elements, the presence of irrelevant content, and the overlap and confusion of information. In the contemporary era, information is produced and disseminated at unprecedented speed across the globe—often within fractions of a second—through electronic communication tools. The acceleration of information production and transmission cycles has led to what is commonly described as an information explosion. One of the major consequences of this phenomenon is information pollution, as numerous sources intentionally or unintentionally disseminate misleading content. As the volume of information continues to expand, controlling and regulating it becomes increasingly difficult. Consequently, in environments lacking effective oversight, some governments and actors contribute to

information pollution by circulating vast quantities of unhelpful, inaccurate, incomplete, or distorted information.¹

In the modern time, Dr. Paek-Jae-Cho, the former Chief Executive Officer of the Korean Telecommunication Corporation (KTC), is credited with formally articulating the concept of **information pollution**. Dr. Cho addressed this concept during his intervention at the fourteenth conference of the International Telecommunications Society (ITS), which is held biennially, where he discussed the adverse side effects of information technology and its unintended societal consequences in the form of pollution. Information pollution is thus understood as a byproduct of the information revolution, whereby individuals are increasingly exposed to contaminated information—content that is of limited relevance, unreliable, lacking in accuracy and deficient in substantive value—thereby exerting a broader negative impact on society as a whole.²

Wardle and Derakhshan define information pollution as an umbrella term encompassing (misinformation)—the sharing of false information without the intention to cause harm; (disinformation)—the deliberate dissemination of false information with the intent to inflict harm; and (malinformation)—the circulation of factually accurate information with the purpose of causing harm. As anticipated, information pollution has increasingly attracted scholarly and political attention as a defining feature of political life in the digital sphere, and more specifically as a form of information or media warfare, wherein information is strategically manipulated to secure a competitive advantage over an adversary. From this perspective, information pollution is not historically novel; however, its scale and potential impact are unprecedented. In the contemporary context, polluted information can be disseminated instantaneously across countless platforms, rendering modern information pollution particularly pervasive and hazardous. Moreover, polluted

information exacerbates existing social and cultural divisions, fosters public skepticism toward legitimate news producers, and diminishes incentives for investment due to growing distrust in reported information.³

All of these subcategories of information can be disseminated intentionally – through either automated social media accounts, online platforms, interest-driven groups, and chat rooms, among others – or unintentionally, when such content is shared by users on social media platforms or picked up and amplified by mainstream media outlets.⁴

2.2.Digital Space

While the physical world is constrained by finite resources and bounded social relations, the digital space constitutes a construction of binary data, activated through electrical currents and inscribed onto microchips. Digital devices interconnected via fiber-optic cables, data centers, and electrical networks mediate access to this space. These devices function as instruments that expand human perception of the world. As Tuan aptly observes, “Tools and machines enlarge man’s sense of space and spaciousness.... A tool or machine enlarges a person’s world when he feels it to be a direct extension of his corporeal powers”.⁵

The development of the internet brought about a profound transformation in the world, as it—alongside computer systems—provided, for the first time, immediate access to new information and the ability to transmit written messages within seconds. At its inception, exclusively governments used the internet; it was a state-controlled project that relied on programmers and technical experts to operate it. Subsequently, as access to the internet gradually expanded to the public, it became increasingly evident that it would evolve into something far greater in scale and significance.

Many believe that the world is currently experiencing a second revolution in internet technology, referring to it as the “Web 2.0.” The twenty-first century has

been marked by its transition to mobile technology, where people no longer have to sit by their computers in order to access the internet. The development of smartphones allows people to bring their phone with them anywhere they go, continuing their instant text communications throughout the day. In addition, the plethora of mobile satellites around the world has now made it possible for people in less developed areas of the world to join in on these conversations. With mobile devices and the internet promoting instant, yet perpetual communication, the way individuals live their lives has changed, making it much easier to get into contact with someone.⁶

Social networking platforms like Facebook, Twitter, Instagram, LinkedIn and Snapchat have further strengthened this digital age. Empirical studies show that mobile phone users typically spend no less than 3.1 hours per week on social networking sites and experience a constant need to stay informed about the latest news. Another study found that approximately 70% of adult Internet users get most of their news through links shared within their personal social network on Facebook, while 36% get news and information through Twitter. Platforms like Facebook alone have around 845 million monthly active users, while Twitter is reported to generate around 175 million new tweets every day.⁷

