midil@mu.edu.lb

MU
MCFA

First International Conference on Digital Journalism and Innovative Media Industry

MIDIL+ Media Industry, Development and Innovation Lab in Lebanon

2023

Journal of Media Industry, Development and Innovation lab

Peer-Reviewed Proceedings of the International Conference on Digital Journalism and Innovative Media Industry

VOLUME ONE

PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON DIGITAL INNOVATIVE AND MEDIA INDUSTRY

midil.mu.edu.lb

JOURNAL OF MEDIA INDUSTRY, DEVELOPMENT AND INNOVATION LAB

Peer-Reviewed Proceedings of the International Conference on Digital Journalism and Innovative Media Industry

2023

AL MAAREF UNIVERSITY

FACULTY OF MASS COMMUNICATION AND FINE ARTS

DEPARTMENT OF JOURNALISM & DIGITAL MEDIA

JOURNAL OF MEDIA INDUSTRY, DEVELOPMENT AND INNOVATION LAB

Peer-Reviewed Proceedings of the First International Conference on Digital Journalism and Innovative Media Industry

Volume 1, August 2023

BEIRUT, LEBANON

CONTACT INFO
Airport Avenue, Beirut, Lebanon
P.O. Box 5078/25

Tel. 00961 1 820930
E-mail: midil@mu.edu.lb

Forward

Professor Ali Alaeddine*

This First International Conference on Digital Journalism and Innovative Media Industry of 2022 came at the crossroads of a number of major events that our beloved country Lebanon is going through, and in the context of an ongoing development of our beloved Al Maaref University.

At the national level, this Conference was the first of its nature in the field of journalism and media studies in Lebanon. It comes after the recede of the Covid-19 pandemic. Thus, this in-person Conference was an indication of the continuity of scientific activities in which we are looking to promote and support because they are the essence of producing scientific knowledge.

In fact, we cannot ignore the ongoing economic and financial crises in our country and their negative impact on the higher education sector. The university's decision is to move forward with the academic progress in methodological steps.

At the higher education level, this Conference marked the end of Al Maaref's seventh academic year which witnessed the highest increase in the number of enrolled students and witnessed the highest employment rate of graduates which exceeded 70%.

Al Maaref University entered the stage of developing and implementing its second strategy for the next five years. This strategy is based on the significance of scientific research, entrepreneurship, and networking with domestic and international institutions and the surrounding community with the aim of confronting urgent challenges at various levels. On the international level, the university will enter the stage of building scientific partnerships with abroad universities and scientific institutions.

In this context, this Conference and its proceedings mark the first academic activity of MIDIL (Media Industry, Development and Innovation Lab), and we hope that MIDIL's annual conferences achieve the goals set for it. In this vein, I would like to thank the Faculty of Mass Communication and Fine Arts, MIDIL's Organising and Scientific Committees and all those who worked in preparing for the Conference and its proceedings.

The digital fourth estate has opened the door wide for enabling informational tools to employ the developments of digitalization and artificial intelligence in many communicative aspects in journalism and media industry, such as in innovative newsrooms, news-gathering, editing process, transmitting information to the public and identifying its impact on the societal levels. As a result, the first International Conference on Digital Journalism and Innovative Media Industry is in the context of supporting digitalization that serves the individual and the society and enhances the process of the formation of a new press in the service humanity, rather than being a data package just in the service of technical development.

Again, I thank the Conference's organizing and scientific committees and all the team members at Al Maaref University for their hard work and dedication for academic and research excellence. I hope that MIDIL's conference and its proceedings advance the media, the academic and the research status quo in Lebanon and enable the academics and the researchers to keep pace with technological development that should be employed to serve humanity and to master life with wisdom and knowledge.

* President of Al Maaref University

CONTENTS

PREFACE
TOWARDS A DIGITAL FOURTH ESTATE

[1]HATEM EL ZEIN
Email: hatem.zein@mu.edu.lb

A radio producer asked me four years ago about the difference between data and information in the context of presenting Luciano Floridi's scholarly-amazing book, the Fourth Revolution.

Although I have answered the question rightfully, I did not realise that data and information govern our lives to the extent that some of us are oblivious to our ignorance. Before that interview, nearly a year ago, particularly in September 2019, I had participated in an academic conference in the German city of Bonne. I had a golden opportunity to explore a new path of human knowledge. A path on how to approach journalism and media studies in the modern world that is the world of digits, the world of Machine Learning (ML), a world of Artificial Intelligence (AI), a world of visible and invisible agents who communicate, and we may not recognise that they communicate and share data.

Al Maaref University conducted its first international conference, "The First International Conference on Digital Journalism and Innovative Media Industry (ICDJIM-1)," with a venue in Beirut City on July 1 & 2, 2022. Several papers were selected within the scope of topics discussed above to be included in this edition. In my capacity, as the coordinator of the noted conference, I would like to thank personally and on behalf of the Faculty of Mass Communication and Fine Arts of Al Maaref University, Professor Andrius Vaišnys. Also, special thanks to the Journal's management of Žurnalistikos Tyrimai (i.e., Journalism Research) established by the Faculty of Communication of Vilnius University for their collaborative and positive gesture to publish six peer-reviewed papers and the Preface in a special edition. I would like also to thank Professor Hussin Jose Hejase for his constructive comments, suggestions, editing, and re-reviews of the selected papers for publishing in this proceedings.

This paper, Towards a Digital Fourth Estate, has postulated a question that hinges around the principal theme of ICDJIM-1: Do the new media and journalism liquify knowledge?

This question imposes hypothetical perspectives on how individuals and researchers approach this inquiry. In addition, it requires presenting denotations of its conceptual terms since their meanings cannot be taken for granted.

To be methodological, I distributed a pilot survey questionnaire to some students whose specialisation is communication and majoring in journalism, digital media, radio and television, public relations, and advertising. 145 respondents from Al Maaref University and the Lebanese University filled out the online questionnaire.

67.6 % of the respondents selected that the journalists and reporters present information to the public, 17.2 % selected that the journalists and reporters present the truth to the public, and 15.2 % selected that the journalists and reporters present data to the public.

In responding to the question, "what is the most significant thing that the media outlets you follow

*1. Chairperson of Journalism & Digital Media, Faculty of Mass Communication & Fine Arts, Al Maaref University, Lecturer at Faculty of Communication, Lebanese University

present to the public," 53.8 % of the respondents selected entertainment, 26.9 % selected information, and 19.3 % selected data.

However, the questionnaire revealed that 86.2 % do not always trust the media outlets they follow.

What I have obtained from the survey is data or information. There is no doubt that what I have collected is considered data, and needs analysis to be informative and hence to be categorised in the field of knowledge since the meaning is buried in data (Frankel & Reid, 2008).

As noted earlier, what are the definitions of the terms that exist in the question postulated in this Preface? According to Kiran (2019, p. 16), "Data" comes from a singular Latin word, datum, which originally meant "something given." Its early usage dates back to the 1600s. Over time "data" has become the plural of datum. Data is raw and unorganized facts that need to be processed. Data can be something simple and seemingly random and useless until it is organized.

On the other hand, as the same author (ibid, p. 16) argues, "Information" is an older word that dates back to the 1300s and has Old French and Middle English origins. It has always been referred to as “the act of informing,” usually concerning education, instruction, or other knowledge communication. When data is processed, organized, structured, or presented in a given context to make it useful, it is called information.

For Floridi (2014), we are living in a world rooted in the infosphere that affects our understanding of ourselves as agents turned into connected informational organisms. We are living in the world of datasphere and our understanding is embedded in the skills that upgrade us from connected datafied organisms into connected informational organisms.

The question might not be always what went right or what went wrong?; it is the question of knowing what is going on. The issue is that the data organisms surround us. Our devices chat, talk, or in other words, they communicate with each other - shake hands. In this context, what are we? Are we agents turned into connected informational organisms, inforgs, as Floridi (2014) described us? Are we unstable inforgs surrounded by high waves of rapid changes and the influx of data, and this aligned with Zygmunt Bauman's description of our modernity-liquid society? Under the umbrella of liquid modernity, liquid journalism, which Mark Deuze coined this term, is a concept that describes the rapidly changing conditions and atmosphere of journalism and journalists (Deuze, 2008).

What did all these changes turn us to? Do they turn some of us into defensive humans aiming to protect our self-culture and self-identity through conservatively approaching communication and the media? Do we approach the status quo in an anarchist position without taking any action hoping that the chaos can be turned into order after time - Mikhail Bakunin (Create order out of chaos)? Alternatively, do we equip ourselves and the media institutions with the means of knowledge including digital literacy to prevent data from turning into an infodemic? I prefer to use the term datademic that aligns with datafied society. The data is everywhere, but the information is elsewhere.

The spiral data, as a result, needs to be processed under the umbrella of knowledge and boosting media literacy skills and up-to-date tools. Thus, we may have big data with no informational or little informational outcome. The danger resides in the new shape of our contemporary world in which it will be turned into datademic-societies versus informational-rich societies. Unfortunately, we are witnessing this form of dichotomy.

Although this paper posits the datasphere with skepticism and adopts the sensitizing nature of the emerging concepts relating to the media and its ecology, it does not adopt a postmodernist stance because of the individuality of validating or not what is considered information. In this vein, it calls for setting up criteria or measurements to validate what can be called information. Although these criteria or measurements reside at the core of empiricism, this means adopting sophisticated empiricism rather than naïve empiricism.

Do the new media and journalism liquify knowledge? It is a question that does not offend the media outlets or question criticism of their work. It is a question that we need to ask ourselves. How do we grasp knowledge from these outlets since we are described as "informational organisms" who want to know and since we have needs to be gratified (e.g., entertainment needs, educational needs, etc.)?

The essence of our existence is to know and to know we need to communicate and experiment. Even experimentation itself is a form of knowledge.

In this vein, communication and its mediums and outlets are carriers of data and information. Having delineated this point, the early theorists of communication - and semiotics - dealt with it as a scientific process in physics and mathematics rather than a social process or a human need. As a result of this scientific stance, theorists, namely Robert T. Craig, consider communication to be a practical discipline rather than a scientific discipline (Craig, 2018).

Furthermore, information theory itself has been formed in the field of mathematics (Ash, 2012). In addition, relevant courses from computer sciences infiltrated the journalism curriculum. Contrary to information theory, which is flavoured ontologically, data theory, which is flavoured epistemologically, as it is presented by Lindgren (2020), calls for the necessity to compromise between the influx of big data - the quantification of data and the qualitative tools needed to interpret the data, and hence to extract the qualified data that can be turned into information, and hence, acceptable knowledge.

However, the existence of social media has presented a fertile environment to discover further the social dimensions of communication.

The study of media and journalism under the umbrella of arts and social sciences does not mean that we should not consider other innovative and technical skills that boost the media industry and media literacy. In this context, it is significant for the concerned academics and researchers to revise the current validity of communication models and several theories in the field of communication and the media.

We cannot ignore the fact that the media is affecting our lives. Now the media outlets may present to the decision makers an opportunity to extract data and turn it into information. This technical process in which it can be algorithmic, and it can be humanistic as well if it considers the means of social justice in dealing with data. Thus, the digital fourth estate is not an individualistic movement nor a collective action. It should be a social-justice ecology that governs the life of a real democratic society.

Note: *This paper has been published in Žurnalistikos tyrimai, 2022. 16, pp. 8-13.*

References

Ash, R.B 1990, *Information theory*, Dover Publications, New York.

Bauman, Z 2000, *Liquid Modernity*, Polity Press, Cambridge.

Craig, R.T 2018, For a Practical Discipline. *Journal of Communication*, 68(2), 289–297.

Deuze, M 2008, The changing context of news work: Liquid journalism and monitorial citizenship. *International Journal of Communication*, 2(5), 848–865.

Floridi, L 2014, *The Fourth Revolution: How the Infosphere is Reshaping Human Reality*, Oxford University Press, Oxford.

Frankel, F. & Reid, R 2008, Distilling meaning from data. *Nature*, 455(7209), 30.

Kiran, D.R 2019, *Production Planning and Control: A Comprehensive Approach*, Butterworth-Heinemann, Kidlington.

Lindgren, S 2020, *Data Theory: Interpretive Sociology and Computational Methods*, Polity Press, Cambridge.

SHIFTING FROM INDIVIDUALISM TO GENERICISM: PERSONALIZATION AS A CONSPIRACY THEORY

[1]Ebrahim Mohseni AHOOEI
Email: emohseni@ut.ac.ir

Abstract: With severe mistrust around classical approaches to consciousness, this paper claims that arguments around the notion of “personalization” of media or messages are grounded on a misinterpretation. Based on the two presuppositions of respective differentiation of human beings and the power to make choices based on reasoning, these approaches have been the reference for many well-known scientific studies, mainly in the fields of media studies, economics, political sciences, and psychology. Despite refuting their results via meta-analyses, such theories have so far sought to maintain their position by resorting to conspiracy theories, the promotion of which, ironically, leads to the syndrome of skepticism, which supports its origins in a vicious circle. While these approaches have been ubiquitous in so-called cognitive priming, projection of mass movements and political abuses of the concepts such as misinformation or disinformation, the mainstream workouts in the fields including but not limited to Perception Management, Artificial Intelligence, and Machine Learning have significantly relied on both de-individualistic and irrational processes. This article aims to prove that the ontological claims about the centrality of individualism in the latest fields of all media and communication technological procedures are grounded in a conspiracy theory. Relying on the method of epistemological reasoning, this article attempts to prove that individualism and personalization in the field of the media industry are the principal tools of social control through the spread of skepticism, which takes advantage of the fictitious nature of the new media sphere for commercial and political purposes.

Keywords: New media, personalization, individualism, genericism, social construction

Introduction

The academic field of communication and media studies is no longer simply about training or acquiring media knowledge and skills to uncover truths. Whether one works as a journalist or a researcher, a lecturer or a student, it is no longer possible to understand what both the media and the truth are without taking a critical approach to the social construction of the media (SCM) and exploring the power and politics of the forces involved in that construction. Such an approach to communications and media is applicable on global and local scales.

Understanding the social construct of media is crucial, especially as a means of decolonizing it across the realm of corporate media dominance. Herman and Chomsky *(1988; 2010)* illustrate how corporate media globally forms Doxa as a general form of media articulation through the production of "consent." This is accomplished by reducing social space into mere information and, as a result, makes social action manageable through information control. Corporate media offers the most legitimate and dominant articulation of events. This is why corporate media has become the only source of the truth in the post-truth era. More importantly, it suppresses other subjectivities forms by producing and legitimizing one precise sort of subject.

*1 Communications researcher at the University of Vienna, and a member of the Executive Committee of the UNESCO Chair in Cyberspace and Culture

The importance of paying attention to the SCM at the local level goes back to the dominance of the Development Media Theory (DMT) over the communication sphere of developing countries during the twentieth century *(Sonaike, 1988)*. The DMT theory states that media is nothing more than a foundation for development. Then, neither truth nor freedom of media, have no intrinsic value. The lone credible goal of its mission is to serve the development process. With such an approach, manipulation, deception, and rumor spreading are legitimate if they persuade in line with the development goals. But manipulation is only possible when the audience is unable to take a critical stance toward the media. Otherwise, the propaganda effect of the media would be severely depauperated persuasion techniques and tactics become overt. Therefore, the DMT depends on a somewhat passive, vulnerable, and impressionable audience. For such an approach, the definition of media literacy is reduced to the ability to use media tools such as reading a newspaper or operating a communication device.

From a global perspective, it is why understanding the complex and covert means of propaganda of the corporate media has become an obligation of journalism, communications, and media studies. At the local level, paying attention to the social construct of media can be effective in overcoming inefficient traditional approaches. The legitimacy of state control and surveillance of media and seeing it morally acceptable to manipulate the media is not the only crisis of the DMT. More importantly, the abovementioned legitimacy was particularly relevant to the era of the classical media, including the press, radio, cinema, and television. The intellectual remnants of the DMT here and now are a misunderstanding. These form one of the obstacles for some countries in playing a commensurate role in the global communication sphere.

Given the above, I am focusing here on one of the socially constructed concepts, namely individualism – and its media corresponding, personalization - which is assumed by mistake as a natural concept. My claim is that over the past decade, new media suffered a shift in paradigm; from subject-based personalization to object-based genericism. I argue that the concept of personalization has become a myth. This approach is sustained through artificial ventilation for reasons that I will elaborate on throughout the text.
The question is that, while the procedures for the development of communication and media technologies are based on the repeatedly refuted idea of depersonalization, why are politicians' statements and media industries' procedures based on individualism rhetoric?

Method

The reasoning of this article is based on the epistemological paradigm *(Guba & Lincoln, 1994, p. 108; Hejase & Hejase, 2013, pp. 82-83)* and seeks the background conditions and reasons for a variation of ontologies that have been constructed through the modern history of communication sciences as theoretical attempts to understand the nature of media. The epistemological method used in this article capitalizes on an innovative articulation consisting of three distinct ontologies: Instrumental Approach to Media (IAM), Media Ecology Approach (MEA), and Social Construction of Media (SCM). Each theory of communication and media is coupled to

one of these three ontologies, which upon describing their stands on media and communication, their explanatory power can be justified. Such reasoning is particularly focused on turning points where the ontology does not withstand reality.

Adopting epistemological reasoning as a method is not only capable of showing the false nature of individualism in the mainstream procedures of developing communication technologies but also explaining the reasons for these procedures' insistence on pretending to be individualism and resorting to conspiracy theories to falsify reality.

Milestones in the approaches to the media

To most people, media is just a tool or channel of communication. Such an instrumental approach to media (IAM) is the continuation of three decades of competition for the computational communication models by scientists such as Claude Shannon (1948), Wilber Schramm (1954), and David Berlo (1977) in attempts to provide the mathematical models that dominated the intellectual sphere of the United States from the 1920s to 1950s. This conceptualization reduces media to a neutral channel of content or information, and it limits the scope of media studies to media content. The pernicious deficiency of this notion is that it cannot account for the social effects of media.

To compensate for this shortcoming, communication scientists developed the Media Ecology approach (MEA). The metaphor of ecology here focuses on how the media influences social situations and interactions and seeks to understand how different media facilitate different social interactions and structures. From the MEA perspective, each medium has its own unique sociological and psychological characteristics. The concept of the MEA, introduced mainly by Harold Innis, Marshall McLuhan, and Neil Postman *(Patterson, 1990)*, conceives of media more broadly than as a means of communication. Instead, they see it as an entity that encompasses the entire living environment. That is why the media technology of every era, i.e., how people communicate, significantly depicts its culture, ways of thinking, values, social relations, and power.

Information and communication technology, under this approach, has blurred traditional social and cultural boundaries and thus changed the classical structure of the national state and the concept of national information "border." According to Lash (2002), in such circumstances, the world is divided into two parts: Reactive winners are those whose reaction to the situation is in line with the new structure, and reactive losers who try to maintain the lost patterns in the old construct by resisting the new one *(Lash, 2002, pp. 137-39)*.
More importantly, in line with the MEA approach, the social situations of individuals are determined by communication constructs rather than productive structures. As citizens organize and express themselves through algorithm-based services, algorithms and their shared interests become a part of citizens' identities. When digital services determine the content of media through algorithms, digital media become the technological human subconscious that influences the symbols through which we think, make decisions, and react.

However, criticism against the MEA is widespread, whereby its technological determinism is the most common. Critics claim that media ecologists draw a too simple picture of the social change driven by technology. Technological determinism considers technology as an independent force that forms society without considering sociocultural factors related to power. As a well-known illustration, Harway and Williams (1995) point out that McLuhan's technological determinism of "the medium is the message" (McLuhan, 1964, p. 23) underplays the effect of other factors, including economic, cultural, and political, on the technologies that do not exist independently (Harvey and Williams, 1995). Instead, to influence society, technology must necessarily be socially recreated through human interests, wills, and agency.

While deterministic ecologists had derived their approach from their lived experiences and the direct influence of mass media on the human psyche and mentality, criticism of their magnification of the effect of the media led the next generation of media ecologists to a softer version that saw media technology as facilitating or modifying change rather than determining its course. New media ecologists, including Joshua Meyrowitz (1999) and James Carey (2008), believe in social constructivism. Meyrowitz (2001), for example, demonstrated the unscientific McLuhan's approach's nature to the possibility of altering the audience's nervous balance through media.

According to Meyrowitz (1986), electronic media promote a selected sort of social change by connecting previously separate social spaces and domains. Before electronic media, social spaces were tied to physical spaces. In the past, physical barriers like walls, doors, and gates controlled the flow of information and effectively kept social spaces apart. As electronic media reduced the necessity for face-to-face communication to access information, the dependence of informational spaces on a specific physical space weakened. As a result, social spaces and spheres began to merge. In a society where social spaces can't be clearly distinguished from one another, the actors will each be a part of a connective tissue or network of communication. The information flow blurs the boundaries between the private and public spheres. At the same time, the evocative nature of the communication network makes it possible to act as a part of the human thought process. As a result, the boundaries are lost between individuals and their networks. This consequence violates the concept of separate and independent individuals, which is the dominant idea within the epoch.

The social construction of media (SCM)

The media is a social institution. According to Giddens (1984), institutions are both objective structures in the sense that they set the rules for social action, and they are subjective in the sense that they can only exist in the minds of citizens and be accomplished through their actions. Institutions change when enough citizens start behaving differently. The idea means that a social institution cannot emerge or survive without the mechanisms of creating and developing society, including the public mindset.

The media is grounded in a specific social, economic, political, cultural, historical, and technological context, and continues to exist in continuous interaction with this context. Therefore, it is necessary to understand media from a social constructivist

perspective. At the same time, one must bear in mind that each medium has its technical characteristics that partly determine how it can be used. That is, a medium does not determine the social ecology, but it is determined socially. Assuming media is a social construct explains the power relations that determine media technologies. The entire technological structure of the Internet, for example, is determined and seemingly will be determined by power relations. Earlier, Neil Postman (1984) stated that media technologies are a set of ideas or ideologies. Similarly, Fred Turner (2021) argued that the counterculture of the 1960s was a basic factor in the creation of the Internet in the 1970s. According to Turner (2021), the early inventors of the Internet and personal computers were motivated by the idea of communication technology that could not be controlled by any center, and which would create unpredictable communication freedom for individuals. In the 1990s, this idea turned increasingly to the service of neoliberal policies, and as a result, the Internet became a determinative factor in the globalized economy.

In a vast social ecology, not only economic, all actors begin to cooperate and participate in a very open way. It is not a result of new media, but it reflects individual, anti-authoritarian, and people-centered values of late modern culture. In an information-based society, pervasive networks connect different ideas, cultures, institutions, organizations, and individuals. Everything is part of a whole, and the boundaries between, for example, work and leisure, private and public, and national and international are increasingly blurred. The development of a social ecology does not occur without conflict but creates new problems.

A society organized at the grassroots level is highly individualistic and thus deepens social inequalities. The social ecology is communication-based, meaning that cultural capital and the interactive skills of individuals are emphasized. Cultural and social capital puts citizens in an unequal position, and the hierarchies take on a new form.

In such a situation, where life management is closely associated with symbolic management, citizens become more obsessed with media to comprehend the importance and meaning of their life. The more social capital an individual has, the higher his or her chances of success in matching the meaning of life with the symbolic meaning. Similarly, those with the most effective resources for communicating and producing media content will have the foremost power in defining a shared reality. It is why the foremost significant driver of social development is to possess more interactions and communication.

The inefficiency of outdated ontologies

Regardless of what is happening in the academic realm, the media policymaking sphere, as well as the media's everyday applications in areas including but not limited to advertising, public relations, and propaganda, is taking a very different path. In the world outside the academy, two IAM and MEA are popular, but the conception of media as part of a wider ecosystem or social construct has widely been neglected. To be more precise, the ontology of the media in the operational space and finding a more applicable answer to the question "what is the media?" has not been developed in parallel with the practical and theoretical developments of the media itself. This

ontological discontinuity has several reasons, the investigation of which requires paleontology within the scope of the experience of modernity and its relationship with the concept of media, but what is central to the present research is the destructive effects of falling into the IAM and MEA.

The popularity of the first two approaches is not only a merely theoretical issue but also a fundamental approach in all media management, research, and policy. Even most of the routine analyses and policies of new media, including social networks and computer games, are based on the IAM and MEA procedures. In sociological research, cultural studies, psychological studies, and educational sciences, most of the topics, such as the effect of digital media, social networks, or computer games on identity, ethnicity, teenagers, etc., are continuously problematizing based on these two traditional approaches. It is why scientific answers often do not lead to effective social solutions. In terms of policy and legislation, all the usual conservative efforts such as closing, blocking, and filtering globalized communication are rooted in the lack of an updated approach to media ontology.

Statesmen, politicians, and media policymakers in closed societies are trapped in such an idea that by "closing the borders" of information flow by crystalizing it in a national intranet network, they can restrain the information flow and maintain the traditional patterns of power. This complication is the consequence of imposing a mythical ontology on the media. If such authorities had the chance to get new knowledge about media ontology, they would find that their efforts are fighting for a fictional sentiment that has been passed for decades. The media no longer has a demarcated nature that can be closed or limited by national or local boundaries. It is now an interwoven, integrated, and interactive entity consisting of people, meanings, processes, and technologies. In no way is each of these four-element network-structure dominant over another. These four elements interact, and any intervention in one means unpredictable effects on all the others.