2.3.Societal Security

Barry Buzan is regarded as the first scholar to introduce the concept of societal security, with the aim of addressing the theoretical and conceptual gaps that emerged in security studies in the post–Cold War period. Buzan defined societal security as the capacity for continuity and sustainability under acceptable conditions of development and change in a society’s traditional patterns, such as language, culture, and shared fundamental values. In other words, societal security is intrinsically linked to the implicit protection of the collective, commonly agreed-upon values among members and groups within society—values that confer upon the society a distinct and

recognizable identity.

“National security” long constituted the central concept within the field of security studies; paradoxically, however, relatively little attention was given to the nation itself as a unit of security. The analytical focus was instead placed on the political and institutional unit—the state—and consequently on the political and military sectors. If the nation is adopted as the primary unit of analysis, an additional sector comes into view, namely the societal sector. Societal security is closely linked to political security, yet it remains conceptually distinct. While political security concerns the organizational stability of states, governing systems, and the ideologies that confer legitimacy upon governments and states, societal security is defined as the defense of identity against a perceived threat, or more precisely, the protection of society against threats to its identity⁸. As Weaver argues, although states may feel territorially secure in contemporary world politics, social identity is increasingly weakening. He emphasizes that if a society is unable to protect its identity, it cannot continue to exist as a society.⁹

3. Societal Security in the Digital Space

3.1. The Identity Question in the Digital Sphere:

When addressing societal security in the digital space, a range of fundamental questions inevitably arises. Are we witnessing the disintegration of systems that allowed those in power to impose identities upon ‘others’? What does the upsurge of these new freedoms mean for identity today? Can the new inclusiveness that digital technologies have given us be understood as the fulfilment of campaigns waged by postmodernism, postcolonialism, feminism and other critical theories in the late twenty-first century against the authority and centrality of mainstream narratives and the visions they promulgated of the world and ourselves? Has the global explosion of digital communication and digital self-representation in the twenty-first century at last delivered the wished-for unchaining of

knowledge and consequently enabled better understanding of plurality and diversity of identity? To consider such questions it is necessary first to look at key features of the digital landscape and particularly those that represent dramatic differences from the twentieth century.¹⁰

One of the defining characteristics of the early twenty-first century is the profound entanglement between body and machine – an entanglement that was anticipated by cyborg theories of the late twentieth century and realized through the Internet. New technologies are fundamentally changing the way we see, feel and think. They immerse us in a non-human world of constant interaction with digital devices and screens, blurring the boundaries between human and non-human. Many of these “things” are not merely around us; they are within us—in our bodies, beneath our skin, and embedded in our sensory systems.

Yuval Noah Harari situates this phenomenon within the broader historical context of human evolution, writing that “at the beginning of the third millennium, liberal humanism is giving way to techno-humanism.”¹¹

Digital technologies affect the way we remember, how we perceive ourselves and others, how we deal with aging, illness, and death, how we interact with one another, how we communicate, what we value, and how we engage with the world. Every corner of our daily lives is being penetrated—they impact our physical, mental, and ethical selves. They transform the ways we think, speak, and write, and in doing so, they reshape our narratives—about the self, the nation, and the world. It is striking that many of the most transformative technologies today have been developed only within the past fifteen years.¹²

Almost overnight, the traditional monopoly over powerful, state-sanctioned narratives was broken, granting the public free and instantaneous access to vast networks of information via the Internet. The Internet quickly became more than a mere source of data; it also emerged as a

portal for endlessly renewed pleasure, where information increasingly competes with entertainment—and advertising—for attention in what David Carr has called the “economy of nothing.”

Yet, while the new world may appear to be one of abundance, it is also a minefield. Andrew Keen summarizes this paradox in his phrase the “catastrophe of abundance.”¹³

What is the impact of these developments on traditional narratives that were the focus of critical theories in the late twentieth century? While the issue has begun to be considered in terms of the democratic effects of the World Wide Web, the larger question remains: have digital platforms and tools liberated the required dissemination of knowledge and history from the grasp of formal institutional narrative operations and returned it to the hands of the people?