As noted in the analysis of media as a social construct, the IAM and MEA to media are ineffective for three main reasons. The first is that new media have a completely different nature as compared to traditional mass media. This heterogeneity is related to the differentiation of construction context and spheres like processes and goals of creating and expanding. A movie screen in a cinema theatre or a TV screen in a family's living room in 1980 were constructed based on shared consumption. Even the traditional press, whose individual subscription was the basis of its distribution, was able to keep the cost of its subscription low because its content and printing technologies were designed for the masses. The press was the reproduction of a coherent package of information for an unidentified mass.

Constructed differently, new media work with the claim that its technologies are the basis of personalization, and that their evolution is towards the deepening of individualism through these technologies. It is thought that any new media technology that has more options for hard and soft personalization is more acceptable to users. All the traditional media were based on one-way communication, and a mass passive audience was only perceived as a receiver. New media, however, is fundamentally based on mutual interaction and collaboration. Finally, in terms of the process, while the success of the mass media was in its depersonalizing the audience and suppressing them into a passive mass, new media rhetorically is based on personalization and individualism. The networks and

social media, for example, do not have any of the features, capabilities, or process capacities of mass media. Their role, including creating and directing the flow of social movement, is not of the authoritarian type that was common in traditional mass media. When the subject of the investigation has completely changed, the old approaches to it lose their effectiveness.

The second reason for the inefficiency of the IAM and MEA is that all traditional mass media have changed their status after the emergence of new media. Traditional mass media, including the press, radio, cinema, and television, are using the features and capabilities of new media, and this effort has completely changed their being. Today's television, with its extensive interactive facilities based on both web and wave, is not similar to television in the 1990s. Those who believe that the traditional media, including television, are still the most significant in conducting the public, are oblivious to the fact that the traditional mass media itself achieves its existence through its interaction with the new social ecosystem. Talking about the new media is not specific to certain forms of media. All media, including traditional ones such as the press or television, have internalized the social construction of new media.

And finally, the third reason is related to the content of the media. The SCM is not only about media technology; it also encompasses content. The process of creating meaning in the message transmitted through the media is dynamic and social. Society is continuously negotiating the meanings of real happenings. Therefore, the media cannot produce any meaning outside the scope of what is negotiated in society. This requires simultaneous attention to the audiences and how they interpret media content. The social process of creating meaning is not specific to new media. The traditional mass media's content was decoded in the same way for the masses. However, because in the period of dominance of mass media, the production of content was exclusively under the control of mass media, those media have had more chances to create the desired meaning in the minds of the masses. At the same time, during that period, complementary techniques such as causing fear, replicating, or harmonizing were used to quickly consolidate the intended meaning. That situation has now completely changed. Social groups can exchange messages and participate in the process of producing meaning free from surveillance; therefore, it is not as easy and possible to control the message's meaning as it was in the past. It is another reason that proves that even traditional mass media cannot control the meaning production process through society in the period of new media.

Insisting on understanding the media as an instrument or ecosystem is the source of inefficiencies, failures, and continuous wastage of resources. With a closer look, we will find that such a situation was not usual during the period of dominance of traditional mass media. In previous decades, television, for instance, could achieve the desired level of persuasion of public opinion in the best way. The reason for that capability was in the adaptation of social conditions to the answer given by the media trustees to the question of media ontology. The administrators of mass media considered media as a means of persuasion and promotion of the convergence and social cohesion of the passive masses, and practically media was still such a thing. This adaptation of reality and knowledge was the origin of the legitimacy of the mass media's sovereignty, surveillance, and exclusivity because it was well-seen how mass media could influence public opinion. In other words, it seemed obvious that such a terrible "instrument" should be in the hands of a monopoly because, without this monopoly, it would not be possible to rule over the masses.

The ideological construction of individualism

Adopting an approach to the SCM is most encouraging to the idea that the subject of media studies is no longer the method of identifying ideological dualities, including information/misinformation, real news/fake news, and fact/conspiracy theory. Such a diagnosis is not the duty of scientific efforts but the self-imposed responsibility of propaganda campaigns. The right and serious questions are concerned with how these dualities are constructed and what are the benefits of the forces that intervene in such constructions. Answering these questions is beyond the comprehension of the technical characteristics of the media.
Like all constructed dualities of neoliberalism, personalization and individualism versus de-individualization and genericism is an ideological construct. Using the concept of Ideological State Apparatuses (ISAs) in Althusser (1970; 2010), Garite (2003) states:

> "*Within ideology, it appears 'obvious' that people are unique, distinguishable, irreplaceable identities—and that, as autonomous individuals, they possess a certain kind of subjectivity or consciousness which is the ultimate source of their beliefs and actions, independent of the world around them*" (Garite, 2003, p. 5).

So far, many scholars have revealed the ideological or political construction of individualism and shown its hidden nature through concepts such as hailing or interpellation (Althusser, 1972), control (Baudrillard, 1983), or willing adoption (Belsey, 2003). According to Althusser (1972, p. 175), "the existence of ideology and the hailing or interpellation of individuals as subjects are the same thing." Related to this concept, Gauntlett (2002) remarks: "interpellation occurs when a person connects with a media text" (Gauntlett, 2002, p. 27). Even in the 1980s, philosophers like Baudrillard rightly realized that "the role of the message is no longer information, but testing and polling, and finally control […]" (Baudrillard, 1983, pp. 119-20). Or as Belsey (2003) puts it, these kinds of actions do not have a compelling quality, but

> *"people 'recognize' (misrecognize) themselves in the ways in which ideology ... calls them by their names and in turn 'recognizes' their autonomy. As a result, they 'work by themselves', they 'willingly' adopt the subject-positions necessary to their participation in the social formation"* (Belsey, 2003, p. 61).

All the above bolster one idea: That the general notion of individualism as a Doxa has been a manipulated one. We must, therefore, refute the notion that individualism is a natural state of affairs for humankind. It is the first point of departure to critique the systems that see their advantage in personalization and adaptation to individualism as a natural feature. It is important to focus on the jargon's functions or the discourse of individualism because these functions will reveal why this approach pretends to be empowered, despite its incapability.

Specifically, the two main functions of the ideological construction of individualism are to the disclaimer of political systems, on the one hand, and to cultivate the dream of human selectivity, on the other hand. Through these two functions, personalization and individualism have far-reaching economic and political implications for both the political system and the market (Fuchs, 2003).

In contrast, it is claimed that the de-individualization and collectivism of the masses are the mechanisms of totalitarian and fascist regimes. In this way, the individualistic "We" and the mass-oriented "Others" become, in a Kantian way, the universal rule of ethics and aesthetic judgment. It is a social construction of good and evil, which claims that individualism is full of freedom, self-confidence, and self-expression, while collectivism is the product of the suppression of individual freedom in opposition to human nature.

Relying on such a deceptive notion of individualism, new media manifests its advantage by claiming to personalize messages, platforms, and implementations. In breathtaking competition, new media finds its advantages in the so-called respect for individuality, the power to choose, the right to express a personal narrative, and the ability to provide a unique version of media-per-user.

Refutation of the personalization approach

Despite widespread critical explanations of the ideological nature of individualism, doubts about the practical functions of the concept started appearing only in the early 1970s. Scholars' acknowledgment of the ideological nature of the social construction of individualism in the modern era has inadvertently implied a belief in its persuasive effectiveness. But this conception began to end in the 1970s.

In return to the early 1970s, when the advent of relatively high-speed processors prompted scientists to discover the universal pattern of everything, including the general pattern of human behavior. However, the results of the first attempts were not very promising, and their product was the idea of “randomly transitional phenomena” (Sprott, 2003, p. 89) as a logical explanation for the Chaos Theory (CT). Although the CT implies the impossibility of designing universal patterns, the theory is the product of such a dream by itself. Interdisciplinary studies within the scope of the CT have attempted to arrive at such a pattern, but the matter was reversed. Thus, it was theorized that even though there is a model for explaining human behavior, indeed the number of variables and their interactions is too great to be considered.

Later, during the 1970s and as a reaction to chaos theory, the Computational Complexity Theory (CCT) (Karp, 1972) dominated. This theory proposed entrusting the discovery of a general pattern between information units to the computer as a practical alternative to chaos theory. While it is practically impossible to determine the algorithm of relationships between “information units” in a universal pattern, this should be left to the processing systems to discover an iterative pattern between the information units and finally complete the puzzle. It was soon clear that the CCT was facing two serious obstacles. Firstly, we cannot define a specific "unit" for information. Any breakdown of an information package to its components means the loss of the overall spirit of that package. Secondly, information has something inside that the computer cannot understand: Semanticity. Thus, the theory of complexity failed as the first practical step in machine learning with barriers to the unification and semantics of information.

Although efforts to break down complex semantic structures into smaller parts

through projects such as Operad theory continue, these projects are still unable to systematically break down information without human intervention. For example, Operads depend on basic structures called "arguments," which must be previously defined by humans as "inputs" of the system. So, though "interfaces define which designs are syntactically feasible, key semantic information must be expressed to evaluate candidate designs" (Foley et al., 2021, p. 2).

These controversies continued until 2007 when the Quark Theory (QT) opened a new door into computing science. According to the QT, which the physics community accepted in 1975 (Griffiths, 1987, p. 42), every entity consists of a set of microcomponents called quarks. A quark is the smallest unit of a phenomenon and cannot be partitioned into smaller particles. This subatomic particle applies to any entity whether dead or alive and more importantly, it is not arbitrary but a general rule that is repeated on a larger scale. In the field of information technology, the QT led to a major revolution: shifting from the Internet of information to the Internet of data. In the history of its invention and development, the Internet has never experienced a more fundamental turning point than this.

Putting data instead of information solved two trials of the CT: data do not contain semantic mode and can be unified. This revolution took place around 2007; and rapidly transformed all Internet processes, technologies, and platforms. The inventor of the web, Tim Berners-Lee, expressed in a presentation at Ted in 2009,

> *"I said, could you put your documents on this web thing? And you did. Thanks. It's been a blast, hasn't it? … Now, I want you to put your data on the web. Turns out that there is still huge, unlocked potential. There is still a huge frustration that people have because we haven't got data on the web as data"* (Berners-Lee, 2009).

The natural thing that Berners-Lee and his other W3 partners are trying to portray as the duty of individuals to the public good is nothing more than to get people to consent to the transfer of their private data and to the accumulation of public data on the servers of giant digital companies like Google or Facebook to achieve generic patterns to control human behavior.

The next defining event was in 2012, when Daniel Kahneman, winner of the 2002 Nobel Prize in Economics and opponent of rational behaviorism, wrote "train wreck looming" in an open letter to the American Psychological Association published by the 'Nature' website to apply the inefficiency of the Priming Theory (PT). The PT, a theory in psychology, claims that the behavioral outputs desired can be obtained by intentionally projecting specific information into each individual's mind in a personalized way. This theory's findings, which have been the basis of all controversy and so-called 'conspiracy theories' based on data manipulation in the world so far, proved ineffective in Kahneman's re-experimentations. Kahneman's letter also contains “exposure of fraudulent social psychologists such as Diederik Stapel, Dirk Smeesters and Lawrence Sanna, who used priming techniques in their work" (Yong, 2012).

Thus, at least as far as scientific findings are concerned, the approach to personalization is a myth. The myth-making of this approach has not only been blind to all of the

competing scientific studies, but it also continues to insist on its effectiveness even after disclosing its inefficiencies and scientific manipulation of related research processes.

Resistance against the scandal

The abolition of the PM practically meant the end of the legitimacy of the personalization approach. But it still refuses to accept failure. This resistance has unscientific reasons and, therefore, the answer must be sought in the pseudo-scientific mechanisms to conceal its anti-human procedures. Three main reasons explain why politicians and the market continue to support the illegitimacy of the personalization approach.

The first and most important case concerns the function of conspiracy theory in social control. The most important application of the personalization approach to the media is its ability to promote skepticism through the exposure of various conspiracy theories in public opinion. This feature is especially welcomed when the communities are in shock after an event in which there is no obvious possibility to analyze the reasons that led to an unexpected result. When people witness an unexpected event, conspiracy theories are used to spread suspicion. The public can be controlled in this way. Ideas like Russia's manipulation of American and British voters by priming operations through online social media to vote for Donald Trump or Brexit, Israeli control of the Arab Spring through social media, or Russian influence over the European Union's (EU) users through the spreading of misinformation are entirely based on conspiracy theories. More surprisingly, these sorts of theories are being voiced, not by ordinary people, but by credible scientists, think tanks, and international institutions.

Even if, for example, Russia has been able to send personalized messages to American or British users through social networks and platforms, this does not mean that such an action has had a definite effect like leading to the mental manipulation of users or forcing them into the desired behavior. Despite extensive efforts to gather massive data on the reality of such an action by Russia, there is not a single article proving the effectiveness of such actions. As if taking an action equals the definite effect of that action. Instead of addressing the real roots of shocking events, in such a sphere that conspiracy theories are used to keep their producers safe from any doubt but to have this suspicion flow across society and among individuals.

The second reason for keeping the personalization approach alive is related to its commercial and political applications. Collusion between bankers, investors, data analysts, and politicians has kept the feasibility and acceptance of risk analysis based on personalized data safe from criticism. The reason is that all parties involved in such a claim benefit from a common myth. However, the main cause of the 2008 economic crisis is the reliance on this inefficient approach (Senior Supervisors Group, 2009). Another example is the Cambridge Analytica scandal, which claims that manipulating the minds of the voters in the US presidential election in 2016 was nothing more than a propaganda effort to legitimize such institutions and maintain a mighty turnover among them.

The third reason goes back to the imaginative existence of the media world. New media create a fictitious world, and users consent by imagining the controllability of

that fiction. While new media users are not active subjects in the real world, such an impression gives them a sense of selectivity, control, and centrality. Users react within the realm of the imaginary and fantasy-mediated world. Replacing the imagination of social action with the impossibility of action in the real world leads to consent. It is why and how people consider acting in it as a social norm or even common morality by immersing themselves in an online social network.
The idealistic manifestation of digital companies is the availability of information to create personal narratives by individuals, regardless of the dominance of other narratives. Metaverse, for example, is based on such an illusion. It is the idealistic face of the personalized world through the media. Space is neither a new technology nor a turning point in the history of the Internet or new media. Metaverse is merely an enterprise strategy claiming to personalize the imaginary world. That is, it pursues its interests where freedom is as ideal as possible.

Analysis

The reloaded revolution of 2007 that led to the rise of the Internet of data revealed the illusory nature of the individualism promised by neoliberalism. Internet development processes prove the formalistic manifestation of neoliberalism and the hypocrisy of individualism within it. However, the notion of individualism as the epistemology of Kantian judgment remains a central element of the ideological jargon of neoliberalism. This concept can integrate macro-narratives within the system in a non-problematic articulation.

According to the SCM, media is an ideological construction influenced by contextual conditions. While individualism is the central element of the ideology of neoliberalism, new media emerging from that origin also carry a similar ideology. Accordingly, the hypocrisy of neoliberalism in its emphasis on individualism is traceable in new media. On the one hand, it is claimed that the central value in all new media is the personalization of media technology, processes, and content according to the unique characteristics and needs of the user. On the other hand, the procedures of new media development, especially algorithms, artificial intelligence, and machine learning, are based on two fundamental features de-individualization and de-rationalization.

There is a theoretical contradiction here: With the help of new media and digital technologies, users feel more individualistic selectivity than before, and at the same time, the reality of the development trends of these technologies proves that users are constantly, and more than ever before, stripped from their individuality, and they have lost the rational basis in their decisions. The concept of reverse democracy provides a reliable explanation for the resolution of the above contradiction. What new media users refer to as selectivity is merely an ideological construct in the form of predetermined and planned ideological interactive paths. It works based on Skinner's model (Shrestha, 2017) of rewards and punishments, where operant conditioning takes the place of rational critical analysis. Therefore, what users think of as the right to choose is the fulfillment of a predetermined task and obedience without reflection or resistance in the implementation of the commands of an inclusive system whose universal patterns have made it impossible to understand its imposed features.

Contrary to common sense, the fears caused by the superiority of artificial intelligence over human cognition, emotion, and motivation are more related to the mechanisms of suppressing the triple Kantian capabilities of humans and turning them into operant conditioning objects rather than the realized and expected advances in artificial intelligence itself. Artificial intelligence and machine learning are nothing but “commands” designed for the machine through algorithms. Similarly, the ideology of interaction is nothing more than “commands” designed for humans through predetermined paths. It is claimed that the increasing complexity of algorithms has made machines human-like, but this is not a comparison between a machine and a very liberal human, but a comparison between a cybernetic machine and an operant conditioning human reduced to the position of an ideological object.

Like the field of artificial intelligence, the individualism of this new level of human is not self-reliant, but an individualism determined within universal generic patterns. According to one of these universal patterns, for example, a human can simply have one of these five primary personality traits: extroversion, agreeableness, openness, conscientiousness, and neuroticism. This generic articulation of humans ignores contextual characteristics such as culture, gender, or age, and it suppresses any inconsistency within the imposed classification.

However, the illusion of individualism continues to be sanctified, and the moral considerations that make "Us" defeatable to "Others" are constantly invoked. It is the starting point for all conspiracy theories which are the underpinning of all dualistic constructs, including information versus disinformation. The basic problem with these types of compositions is their irresolvable contradiction. The assumption of the possibility of influencing individualistic users through individualized advertising or propaganda requires the belief in the lack of ability of rational and critical reasoning on the part of users because, according to conspiracy theories, individualized messages can conduct the behavior of the mass including the US presidential election or the UK Brexit votes. Such a belief requires two basic simultaneous presuppositions. First, it presupposes that some mechanisms can force users to perform planned behavior regardless of their characteristics. As behavior change is possible regardless of individuality, this first assumption rejects the basic claim of individualistic patterns. The second basic premise of conspiracy theories is that it is possible to force users to change their behavior through a series of messages. Acceptance of this claim requires belief in irrational action and objective quality of users, that is, something consistent or at least similar to Skinner's operant conditioning mechanism (Shrestha, 2017) or algorithmic controllability. Therefore, conspiracy theories, in themselves, negate the two principles of individualism and rational liberalism.

Conclusion

The analyses of new media and all its dual structures, including information/misinformation or fact/conspiracy theory, require a critical approach to the SCM and the intervention of power and politics in such constructed dualities. This approach has two beneficial consequences. First, it enables journalists and the academic community to decolonize the media, thus restoring power to the marginalized forces in a more balanced way. The second important consideration is to move beyond traditional approaches, such as the DMT, MIA, or

MEA that have lost their effectiveness in the post-truth era. The SCA is an effective, informative, and efficient alternative to understand, not in a way the corporate media has narrated to us, but in a more realistic and just one.

As the claim of the possibility of personal narratives of self and life, the rhetoric of individualism has two main functions: First, the exoneration of political systems and the consequent voluntary renunciation of human beings from pursuing the demands and rights entrusted to administrations, and second, the cultivation of the dream of human freedom through the creation of the illusion of selectivity and surrender to predetermined paths of the consumer market as the only possibility to express the idea of unique social existence. Both functions are the implementations of very social control.

New media operates not based on the idea of individualistic personalization but on the generic construction of the human cognitive system. Spreading suspicion by shaping conspiracy theories, commercial and political interests, and imaginative new media construction are the three main factors in the survival of media personalization assertions. The main customers of media personalization are politicians and the market. Fragmenting society, spreading skepticism, and expanding anxiety resulting from conspiracy theories or the immersion of users in an imaginary world have commercial and political benefits for those who are consumers of the consent users.

Paying attention to the power and politics of the constructed reality in the post-truth era is a requirement for all researchers in the field of new media. Dearticulating and rearticulating reality in ways that reduce the dominance of power and politics in favor of higher explanatory power and analyzing the effect of power and politics in socially constructed articulations are some suggestions that can be based on the argumentations made here.

Acknowledgments

The author thanks Hatem El Zein for helpful discussions and comments that significantly improved the presentation.

Note: *This paper has been published in Žurnalistikos tyrimai, 2022. 16, pp. 14-38.*

References

Althusser, L. (1970) *Ideology and ideological state apparatuses (notes towards an investigation)*. Available at: https://www.marxists.org/reference/archive/althusser/1970/ideology.htm (Accessed: 29 January 2023)

Althusser, L. (1972) 'Ideology and Ideological State Apparatuses: Notes towards an Investigation: Lenin and Philosophy and Other Essays', in A. Scott and K. Nash (Eds.). *New Critical Writings in Political Sociology*. New York: Monthly Review, pp. 85-126.

Althusser, L. (2010) 'Ideology and ideological state apparatuses', in I. Szeman and T. Kaposy (eds.) *Cultural theory: an Anthology*, Wiley-Blackwell, 204-22.

Baudrillard, J. (1983) *Simulations*. New York: Semiotext (e).
Belsey, C. (2003) *Critical practice*. Routledge.

Berlo, D.K. (1977) 'Communication as process: Review and commentary', *Annals of the International Communication Association*, 1(1), pp. 11-27.

Berners-Lee, T. (2009) 'The next web', *TED Talks.com*. [Online]. Available at: https://www.ted.com/talks/tim_berners_lee_the_next_web (Accessed: 10 June 2022).

Carey, J. W. (2008) *Communication as culture, revised edition*: *Essays on media and society*. Routledge.

Foley, J. D., Breiner, S., Subrahmanian, E. and Dusel, J. M. (2021) 'Operads for complex system design specification, analysis, and synthesis', *Proceedings of the Royal Society A, 477*(2250), 20210099.

Fuchs, C. (2003) 'The Role of the Individual in the Social Information Process', *Entropy*, 5(1), pp. 34-60. https://doi.org/10.3390/e5010034

Garite, M. (2003, November) 'The Ideology of Interactivity (or Video Games and Taylorization of Leisure)', In *DiGRA Conference.*

Gauntlett, D. (2002) *Media, Gender and Identity*. London: Routledge.

Giddens, A. (1984) *The Constitution of Society: Outline of the Theory of Structuration*. Cambridge: Polity Press.

Griffiths, D. J. (1987) *Introduction to Elementary Particles. John Wiley & Sons. ISBN: 978-0-471-60386-3.*

Guba, E.G. and Lincoln, Y.S. (1994) 'Competing paradigms in qualitative research', in N.K. Denzin and Y.S. Lincoln (eds.) *Handbook of Qualitative Research*, Thousand Oaks: Sage Publications, Inc., 105-117.

Harvey, D. and Williams, R. (1995) 'Militant particularism and global ambition: The conceptual politics of place, space, and environment in the work of Raymond Williams', *Social Text*, (42), pp. 69-98.

Hejase, A.J. and Hejase, H.J. (2013) *Research Methods: A Practical Approach for Business Students* (second edition). Philadelphia, PA, USA: Masadir Inc., 82-83.

Herman, E.S. and Chomsky, N. (1988) *The political economy of the mass media*. Pantheon, New York.

Herman, E. S. and Chomsky, N. (2010). *Manufacturing consent: The political economy of the mass media*. Random House.

Karp, R. M. (1972) 'Reducibility Among Combinatorial Problems', in R.E. Miller; J.W. Thatcher (eds.) *Complexity of Computer Computations*, New York: Plenum, 85–103.

Lash, S. (2002) *Critique of information*. Sage.
Meyrowitz, J. (1986) *No sense of place: The impact of electronic media on social behavior*. Oxford University Press.

Meyrowitz, J. (1999) Understandings of media. *ETC: a review of general semantics*, 56(1), pp. 44-52.

Meyrowitz, J. (2001) 'Morphing McLuhan: Medium theory for a new millennium', in *Proceedings of the Media Ecology Association*, 2, pp. 8-22.

McLuhan, M. (1964) *Understanding media*: *The extensions of man*. MIT Press.

Patterson, G.H. (1990) *History and communications: Harold Innis, Marshall McLuhan, the interpretation of history* (p. 1663). Toronto: The University of Toronto Press.

Postman, N. (1984) *Amusing Ourselves to Death: Public Discourse in the Age of Show Business.* New York: Viking Penguin Inc.

Schramm, W. L. (1954) *The process and effects of mass communication.* Illinois: The University of Illinois Press.

Senior Supervisors Group (2009) 'Risk Management Lessons from the Global Banking Crisis of 2008', *Senior Supervisors Group*. [Online]. Available at: https://www.sec.gov/news/press/2009/report102109.pdf (Accessed: 10 June 2022)

Shannon, C. (1948) 'A Mathematical Theory of Communication', *The Bell System Technical Journal*, 27, pp. 379–423, 623–656.

Shrestha, P. (2017, November 17) *Skinner's theory on Operant Conditioning. Psychestudy*. Available at: https://www.psychestudy.com/behavioral/learning-memory/operant-conditioning/skinner (Accessed: 14 December 2022)

Sprott, J. C. (2003) *Chaos and Time-Series Analysis*. Oxford University Press.

Sonaike, S.A. (1988) 'Communication and Third World development: a dead end?', *Gazette, 41*(2) pp. 85-108. doi: 10.1177/001654928804100202.