The answer is certainly yes—but answering “yes” is itself a cause for concern.¹⁴

It appears that the Web has indeed begun to realize the subversive aims shared by many twentieth-century theories. In fact, many of these theories—through their promotion of a decentered, fragmented, and non-unified self, and through their critique of narratives claiming to represent subjectivity and external reality—imagined (in ways that now seem strikingly prescient) and anticipated the World Wide Web long before its actual emergence

In every case, however, discernible signals point to the contemporary dilemma of identity in the digital age, centered on tensions between freedom and chaos, order and dissolution, presence and absence. It is as though, by working to expose the hidden intersections within traditional written narrative forms—whose smooth surfaces had conveyed an appearance of truth and closure—these theories were opening the path toward digital forms of communication that had yet to be invented.

In such forms, narratives are so divergent and conflicting that no expectation

of closure or finality remains. Truth itself is relativized through the very dynamics of genre, operating through constant updating and change, across gaps and multiple pathways that tend to increase choice and plurality rather than completeness and certainty.¹⁵

In the digital world of the twenty-first century, knowledge—long preserved for centuries in the hands of a few—suddenly and almost miraculously became accessible to the many. This shift was so pronounced that in 2006 Time magazine named its “Person of the Year” as “You.” The cover of the special issue dedicated to this theme proclaimed: “You—yes, you—you control the Information Age. Welcome to your world.”

The list of defining features of this new world reads like a manifesto for late twentieth-century critical theorists who sought to liberate history from the mantle of authority that had been reinforced over many centuries through narratives claiming to represent reason, civilization, and humanity.⁴ With the rapidly accelerating use of digital technologies and the collective adoption of social media that followed shortly after Time magazine’s announcement, freedom and power appeared to be shifting decisively toward individuals, while networks and databases seemed finally to be replacing—and dismantling—the old grand narratives.¹⁶

Among the dangers posed by the Internet to individuals is information pollution, particularly through social media networks, where pages and platforms promote emerging forms of violence, extreme emotions, stereotypes, and inflammatory discourse.

In the case of China, the rapid spread and widespread use of social media have created new avenues and possibilities for raising critical voices against the Chinese Communist Party from within China itself, as well as for migrants to challenge the forms of domination imposed upon them by both their homeland and their current host country.¹⁷

3.2. Information Pollution and Individual Awareness.

There is a growing body of research on the reception of misinformation and information pollution—namely, how exposure to such content affects citizens' opinions, attitudes, and behaviors, as well as the social and demographic variables that shape the vulnerability of particular groups to this phenomenon.²⁰ From a macro-level perspective, some scholars have examined the structural conditions within countries that lead to greater or lesser resilience to information pollution. In this regard, Humprecht conducted a cross-national comparative study across eighteen countries, identifying factors such as levels of social polarization, political populism, trust in news, and the strength of public service media, among others.²¹

At the individual level, exposure to information pollution is mediated by several factors, including political ideology, age, gender, and the degree of interest in public affairs. With respect to public perception.

As Nielsen and Graves (2017) point out, the distinction between fake news and news is a matter of degree rather than kind, as there exists an expansive continuum ranging from satire—which audiences do not regard as news despite its genuine relationship to reality—to deliberately fabricated news produced for political purposes, and extending further to yellow or sensational journalism, propaganda, and covert advertising.¹⁸

Possible connections can also be established between information pollution and the emotional states experienced by people exposed to it. However, it is not a linear process, as it is mediated by various factors. Thus, a person who is aware of the satirical nature of news when encountering it may experience amusement; However, if the same content is considered factual, it may cause surprise or disbelief.

In contrast, highly partisan and polarized content may generate outrage or self-affirmation, depending on the

ideological position of the recipient.²⁶

Rumors may generate curiosity, confirmation bias, or distrust, depending on the subject of the rumor and the source through which it is disseminated.¹⁹

Moreover, given the dynamics of the digital system, recipients of misinformation may themselves become deliberate disseminators of that misinformation, thereby generating chains of circulation in which the original intentions of those who initiated a cycle of false information are no longer discernible. In this way, information initially produced as satire or as a journalistic error may be amplified and repurposed for manipulative ends.