Turner, F. (2021) *From counterculture to Cyberculture*. Chicago, IL: University of Chicago Press.

Yong, E. (2012) 'Nobel laureate challenges psychologists to clean up their act', *Nature* (2012). https://doi.org/10.1038/nature.2012.11535

ARTIFICIAL INTELLIGENCE AND FAKE NEWS

[1]*Fadia Hussein, [2]Hussin J. Hejase
Corresponding author: Dr Fadia Hussein, Email: fadiahussein3@gmail.com

Abstract: Artificial intelligence depends on digital devices' performance to perform tasks regularly, requiring human intelligence, using special software to accomplish work easier and faster, carrying out data-packed tasks, and providing useful analytics or solutions. It also requires a specialized laboratory that provides high-performance computing capabilities and a technical platform for deep machine learning. These resources will enable the artificial intelligence platform to master the machine learning techniques of using, developing, simulating, predicting models, and building ready-to-use technological solutions such as analytics platforms.
In general, the artificial intelligence system manipulates and manages large amounts of training data to form correlations and patterns used in building future predictions. A limited-memory artificial intelligence system can store a limited amount of information based on the data that have been processed and dealt with previously to build knowledge by memory when combined with pre-programmed data. Consequently, one may ask how artificial intelligence applications contribute to verifying the truthfulness of the media through digital media. How do they contribute to preventing the spread of misleading and false news?
This study tries to answer the following question: *What methods and tools are adopted by artificial intelligence to detect fake news, especially on social media platforms and depending on artificial intelligence laboratories?*

This paper is framed within automation control theory and by defining the needed control tools and programs to detect fake news and verify media facts.

Keywords: Artificial intelligence, fake news, machine learning, techniques, data.

1. Introduction

Hawking (2016) posits that "The rise of powerful Artificial Intelligence (AI) will be Hawking (2016) posits that "The rise of powerful Artificial Intelligence (AI) will be either the best or the worst thing ever to happen to humanity. We do not yet know which." In a world filled with contradictions, information and communications technology (ICT) in its most advanced versions may contribute to practically answering Hawking's standing question. The current research will shed light on the dark side of media, specifically on the generation and spreading of fake news. AI could detect and generate fake news. According to Shao (2020), "Peter Singer, cybersecurity and defense-focused strategist and senior fellow at New America, defines 'deepfake' as the technology used to make people believe something is real when it is not." Two words 'deep learning' and 'fake' combine to make 'deepfake' and is a form of AI.

Deepfake technology has advanced and can now create convincing images. The best way to spot them is to look for the source of the video (Evon, 2022). Hence, after being accused of spreading misinformation (Roszell, 2021), AI presents itself as an effective

*1 Researcher, Arab Association for Research & Communication Sciences, Beirut, Lebanon
*2 Consultant to the President, Professor of Business Administration, Al Maaref University, Beirut, Lebanon

solution tool to assure data veracity and identify fake news (Ariwala, 2022). Moreover, AI has gained more importance in handling misinformation with the continuous and significant growth of the volume of data. It “challenges the human ability to uncover the truth and makes it easy to learn behaviors, possibly through pattern recognition, harnessing artificial intelligence's power” (ibid).

The simple meaning of fake news is “to incorporate information that leads people to the wrong path. Nowadays, fake news is spreading like water and people share this information without verifying it. This is often done to further or impose certain ideas and is often achieved with political agendas” (Bhikadiya, 2020, para 3). The amount of data exchanged on the internet and more specifically on social media networks is growing exponentially, threatening the credibility of these social networks (Lahby, Pathan, Maleh, et al., 2022). For example, social media sites like Facebook, Twitter, and others have all been accused of spreading fake news (Roszell, 2021).
Regarding fake images and videos, according to a recent study by Pew Research Center (2019), “most adults think that altered videos and images create a great deal of confusion about the facts of current events” (Gottfried, 2019, para 2). Facebook presents itself as a pioneer in handling fake news with trillions of user posts. “The act of sharing also lends credibility to a post, when other people see it, they register that it was shared by someone they know and presumably trust to some degree, and are less likely to notice whether the source is questionable” (The Conversation, 2018). Nevertheless, when one sees an enraging post, he/she must investigate the content rather than share it immediately. However, Facebook realized that AI is superior to manual fact-checking where the second would not be helpful in solving the problem of fake news.

AI is being leveraged to “find words or even patterns of words that can throw light on fake news stories” (Singh, 2017, para 6). Besides, “several solutions and algorithms using machine learning (ML) have been proposed to detect false news generated by different digital media platforms” (Singh, 2017, para 7)

The Conversation site (2018) reported that "Social media sites like YouTube and Facebook could voluntarily decide to label their content, showing clearly whether an item purporting to be news is verified by a reputable source" (para 13). It also reported that "Zuckerberg told Congress he wants to mobilize Facebook users’ community to direct his company's algorithms. Facebook could crowd-source verification efforts. Wikipedia also offers a model of dedicated volunteers who track and verify information” (The Conversation, 2018, para 13).

In fact, “Facebook has been working with four independent fact-checking organizations—Snopes, Politifact, ABC News, and FactCheck.org—to verify the truthfulness of viral stories” (Marr, 2018, para 8). In addition, “Facebook recently announced its plan to open two new AI Labs that will work on creating an AI safety net for its users, tackling fake news, political propaganda as well as bullying on its platform” (ibid, para 8).

2. Research questions

- This study aims to answer one question besides a set of sub-questions.

These are as follows:

2.1 Main research question:

☒ What methods and tools are adopted by AI to detect fake news, especially on social media platforms, depending on artificial intelligence laboratories?

2.2 Research sub-questions

1 - On what does AI rely on carrying out tasks?
2 - How does AI build knowledge?
3 - Does AI provide ready-to-use technology solutions?

3. Theoretical Foundation

Automation advancements are the result of the continuous development of several fields like mechanics and fluidics, civil infrastructure, machine design, and especially the development of computers and information and communications technology (ICT) since the 20th century.
In its general sense, automation implies "operating or acting or self-regulating, independently, without human intervention" (Nof, 2009, p. 14). In the early years of the 20th century, automation has been associated with the replacement of human workers by technology (Hejase, 1999a). Human involvement with automation has been carefully studied, knowing that such a human-machine association extends beyond machines to include tools, devices, installations, and systems that are all platforms developed to perform given tasks (Hejase, 1999b). Therefore, "in its modern meaning automation could be viewed as a substitution by mechanical, hydraulic, pneumatic, electric, and electronic devices for a combination of human efforts and decisions" (Nof, 2009, p. 14).

"*Human intelligence implemented on machines, mainly through computers and communication, became an important part of automation. As human-computer interaction impacts the sophistication of automatic control and its effectiveness by its progress, enabling the development of systems, platforms, and interfaces that support humans in their roles as learners, workers, and researchers in computer environments*" (Ibid, pp. 22, 27, and 1555).

Barfield (2021) posits that “control theory may be used to shed light on the relationship between system components and can help to explain how feedback between system components serves to control a system” (p. 564). Barfield proposes that “factors that control a system should be of interest not only to engineers and computer scientists tasked with designing AI systems but also to other fields’ scholars with an interest in how AI should be managed’ (p. 564). Automation Control Theory emphasizes the reduction of human intervention, and it aims to control machines and processes by using control systems in concert with other information technology applications that aid in collecting, verifying, and providing useful analytics. This research will use automation control theory that leads to defining the control tools and programs needed to detect fake news and verify media facts as solutions to a large database and analytical problems.

4. Methodology

This paper relies on a qualitative, descriptive approach. It looks into the techniques adopted by artificial intelligence tools used in detecting fake news. It asks how these (techniques or tools are the ones that have been used? Restate.) have been used through applications, contributing to preventing the spread of misleading and fake news, images, and videos.

This study relies on secondary data studies to complete the purpose of this research (Hejase and Hejase, 2013, p. 114), using journal articles, books, reports, and technical websites to provide all the needed data to answer the research questions on hand.

5. Discussion

Is the best way to combat fake news using an automated tool?

Powered by Artificial Intelligence (AI) and Machine Learning (ML) algorithms, this study will try to examine three (3) tools that proved effective in debunking false news items: Snopes, Pheme, and Botometer; as well as three (3) tools that are used to verify fake images and videos: Google Reverse Image Search, TinEye, and InVID Verification Plugin.

Artificial Intelligence

McCarthy (2022) defines artificial intelligence as “The science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to biologically observable methods" (para 1). Kaplan and Haenlein (2019) define it as "a system" with the ability to interpret external data correctly, to learn from such data, and to use those learnings to achieve specific goals and tasks through flexible adaptation” (p. 339). Moreover, Russell and Norvig (2009), cited in Tai (2020), posit that “The term AI describes these functions of human-made tool that emulates the “cognitive” abilities of the natural intelligence of human minds” (p. 339). Based on the above, Roszell (2021) contends that “by producing indistinguishable reports from what humans would create, AI can also make realistic-looking graphs and charts, creating any scenario it wants, which could be detrimental to society in many ways” (para 3-4). For example, computers can analyze and recognize an individual’s “voice and facial expressions, then produce a convincing video of that person saying anything” (Watson, 2018). “AI could even fabricate a celebrity death from drugs, encouraging others with addictions to take the same path, and to get more views for their site, affecting negatively society by encouraging others to do unthinkable things out of rage or emotional provocation” (Roszell, 2021, para 9). The many existing examples suggest that “we could already be under the influence of AI manipulation, to the degree wars could be provoked” (ibid, para 11). Consequently, “trying to compete with fake news is a sad concept. It's challenging enough to compete with all the people online, and when you don't get those views or reads, it generally makes us, in a way, depressed” (para 13). Then, according to Susala (2018), “[p]utting technology in an arms race with itself is the biggest challenge of using AI to detect fake

news. AI is used to identify AI-created fakes. For example, techniques for video magnification can detect changes in a human pulse that would establish whether a person in a video is real or computer-generated" (para 10-11). However, some productions are fakes, these could be so highly sophisticated that they are hard to rebut or dismiss. AI facilitates learning behaviors possibly through pattern recognition, harnessing AI's power.

Vertical or Horizontal Artificial Intelligence.

Artificial Intelligence services are classified into Vertical or Horizontal Artificial Intelligence. These two AI ways "are different yet equally important and complementary ways" (Ada, 2021, para 1). Vertical AI is "usually related to a specific problem in a specific industry. It is trained exclusively on that industry-specific data. Vertical AI companies are focused on mastering a single, large use case like Waymo and Vara" (ibid). Ariwala (2022) agrees that "Vertical AI services focus on the single job, whether scheduling meetings, automating repetitive work, and performing just one job and do it so well, that we might mistake them for a human" (para 8).

On the other hand, horizontal AI "can be applied across different industries and can handle multiple tasks. This type of AI is often inspired by one's knowledge of how the human brain works while solving an issue. Its goal is to build complex algorithms that can perform diverse tasks from a common core. AI is an automated decision-making system, which continuously learns, adapts, suggests, and takes actions automatically. For instance, Apple's Siri or Amazon's Alexa are examples of horizontal AI applications" (Ada, 2021, para 2). Ariwala (2022) provides the following examples for Horizontal AI services: "Cortana, Siri, and Alexa which work for multiple tasks and not just for a particular task entirely" (para 9).

In summary, "AI is an automated decision-making system, which continuously learns, adapts, suggests, and takes actions automatically. At the core, it requires algorithms that can learn from their experience. This is where Machine Learning comes into the picture" (Ariwala, 2022, para 10).

Machine Learning

Machine Learning (ML) is a subset of Artificial Intelligence, "which enables machines to learn from past data or experiences without being explicitly programmed" (Javatpoint, 2021, para 10).

Differing from the traditional approach, ML "enables a computer system to make predictions or take some decisions using historical data without being explicitly programmed. So, by using a massive amount of structured and semi-structured data, the Machine Learning model will generate accurate results or shall make predictions" (Javatpoint, 2021, para 11). As a result, Machine Learning is utilized in many applications for an "online recommender systems, Google search algorithms, Email spam filters, Facebook Auto friend tagging suggestion, etc..." (Ibid). ML has three types of learning: "Supervised, unsupervised, and reinforcement" (Bhikadiya, 2020, para 2). Bhikadiya posits that

supervised learning "means training a specific model with labeled examples so the machine first learns from those examples and then performs the task on unseen data" (para 3). That is, "an input is provided as a labeled dataset, the model can learn from it to provide the result of the problem easily" (Arora, 2020, para 3). On the other hand, "unsupervised learning is capable of detecting latent groups or representations in a feature space referred to as clustering. Such learning partitions data points into groups without having to rely on the label or truth data. This label is a required input to the classification algorithms" (Parlett-Pelleriti, Stevens, Dixon, and Linstead, 2022, p. 2). Moreover, Parlett-Pelleriti et al. assert that "the algorithms themselves do not attempt to ascribe meaning to the clusters; i.e., left to human analysts. Instead, algorithms simply report the most likely groups explained by the data. The meaning of those groups must be determined by domain experts" (p. 2).

One example of unsupervised learning is recommendation engines which are on all e-commerce sites or also on the Facebook friend request suggestion mechanism. According to Lu, Wu, Mao, et al. (2015), "Recommender systems were first applied in e-commerce to solve the information overload problem caused by Web 2.0 and were quickly expanded to the personalization of e-government, e-business, e-learning, and e-tourism. Nowadays, "recommender systems are an indispensable feature of Internet websites such as Amazon.com, YouTube, Netflix, Yahoo, Facebook, Last. fm, and Meetup" (Sarker, 2021, p. 162; Zhang, Lu, and Jin, 2021, p. 440). Finally, Kaelbling, Littman, and Moore (1996) define reinforcement learning as "a type of machine learning algorithm that enables software agents and machines to automatically evaluate the optimal behavior in a particular context or environment to improve its efficiency." According to Arora (2021), "These types of learning algorithms are applied in Robotics, Gaming, etc." (para 7).

Identifying fake news

Ariwala (2022) contends that "Fake news is the outcome of presenting information incorrectly or the information does not represent the facts expected to be carried out" (para 4). Also, Bhikadiya (2020) posits that "Fake news is incorporating information that leads people to the wrong path. The aim is to further or impose certain ideas and is often achieved with political agendas. However, for media outlets, the ability to attract viewers to their websites is necessary to generate online advertising revenue, so it is necessary to detect fake news" (para 4-5).

On the other hand, currently, AI is considered the cornerstone to separate the good from bad; in the news field, i.e., because AI makes it easy to learn behaviors, possible through pattern recognition. Harnessing AI's power leads to identifying fake news by taking a cue from articles flagged as inaccurate by people in the past" (Ariwala, 2021, para 6). Several techniques have been identified using AI and ML to detect fake news. Among the various techniques, four are identified and depicted in Exhibit 1.

Exhibit 1: ***Fake news fighting techniques (Ariwala, 2021, para 10-14)***		
1	**Score Web Pages**	Google pioneered this method. Scoring web pages depends on the accuracy of facts presented. The technology's significance has increased as it attempts to understand the pages' context without relying on third-party signals.

Exhibit 1: *Fake news fighting techniques (Ariwala, 2021, para 10-14)*		
2	**Weigh Facts**	Facts are weighed against reputed media sources using AI. An NLP engine goes through the subject of a story, headline, main body text, and geolocation. AI will also find out if other sites report the same facts.
3	**Predict Reputation**	Website's reputation is predicted considering 'domain name and Alexa web rank' via an ML model.
4	**Discover Sensational Words**	Audiences' attention is easily captured by the attractiveness of headlines in news items. Fake news headlines are discovered and flagged by using keyword analytics powered by AI.

Artificial intelligence tools to spot fake information

Kiely and Robertson (2016) contend that "Fake news is nothing new... A lot of the viral claims aren't "news" at all, but fiction, satire, and efforts to fool readers into thinking they're for real" (para 1, 4). In fact, "Snopes.com has been exposing false viral claims since the mid-1990s, whether that's fabricated messages, distortions containing bits of truth and everything in between" (para 3). According to News Co/Lab's research (2019), "more than one-third of people surveyed could not identify a fake headline" (para 1). Therefore, if readers are unsure if a piece of news is real or not, several resources exist to check the information and the reliability of the sources found on the internet. Next, this article provides a brief review of one such tool.

A. Snopes is a website that helps spot fake stories.

News Co/Lab's blog (2019) reports that since 1994 "Snopes has been used extensively to rate claims, articles, social media posts, images, and videos on their validity. Instead of categorizing the target by "true or false" ratings, Snopes uses more specific categories like: True, false, mixture, mostly true, mostly false, outdated, misattributed, miscaptioned, and more" (para 9). Moreover, Snopes provides interested users with a list of fake news sites. "Snopes is recognized by the International Fact-Checking Network, as one of News Co/Lab's Best Practices" (Rosenthal, 2018).

Snopes prides itself on its "fact-checking and original, investigative reporting lights the way to evidence-based and contextualized analysis. And links to and documents their sources, so readers are empowered to do independent research and make up their minds" (Snopes, 2022a, para 1). Snopes initiated its processes in 1994, "investigating urban legends, hoaxes, and folklore. Its founder is David Mikkelson" (ibid, para 2). The website "Snopes.com" is an independent publishing site owned by Snopes Media Group.

Artificial intelligence tools to spot fake information

According to Snopes (2022b), the process follows these steps:

1. Each entry is assigned to an editorial staff member. He/she performs a preliminary investigation and writes a first draft of the fact check.

2. Contacting the source of the claim triggers the research, i.e., the staff member and the source elaborate and agree on the supporting information.

3. Snopes contacts expert individuals and organizations who have relevant expertise in the subject at hand.

4. According to Palma (2022), “Snopes runs a search out of secondary data (including news articles, scientific and medical journal articles, books, interview transcripts, and statistical sources) with a bearing on the topic.”

5. The topics’ nature and complexity necessitate the expertise and editing by other members of the editorial staff besides carrying out additional research.

6. Snopes’ editorial intervention: The outcome is handled by at least one editor.

7. Follow-up: Any piece that does not completely fit Snopes’ standards is subject to more investigation by one or more editors before being released for publication.

Reliability

Snopes prides itself on the comments of users and media among others. Here are some excerpts (Snopes, 2022b):
BBC News describes Snopes as “the go-to bible for many fact-checkers.” (para 8)
“Patricia Turner, professor of folklore at UCLA, told the Los Angeles Times: Anything that raises hairs on the back of my neck, I go to Snopes.” (para 9)
FactCheck.org wrote, "Do the Snopes.com articles reveal a political bias?" (para 10)
Popular Mechanics in 2019: “The 50 Most Important Websites of All Time includes Snopes.” (para 11).

B. Pheme

Has made a technological leap to read the veracity of user-generated and online content. Social networks are rich with doubtful information, lies, fake news, deception, half-truths, and facts. Social networks are rife with memes. The Oxford dictionary (2022), defines a 'meme' as an "Element of a culture or system of behavior passed from one individual to another by imitation or other non-genetic means… Also means an image, video, piece of text, etc..., typically humorous in nature, that is copied and spread rapidly by Internet users, often with slight variations” (para 1-2). But irrespective of a meme’s truthfulness, “the rapid spread of such information through social networks and other online media can have immediate and far-reaching consequences. In such cases, large amounts of user-generated content need to be analyzed quickly, yet it is not currently possible to carry out such complex analyses in real-time” (Pheme, 2022, para 1).

> Consequently, Pheme took charge with partners from seven countries in the fields of "natural language processing and text mining, web science, social network analysis, and information visualization" (para 6). Pheme's project combines “big data analytics with advanced linguistic and visual methods. The results are suitable for direct application in medical information systems and digital journalism” (para 2).

Process (applied to Twitter rumors case)

Kochkina, Liakata, and Zubiaga (2018a) proposed Zubiaga et al.’s (2018) rumors classification system. According to Kochkina et al. (2018a), “A rumor classification system is expressed as a sequence of subtasks, namely rumor detection, rumor tracking, rumor stance classification leading to rumor verification. See Figure 1 for an illustration.

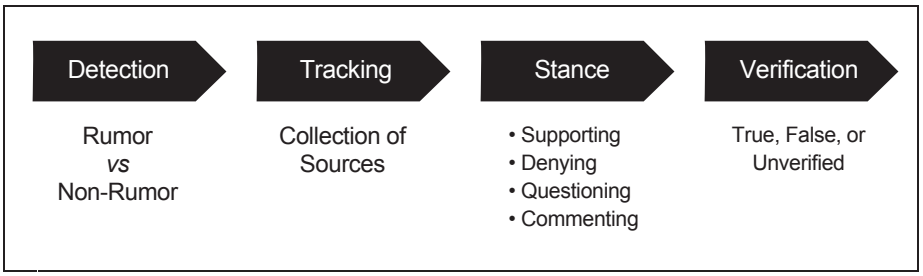

Figure 1. Pheme process
Source: Zubiaga, Aker, Bontcheva et al., 2018, p. 32:13; Kochkina, Liakata, and Zubiaga, 2018a, p. 3404.

Kochkina et al. (2018a; 2018b) used a Pheme dataset that contains a collection of Twitter rumors and non-rumors posted during breaking news. The data is structured as follows:

1. Each event has a directory, with two subfolders, rumors and non-rumors. These two folders have folders named with a tweet ID.

2. A data source is defined: The tweets can be found on the 'source-tweet' directory of the tweet in question. This dataset is an extension of the PHEME dataset of rumors and non-rumors (https://figshare.com/articles/PHEME_dataset_of_rumours_and_non-rumours/4010619) (Kochkina et al., 2018b).

3. Data reactions to tweets collected or found in the source. The directory 'reactions' has the set of tweets responding to that source tweet. The site above contains rumors related to nine (9) events with each of the rumors annotated by its veracity value, either True, False, or Unverified.

4. Classification based on veracity. Each folder contains 'annotation.json' with information about the veracity of the rumor and 'structure.json' with information about the structure of the conversation.

Reliability

According to Pheme (2022), “the European Commission financed the Pheme project since the beginning in 2013" (para 12). Therefore, EC countries have adopted Pheme and consider it a reliable tool.

C. Botometer

> Indiana University created Botometer (formerly “BotOrNot”) as a response to the prevalence of fake bots on Twitter. A Botometer is a free tool that “checks the activity of a Twitter account. It checks the likelihood that it is using automation (bots) and gives it a score. Higher scores mean more bot-like activity” (Twitter, 2020; Botometer, 2022a). The use of this service requires Twitter authentication and permissions. Davis, Varol, Ferrara, et al. (2016) experimented on the former version ‘BotOrNot’, describing it as a “publicly-available service that leverages more than one thousand features to evaluate the extent to which a Twitter account exhibits similarity to the known characteristics of social bots. Since its release in May 2014, BotOrNot has served over one million requests via our website and APIs” (p. 273).

Process

According to Botometer (2022b), “A botometer is a machine learning (ML) algorithm trained to calculate a score where low scores indicate likely human accounts and high scores indicate likely bot accounts” (para 7). The score is computed using the following process (itemized by the researcher from Botometer, 2022b):

1. When checking an account, the browser fetches its public profile and hundreds of its public tweets and mentions using the Twitter API.
2. This data is passed to the Botometer API, which extracts over a thousand features to characterize the account's profile, friends, social network structure, temporal activity patterns, language, and sentiment.
3. The user may also label content based on selected hashtags or other features.
4. The user selects an ML model or the features are used by various ML models to compute the bot scores.
5. Data are not retained by the Botometer other than the account's ID, scores, and any feedback optionally provided by the user.
6. Interpretation of scores

Using Botometer to classify MRIs of the fetus

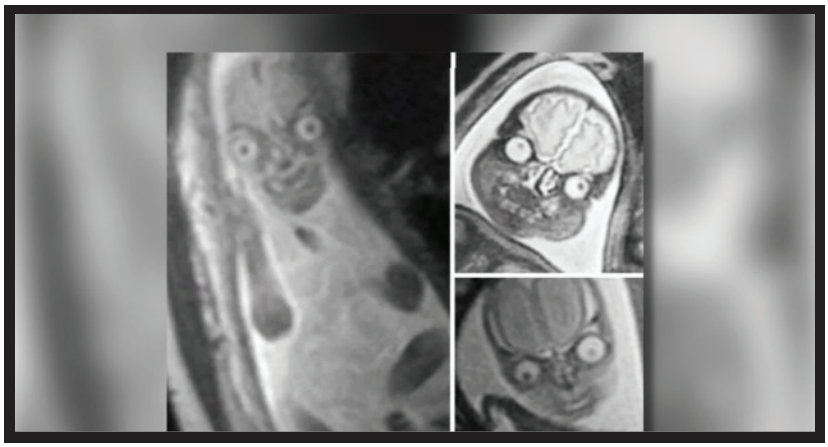

Figure 2. Images of MRIs of Fetus
Source: Katie (2019)

Checking by botometer:

Account: *Katie account @ZiziFothSi*
Joined Twitter on October 2009
The number of followers: *13.8K by June 21, 2022.*
No. of followed accounts: *1,142 following*

@ZiziFothSi

0.1 / 5

Bot type scores

	@ZiziFothSi
Echo- chamber	0.8
Fake follower	0.3
Financial	0.0
Self declared	0.1
Spammer	0.0
Other	0.6

Bot score based on

	@ZiziFothSi
All features	0.1
75% of accounts with a bot score above 0.1	Labeled as humans
Language-independent	0.4
Majority tweet language	en

Profile
Tweet
Details
Feedback

Figure 3. Botometer results

The Botometer test is retweeted with various comments by other community users. For example, Dapcevich (2022) states: "These ghoulish images once again rose to popularity in mid-May 2022 when the Twitter account @dhomochameleon once again

shared the three images, which this time around garnered more than 61,000 retweets and nearly half a million likes on the social media platform…Spooky, right? Don't say we didn't warn you. The scariest part? The above images are real" (para 5).