In such contexts, the verification of information—even through fact-checking practices—rarely achieves consensus, owing to the biases and motivated reasoning that underlie information consumption habits among broad social groups. This, in turn, leads to the belief in and/or sharing of information that confirms one's pre-existing views.²⁰

4. Algerian Societal Security and the Problem of Information Pollution in the Digital Space

4.1. The Digital Situation in Alegria

In order to examine the impact of information pollution in the digital space on Algerian societal security, it is necessary to be familiar with the digital situation in Algeria. Available data indicate that there were 32.09 million Internet users in Algeria at the beginning of 2023, with Internet penetration reaching 70.9 percent. During the same period, Algeria was home to 23.95 million social media users, representing 52.9 percent of the total population. In addition, the number of Algerians with active mobile cellular subscriptions reached 48.53 million, a figure equivalent to 107.2 percent of the total population.²¹

4.2. Population of Algeria in 2023

The total population of Algeria reached 45.26 million in January 2023. Data indicate that the population increased by 719,000 people (1.6 percent) between 2022 and 2023. Females accounted for 49.1

percent of the population, while males represented 50.9 percent. At the beginning of 2023, 75.0 percent of Algeria's population resided in urban areas, compared to 25.0 percent living in rural areas.²²

4.3.Social Media Users and Mobile Connectivity in Algeria

By the beginning of 2023, available indicators from digital advertising and telecommunications sources point to a broad diffusion of online platforms within Algerian society. User estimates suggest that YouTube and Facebook constituted the most widely used platforms, with audiences exceeding 22 million and 20 million users respectively. Other social networks displayed more moderate levels of penetration, as Instagram accounted for fewer than nine million users, LinkedIn for just over three million, and Twitter for slightly more than one million users. In parallel, national mobile usage patterns reveal a remarkably high level of connectivity, with GSMA Intelligence reporting approximately 48.53 million active cellular subscriptions during the same period. This figure does not imply a demographic anomaly, but rather reflects the common practice of holding multiple mobile lines—often differentiated by functional or occupational needs—which routinely inflates subscription counts beyond population totals.²³

Taken as a whole, these data highlight the consolidation of a densely networked digital sphere in Algeria, characterized by sustained and diversified engagement with online communication technologies. While such connectivity enhances access to information and social interaction, it also intensifies vulnerability to the adverse effects of uncritical digital consumption. In particular, the growing circulation of distorted, excessive, or unreliable information within online environments contributes to heightened uncertainty, undermines trust in communicative spaces, and poses long-term challenges to social cohesion.

4.4.The Impact of Information Pollution on Algerian societal security

Several communication indicators point to serious threats to Algeria's social fabric. These include questionable pages that provoke divisive and unproductive discussions, often in a Byzantine manner, particularly related to elements of national identity, language, religion, cultural history and geographical affiliation. Such discussions are often distorted through emotional manipulation, which risks undermining core national values and symbolic capital. Several websites and social media networks—particularly Facebook pages—have reported numerous cases of attacks on the state and its symbols, with some individuals resorting to verbal aggression to express their views, opinions and positions on national issues.

The situation has worsened, and polarization has intensified, especially during presidential elections. When former President Abdelaziz Bouteflika sought a fifth term, episodes of tension and protest communication emerged, involving various forms of dissent saturated with verbal violence, including insults, curses, and defamation. This symbolic violence, initially directed at the president and his supporters—particularly members of the ruling parties—eventually expanded to affect a wide range of state institutions.²⁴

Some of these threats to societal security manifest most prominently in attacks on the authority of the state and the symbolic sanctity of its institutions. Violations of the sacred are evident in attacks on revolutionary symbols with a retaliatory undertone, as well as in occasional skepticism toward the struggles and achievements of certain figures of the Algerian Revolution, accompanied by mockery of their historical contributions. Such distortions often involve the selective dissemination and interpretation of media statements, sometimes infused with a retaliatory framing to the point of casting doubt on individuals' loyalty.