Reliability

Young Scot site (2022) reports that "many companies utilize bots to help answer customer queries. At the same time, bots are also used by some people for malicious reasons like spreading misinformation and fake news online" (para 2). In addition, "Bots, also called internet robots, spiders, crawlers, or web bots, are programs designed to do a specific task. Whether a particular bot is 'good' or 'bad' depends on what the person creating it has programmed it to do" (ibid, para 3). Indiana University has been very active in combatting fake news using several tools. Among these, the Botometer created by Osome. In fact, "The Observatory on Social Media (OSoMe, pronounced awe•some) is a joint project of the Center for Complex Networks and Systems Research (CNetS) at the Luddy School, the Media School, and the Network Science Institute (IUNI) at Indiana University. OSoMe unites data scientists and journalists in studying the role of media and technology in society and building tools to analyze and counter disinformation and manipulation on social media" (OSOME, 2022, para 1).

D. Google Reverse Image Search

Misleading photos, scams, and people's use of one's images without permission are frequent nowadays on social media. Ho (2018) posits that "A lot of the fake news comes in the form of pictures. Photos that try to convey some information but are actually from another entirely unrelated incident are common on social media" (para 4). Consequently, 'tools to debunk all malicious activities are needed. Google Reverse Image Search is an example of the needed tools" (Hautala, 2022, para 4). Figures 4 and 5 illustrate web sites that help in reverse image searching.

Figure 4. Google reverse image search
Source: Fach, 2020.

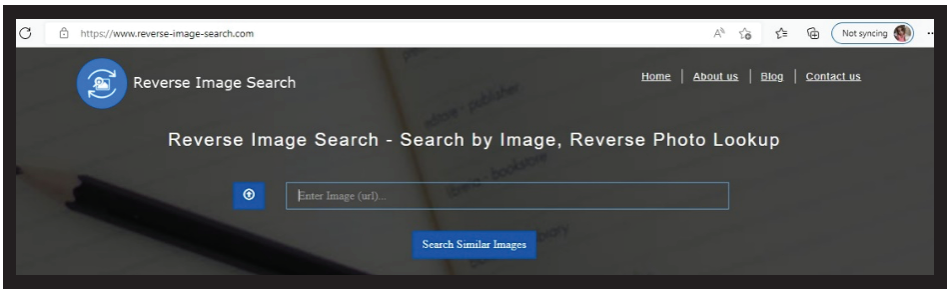

Figure 5. Reverse image search
Source: http://www.reverse-image-search.com

According to Robbins (2022), "The reverse image search platform takes the lead with image numbers, offering over 41.9 billion images and continues to expand" (para 7). Also, Reverse Image Search (2022) reports, "These tools are used as image source locators or image source finders, for obtaining higher resolutions of similar images, looking for images from varying sources, looking for a particular location in the image, and getting the details of an image" (para 2).

Process as reported by Hautala (2022, para 11-15)

"1. The process starts with a browser (i.e., open Google Images on Safari, Firefox, or Chrome). Then, follow the options depicted in Figure 6.
2. Reverse image searches (relying on either Google's Images or Lens service) provide a list of websites displaying the photo or image and a link and description" (para 11-15).

Option1: Click and hold the image. Then drag it to the Google Images search field in another tab. If you're using Safari, you'll need to have the page with the image open in one window and the Google Images search page open in another. To open a new window, you can click File and then New Window, or you can click and hold on a tab to drag it out of the window you're currently navigating in.
Option 2: Take a screenshot of the image and drag that file into the Google Images search field. (Or upload the file from the Google Images search bar, if one prefers so.)
Option 3: Right-click on the image and select Open image in another window. Copy the URL and then paste it into the Google Images search field.
Option 4: If using Chrome, right-click on the image and select Search Images with Google Lens. Drag the cursor over the image to select as in a screenshot.

Figure 6. Reverse image search process
Source: Hautala, 2022, para 11-15.

Reliability

"Journalists can use the reverse search option to find the source of an image or to know the approximate date when a picture was first published on the Internet" (Labnol, 2022, para 4).

Reverse Image Search: "Is an image retrieval query technique that is content-based and the sample image is given to Content-based image retrieval (CBIR) system, and then the search is centered upon the sample image and formulating a search query, in terms of data retrieval" (Latif, Rasheed, Sajid, et al., 2019, p. 2; Content Arcade, 2022, para 2). Two tools are shown earlier (Figures 4 and 5) namely 'Google reverse image search and 'Reverse image search' that lead to similar results..

E. TinEye

> Robbins (2022) posit that "In a single day, a whopping total of 300 million photos find their way to the web. It can be tough to figure out who claims rightful ownership of what picture" (para 2). TinEye is another image retrieval query tool. Robbins (2022) contends that "TinEye was the first of its kind, using image identification technology to operate" (para 7). TinEye is "an image search and recognition company. It has expertise in computer vision, pattern recognition, neural networks, and machine learning" (TinEye, 2022). "TinEye can quickly find copyright violations, detect image fraud, and shows if a picture was changed, modified, or resized from its original state" (Robbins, 2022, para 8).

Process (applied to Twitter rumors case)

TinEye search uses the 'Reverse Image Search' technique or can search by image.
See Figure 7.

- Option 1. Uploading an image to the TinEye search engine.
- Option 2. Searching by URL.
- Option 3. Simply drag and drop images to start the search.

Reliability

"TinEye constantly crawls the web and adds images to its index. Today, the TinEye index is over 56.5 billion images" (TinEye, 2022).

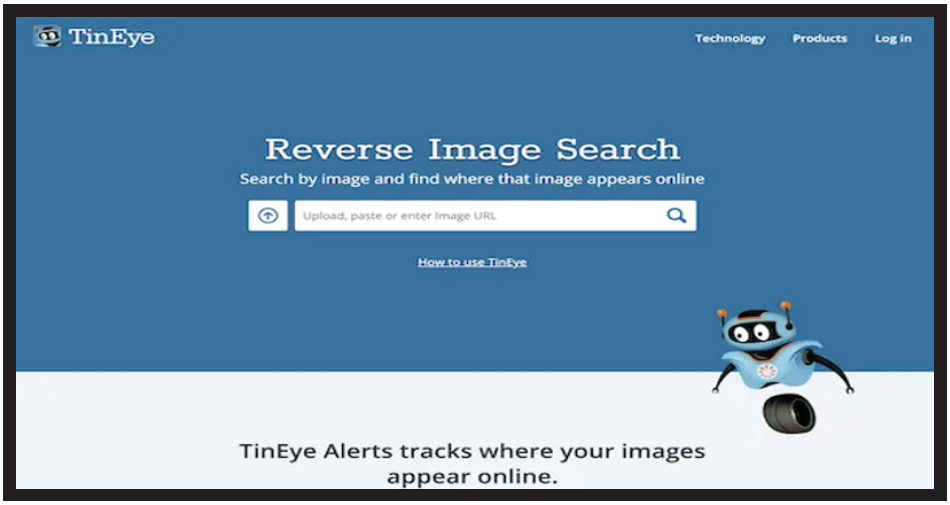

Figure 7. TinEye
Source: Robbins, 2022

F. InVID

With the rapid spread of fake news and disinformation, besides other means, to confuse social media users, many tools with a focus on the fight through "Human, Crowd, and Artificial Intelligence" have been developed (InVid, 2022).
InVID's vision capitalizes on its "innovation action to develop a knowledge verification platform to detect emerging stories and assess the reliability of newsworthy video files and content spread via social media" (InVid, 2022a). This project was funded by the European Union (InVid, 2022b).

Process and Reliability

InVid platform "enables novel newsroom applications for broadcasters, news agencies, web pure-players, newspapers, and publishers to integrate social media content into their news output. They do not have to struggle to know if they can trust the material or how they can reach the user to ask permission for re-use" (InVid, 2022b).

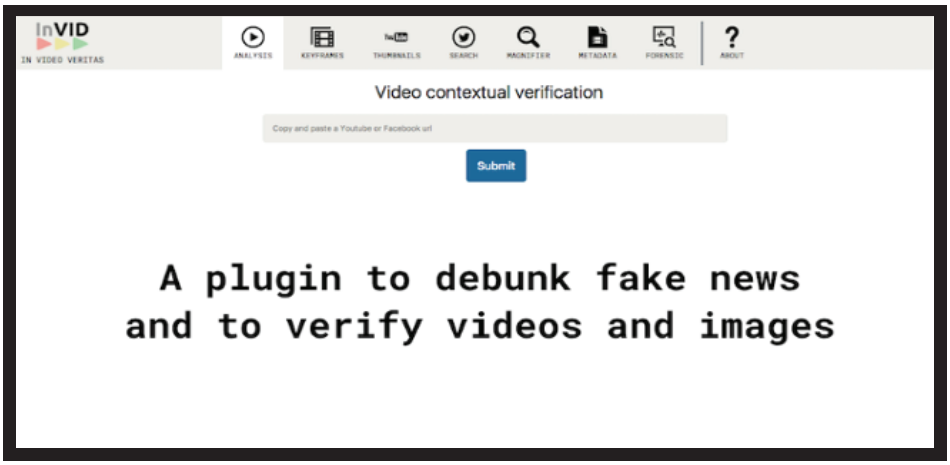

Figure 8. InVid Verification Platform
Source: https://www.invid-project.eu/tools-and-services/invid-verification-plugin/

InVid platform provides tools that are multi-functional as depicted in Exhibit 2, quoting content from InVid (2022c, para 2).

Exhibit 2: *InVid platform available functions*	
1	Allow the end user to get contextual information quickly on Facebook and Youtube videos.
2	Perform reverse image search on Google, Baidu, or Yandex search engines.
3	Fragment videos from various platforms (Facebook, Instagram, Youtube, Twitter, and Daily Motion) into keyframes.
4	Enhance and explore keyframes and images through a magnifying lens.
5	Query Twitter more efficiently through time intervals and many other filters.
6	Read video and image metadata, to check the video copyrights, and apply forensic filters on still images.

Source: InVid, 2022c, para 2.

To access the InVid plugin (*see Figure 8*):

- "Open InVID launches the plugin
- Video URLs display the URL of a video presentation on a web page
- Image URLs display the URL of an image present on a web page" (InVid, 2022c, para 3)

Conclusion

This study responds to the research's main question "What are the methods and tools adopted by artificial intelligence to detect fake news? Especially, on social media platforms, depending on artificial intelligence laboratories." Moreover, this paper descriptively assessed six methods and tools from different aspects: Technically, process-wise, and beneficially as well as their roles in mitigating fake news, misinformation, and unethical use of photos, pictures, and videos on social media sites. Hence, it adds insight to end-user journalists, reporters, content writers, and media firms.

Although the tools and methods discussed in this paper originated from artificial intelligence and machine learning algorithms, the following urgent question, "Can artificial intelligence help end fake news?" continues to present itself.

Many researchers around the world contributed and continue to contribute with best practices and newly developed methodologies and approaches to answer the set question. However, as technology evolves at a quicker pace, its applications are as well accelerated. But the issue of ethical use remains a challenge (Cassauwers, 2019). Next, three continuing challenges and possible solution projects are presented (among many other existing cases):

1. The Fandango Project

> "FANDANGO aims to aggregate and verify different typologies of news data, media sources, social media, open data, to detect fake news and provide a more efficient and verified communication for all European citizens" (CORDIS, 2022).
>
> The FANDANGO project started on January 1st, 2018 and ended on March 31st, 2021. Ended achieving its aim "to break data interoperability barriers providing unified techniques and an integrated big data platform to support traditional media industries to face the new "data" news economy with a better transparency to the citizens under a Responsible, Research, and Innovation prism" (para 1). According to Cassauwers (2019) quoting Francesco Nucci, applications research director at the Engineering Group, Italy, "the project has three components: "The first is 'content-independent detection' using tools and methods [discussed in this paper beside other means]; the second component is "spotting false claims in the content' referring to human fact-checkers, and look for online pages or social media posts with similar words and claims; the third dimension is allowing journalists to respond to fake news by pooling together national data to address claims or even applying data from the European Copernicus satellites" (Cassauwers, 2019, para 7-12).