Cases of conflict and religious or sectarian intolerance further suggest imminent threats to societal cohesion. The

politicization of religion and its instrumentalization have generated significant paradoxes in the role of religion within the social project.²⁵

We have also observed an increasing intensity of verbal violence that fuels cultural tension, amplified by new media and the diverse applications of its communication platforms. This verbal aggression has migrated from its original private spheres—sometimes limited to small primary groups such as circles of peers—into the electronic world and open digital spaces. It occasionally encompasses confrontational discussions that exacerbate the multidimensional crisis of a political sphere that is intellectually and morally bankrupt.

In this context, concepts charged with hostility and retaliatory sentiment have emerged, particularly during one of the pivotal historical moments of the February 22, 2019, protest movement (Hirak). Terms imbued with violent connotations—such as “traitors,” “slaves,” “freemen,” “internal agents,” and “foreign agents”—were circulated in the digital communicative space, sowing doubt and undermining confidence in peaceful coexistence.²⁶

Hate speech content creators primarily focus on two key strategies:²⁷

- **Audience manipulation:** This involves citing information, data, and opinions strategically designed to serve specific actors or interests, thereby diverting audiences from essential truths and reducing the credibility of the disseminated discourse. The content often includes propaganda, disinformation, hatred, lies, exaggeration of differences, fabrication of controversies, sensationalism and incitement to discrimination.

- **Obfuscation of News Source Credibility:** In this strategy, creators exploit non-professional journalistic practices on platforms like Facebook, sharing news and information from sources that are biased or unreliable. The aim is to sow division, incite discrimination and racism, and perpetuate social conflicts without relying on accurate

or authoritative sources.

Hate speech dissemination often employs a set of rhetorical appeals, including logical appeals, emotional appeals, and fear appeals:

Logical appeals involve citing information and evidence that support the promoted idea of hate, as well as the factual events associated with it. This approach reinforces the audience's perception of the narrative through references to the statements and opinions of selected individuals who advocate the promoted idea. Statistics and data are also used to substantiate these claims.

Emotional appeals rely on opinion leaders and celebrities to endorse these ideas, leveraging their broad followings to influence public perception. Audiences often adopt the views and orientations of these figures regarding the issues addressed by the discourse.

Fear appeals are used to evoke anxiety in the audience regarding the consequences of rejecting the promoted ideas. This may lead individuals to isolate themselves from alternative viewpoints embraced by the general majority. The messenger's credibility with the audience is also exploited, encouraging the adoption of their intellectual stance without hesitation.²⁸

Former Minister of Communication Ammar Belhimer had previously warned of the targeted and systematic assault on Algeria through a barrage of verbal attacks originating from abroad. These digital communicative spaces play ambiguous roles and lack the foundational structures necessary for the emergence of a constructive, independent media authority.

This chaotic media practice has disrupted the core value system of both society and the state, pushing toward the erosion of social values and principles while promoting what may be described as a culture of triviality and confusion. This is achieved by encouraging and amplifying deviant practices within the digital communicative environment, such as undermining the

legitimacy of national heroes and revolutionary symbols, dismantling role models, constructing illusory heroes, and the widespread circulation of scandals and transgressions. Such practices are often accompanied by retaliatory gratification in discourses or decisions directed at political authority, along with the systematic demonization of public officials.²⁹

These are serious indicators that contribute to the dismantling of communication bridges and the widening of the gap between rulers and the ruled, between authority and society. As a result, objective critical reasoning diminishes, giving way to score-settling, reactive revenge-driven responses, and a decline in utilitarian citizenship. This is further compounded by a contradictory disruption in the logic of rights and duties within civic behavior. Collectively, these phenomena signal the growing prevalence of psychological and socio-cultural pathologies within the digital environment.³⁰

4.5. Individual Awareness in Algeria and Information Pollution in the Digital Space

The impact of information pollution is also closely linked to the level of individual awareness. A large segment of Algerian society recognizes the importance of information and its value in everyday life across various domains, and increasingly prefers to rely on the digital environment as a primary source of information. However, certain social groups—particularly individuals with limited educational attainment (pre-university level) and those aged over fifty—often lack the necessary skills to navigate the digital environment effectively, especially in terms of information searching. Their practices tend to focus primarily on general and immediately accessible information, without adequately directing their searches through the use of advanced techniques or available strategic tools. This situation underscores the need for continuous self-training and sufficient awareness-raising initiatives led by information institutions and relevant bodies, especially given that the second group (older adults) bears a significant

responsibility for the social and informational socialization of their families (Lhamza and Laajal Hamza 2020).

There is a noticeable dysfunction in how digital information content is handled, manifested in two interrelated dimensions. The first concerns awareness of information pollution in the form of inaccurate and misleading information. The second, however, lies in the disproportionately weak response to such harmful content. Indeed, several negative informational practices are widely observed, including the sharing of false posts on social media platforms such as Facebook, as well as the dissemination of polluted information more broadly.³¹

Legal Responses to Information Pollution in Algeria's Digital Environment

In response to the growing risks posed by information pollution, Algerian decision-makers have sought to contain the phenomenon through a series of legislative interventions aimed at limiting its societal repercussions. Central to these efforts was the amendment of the Penal Code under Law No. 20-60 of April 28, 2020, whereby the legislator explicitly criminalized the dissemination of false and malicious information through the introduction of Article 196 bis, reflecting an official recognition of the destabilizing potential of misinformation within the public sphere.³²

Alongside penal provisions, the Algerian authorities moved to regulate digital media practices by issuing Executive Decree No. 20/332, which defines the conditions governing online media activity, including the right of reply and correction via electronic platforms. This decree represents an unprecedented attempt to impose regulatory order on a previously unstructured field, while simultaneously supporting the media sector in adapting to the digital transformation of journalism. Nevertheless, earlier legislative frameworks—most notably Organic Media Law No. 12-15—devoted only limited attention to electronic media, addressing it in a fragmented manner that failed to match

the scale and complexity of the challenges raised by digital communication since its emergence in Algeria.³³

Furthermore, the adoption of the 2020 Law on the Prevention of Crimes of Discrimination and Hate Speech introduced a comprehensive set of sanctions targeting discriminatory practices, their manifestations, and acts of incitement or participation therein³⁴ (Dou 2021). Despite the normative ambition of these legal instruments, their practical effectiveness remains questionable. The Algerian socio-digital environment does not yet appear fully prepared to internalize such regulatory measures, which presuppose a prior level of legal literacy and a deep societal awareness of the dangers inherent in the circulation of fabricated and misleading content.

From this perspective, the rapid legislative turn toward punitive and criminalizing approaches may be viewed as premature, particularly in the absence of consolidated cultural and educational frameworks capable of fostering a genuine culture of legality and civic responsibility. The persistence of structural deficiencies in human development and information literacy further limits the capacity of these laws to achieve their intended objectives, rendering legal intervention alone insufficient to address the multifaceted nature of information pollution.³⁵

5.CONCLUSION

Information pollution as a by-product of digital communication systems has demonstrated its severity over time. Algeria, through the increasing integration of its citizens into these networks, is particularly exposed to this risk. As a result, social cohesion has weakened, which has a direct impact on Algerian societal security. This situation has led the State to sound the alarm and enact a set of legislative measures aimed at preventing and reducing the risks associated with this emerging threat. The current study reached several key conclusions:

- The spread of information pollution in the digital sphere, especially on social media platforms, is often driven by pages running under fake names and identities, which significantly complicates monitoring and inspection by competent authorities.
- The widespread presence of information pollution, along with the rapid spread of rumors and misinformation on social networking sites, is largely responsible for the ease with which such content can be shared and disseminated.
- Information pollution in the digital environment constitutes a tool to undermine the societal security of states by shifting the debate over identity and national values away from universities and research centres, and into dubious online spaces managed by pages with opaque and often unknown purposes.
- The digital sphere—particularly social media platforms—represents one of the most effective channels for the spread of false and misleading information by individuals or criminal groups that promote violence and disorder.
- The digital environment and especially social media have played an important role in spreading hatred.
- Algeria has come to recognise the seriousness of information pollution within its national digital space, as evidenced by the legal arsenal it has adopted and the security measures it has put in place.

Finally, it must be To raise awareness among users of the digital sphere – especially young people – of the importance of refraining from sharing news and information without verifying their accuracy and Banning and shutting down websites and pages that incite

communal tension and spread rumors under the authority of competent security bodies and Designing and launching websites and online pages that promote a culture of reporting among digital space users, encouraging them to flag suspicious and misleading pages.

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