2. The Global Disinformation Index (GDI)

It "collects data on how misinformation – or disinformation, when deliberate – travels and spreads. The GDI index, put out by a US-based non-profit organization, can help governments, media professionals, and other web users assess the trustworthiness of online content" (International Telecommunication Union (ITU), 2022, para3).
This index uses the latest AI tools and techniques. The GDI triages (methodizes, prioritizes, emphasizes, and orders) "unreliable content from several of the world's most prominent news markets. Combining AI results with independent human analysis, the index then rates global news publications based on their respective disinformation risk scores" (ibid, para 5).

3. Al Jazeera Media Institute

Al Jazeera's network consists of 16 channels and news portals. According to El Gody (2021), these entities "work independently when it comes to its organizational structure, editorial policy, and target audience. Al Jazeera network follows a "dynamic" structure with an integration of interest" (El Gody, 2021, p. 27). Knowing that "source verification and managing organizational resources is an acute dilemma." Al Jazeera opted to use "AI, ML, and Natural language processing (NLP) to automate the process of identifying fake news to separate the 'truth' from 'fake' in the news field" (El Gody, 2021, p. 5).
Al Jazeera deals with and verifies fake news and misinformation following several methods and tools depicted in Exhibit 3.

Exhibit 3: ***Al Jazeera network against fake news***

A. A central social media team: Is designed to supervise the work of the local social media teams. Its purpose is to suppport local teams with possible verified sources and assist them with fact-checking and resource allocations.

B. A central agency for monitoring and news verification, "Sanad": Is designed to help journalists with in-depth source analysis and suggestions for source allocation.

C. A research and development team: works closely with the IT application department on infrastructure issues and technical support, including developing programs-several using machine learning -that help journalists verify their sources and information

Source: El Gody, 2021, pp. 27-28.

Concluding Facts and Recommendations:

- Fake news continues to rock the user world. There is a dire need for the continuous development of technologically advanced tools that exploit the power of AI, Big Data, and ML to mitigate, control, and possibly stop fake news authoring and dissemination, and to prevent the spread of misleading and false news.

- Artificial intelligence laboratories support the true capabilities of AI in combating fake news misinformation and building ready-to-use technology solutions and analytics platforms.

- AI, ML, and Big Data work together by integrating efforts to help detect and prevent fake news by collecting, supporting beneficial analytics, and verifying as solutions to a large database and analytical problems.

- AI has been able to successfully discern between human and machine-generated content (Botometer).

- Large companies dealing with technology and social media (for example, Facebook, Twitter, and U-tube) are working very hard on fake news automatic detection and identification using artificial intelligence.

- There is a dire need to hire people with expertise to work with AI to verify data accuracy, because successful AI and ML tools rely on human experts and researchers to detect fake news like Snopes and Pheme.

Fake news isn't just a media problem, but also a social and political problem. Its roots are in technology, which makes the social implications more significant, i.e., “increased political polarization, greater partisanship, and mistrust in mainstream media and government” (Anderson and Rainie, 2017). It is a known fact that solving the problem of fake news requires collaboration across disciplines. The best way to stop and eradicate fake news is “to depend on people, motivate them to be critical thinkers, and not take every story at face value” (Bouygues, 2019). It is also encouraged to use artificial intelligence techniques and tools to detect fake news before sharing any information, especially on social media platforms; in particular, if the post is emotionally based to effectively get the people's attention. Vosoughi, Roy, and Aral’s (2018) research highlighted “the role emotions play when sharing news on social media and that reading true news mostly produces feelings of joyfulness, unhappiness, expectation, and trust. Also, reading fake news produces amazement, anxiety, shock, and repulsion. It is suggested these emotions and feelings play an important role when deciding to share something on social media” (p. 1146).

News organizations and volunteers in partnership with social media should train users on AI, making it easier for many people to tell facts from fake. That could decrease the chances that ‘fictional and misleading’ stories would gain popularity online. In support of such action, Exhibit 4 depicts the global move towards efforts integration to foster integrity and trust in combatting fake news.

Exhibit 4: Global 'Trust' initiatives

1. **News Guard** is hiring journalists to rate news content by trustworthiness (newsguardtechnologies.com);
2. **The Trust Project** is devising 'trust indicators' to increase transparency for users (thetrustproject.org);
3. **Trusting News** is working with local US newsrooms to develop specific trust-building solutions (trustingnews.org);
4. **The News Integrity Initiative** is supporting various projects 'to foster informed and engaged communities, combat media manipulation, and support inclusive, constructive, and respectful civic discourse' journalism.cuny.edu):
5. **The Journalism Trust Initiative** is a media self-regulatory initiative to combat disinformation online (rsf.org);
6. **Deepnews.ai is working** to use AI and machine learning to surface higher-quality content (deepnews.ai);
7. **The 'verified accounts' initiative from Twitter** (help.twitter.com) uses a blue badge to alert users "that an account of public interest is authentic."

Source: Wilding, Fray, Molitorisz, and McKewon, 2018, p. 33

Note: *This paper has been published in Žurnalistikos tyrimai, 2022. 16, pp. 39-71.*

References

Ada. (2021, November 4) *Why is a horizontal approach to AI the way to go?*'. Available at: https://iris.ai/technology/why-is-a-horizontal-approach-to-ai-the-way-to-go-ai-across-domains/ (Accessed: 18 October 2022).

Anderson, J. and Rainie, L. (2017, October 19) *The Future of Truth and Misinformation Online*. Available at: https://www.pewresearch.org/internet/2017/10/19/the-future-of-truth-and-misinformation-online/ (Accessed: 23 October 2022).

Arora, S. (2020, January 29) *Supervised vs Unsupervised vs Reinforcement.* Available at: https://www.aitude.com/supervised-vs-unsupervised-vs-reinforcement/ (Accessed: 19 October 2022).

Barfield, W.A. (2021) '*Systems and Control Theory Approach for Law and Artificial Intelligence: Demystifying the Black-Box*', J, 4, pp. 564–576. https://doi.org/10.3390/j4040041

Bhikadiya, M. (2020, October 5) *The startup Fake News Detection Using Machine Learning*. Available at: https://medium.com/swlh/fake-news-detection-using-machine-learning-69ff9050351f (Accessed: 22 June 2022).

Botometer. (2022a) *Botometer: An OSoMe project (bot•o•meter)*. Available at: https://botometer.osome.iu.edu/ (Accessed: 20 October 2022).

Botometer (2022b) FAQ: *Frequently Asked Questions*. Available at: https://botometer.osome.iu.edu/faq#which-score(Accessed: 20 October 2022).

Bouygues, H.L. (2019, November) *Fighting Fake News: Lessons From The Information Wars*. Reboot Elevating Critical Thinking. Available at: https://reboot-foundation.org/wp-content/uploads/_docs/Fake-News-Report.pdf (Accessed: 23 October 2022).

Cassauwers, T. (2019, April 15) *Can artificial intelligence help end fake news?* Available at: https://ec.europa.eu/research-and-innovation/en/horizon-magazine/can-artificial-intelligence-help-end-fake-news (Accessed: 22 October 2022).

Content Arcade. (2022) *Reverse Image Search [Blog]*. Available at: http://www.reverse-image-search.com (Accessed: 21 October 2022).

CORDIS-European Union. (2022). ***FA****ke News discovery and propagation from big* ***D****ata* ***AN****alysis and artificial intelli****G****ence* ***O****perations.* doi: 10.3030/780355. Available at: https://cordis.europa.eu/project/id/780355 (Accessed: 22 October 2022)

Dapcevich, M. (2022, June 2) *Do These Images Show MRIs of Fetuses? When science becomes nightmarish*. Available at: https://www.snopes.com/fact-check/mris-of-fetuses/ (Accessed: 20 October 2022).

DataReportal. (2022a, February 15). *Digital 2022 Lebanon-February 2022 v01*. Available at: https://www.slideshare.net/DataReportal/digital-2022-lebanon-february-2022-v01 (Accessed: December 12 2022)

DataReportal. (2022b, February 15). *Digital 2022 Lebanon-February 2022 v01*. Available at: https://datareportal.com/reports/digital-2022-lebanon?rq=lebanon (Accessed: 11 December 2022).

Davis, C.A., Varol, O., Ferrara, E., Flammini, A. and Menczer, F. (2016) '*BotOrNot: A System to Evaluate Social Bots*'. Proceedings of the 25th International Conference Companion on World Wide Web April 2016 Pages 273–274. https://doi.org/10.1145/2872518.2889302

El Gody, A. (2021) *Using Artificial Intelligence in the Al Jazeera Newsroom to Combat Fake News*. Al Jazeera Media Institute, Doha, Qatar. Available at: https://institute.aljazeera.net/sites/default/files/2021/Using%20Artificial%20Intelligence%20in%20the%20Al%20Jazeera%20Newsroom%20to%20Combat%20Fake%20News.pdf (Accessed: 23 October 2022).

Evon, D. (2022, June 8) *How to Spot a Deepfake*.
Available at: https://www.snopes.com/articles/423004/how-to-spot-a-deep-fake/?utm_term=Autofeed&utm_medium=Social&utm_source=Facebook#Echobox=1655933731 (Accessed: 18 June 2022)

Fach, M. (2020, July 30) '*How to Do a Reverse Image Search (Desktop and Mobile)*', [Blog]. Available at: https://www.semrush.com/blog/reverse-image-search/ (Accessed: 21 October 2022).

Global Stat. (2022, November). *Social Media Stats*. Available at: https://gs.statcounter.com/social-media-stats/all/lebanon (Accessed: 12 December 2022).

Gottfried, J. (2019, June 14) *About three-quarters of Americans favor steps to restrict altered videos and images*. Pew Research Center. Available at: https://www.pewresearch.org/-fact-tank/2019/06/14/about-three-quarters-of-americans-favor-steps-to-restrict-altered-videos-and-images/. (Accessed: 18 October 2022)

Hautala, L. (2022, April 6) *Reverse Google Image Search Can Help You Bust Fake News and Fraud*. Available at: https://www.cnet.com/news/privacy/reverse-google-image-search-can-help-you-bust-fake-news-and-fraud/ (Accessed: 21 October 2022).

Hawking, S. (2016, October 20) Stephen Hawking warns of dangerous. Available at: https://www.bbc.com/news/av/technology-37713942 (Accessed: 18 October 2022).

Hejase, H.J. and Sabra, Z. (1999a) 'Is Lebanon Ready for Robotics?' *Proceedings of the Second International Al-Shaam Conference on Information Technology*, Damascus, Syria, April 26-29, 1999. Available at: https://www.researchgate.net/publication/236883861_Is_Lebanon_Ready_for_Robotics (Accessed: 20 November 2022).

Hejase, H.J. (1999b) 'Automation Technology and Management Attitude towards its Implementation: A Lebanese Case Study,' *Proceedings of the 11th. Arab International Conference on Training and Management Development*, Cairo, Egypt, April 27-29, 1999. doi:10.13140/2.1.1417.5045. Available at: https://www.researchgate.net/publication/236883842_Automation_Technology_and_Management_Attitude_towards_its_Implementation_A_Lebanese_Case_Study (Accessed: 20 November 2022).

Hejase, A.J. and Hejase, H.J. (2013) *Research Methods: A Practical Approach for Business Students*. 2nd edn. Philadelphia, PA, USA: Masadir Incorporated.

Ho, E. (2018, January 14) *4 tips for spotting fake news, with Google Reverse Image Search and other online tools*. Available at: https://www.scmp.com/yp/report/journalism-resources/article/3072927/4-tips-spotting-fake-news-google-reverse-image (Accessed: 21 October 2022)

International Telecommunication Union (ITU). (2022, May 2) *How AI can help fight misinformation*. Available at: https://www.itu.int/hub/2022/05/ai-can-help-fight-misinformation/ (Accessed: 22 October 2022).

InVid. (2022a) *Invid project*. Available at: https://www.invid-project.eu/ (Accessed: 21 October 2022).

InVid. (2022b) *InVid Description*. Available at: https://www.invid-project.eu/description/ (Accessed: 22 October 2022).

InVid. (2022c) *InVid Verification Plugin*. Available at: https://www.invid-project.eu-/tools-and-services/invid-verification-plugin/ (Accessed: 22 October 2022).
Javatpoint. (2021) Difference between Artificial intelligence and Machine learning. Available at: https://www.javatpoint.com/difference-between-artificial-intelligence-and-machine-learning (Accessed: 18 October 2022)

Kaelbling, L.P., Littman, M.L. and Moore, A.W. (1996) 'Reinforcement learning: a survey'. *J Artif Intell Res*. 4, pp. 237–85.

Kaplan, A. and Haenlein, M. (2019) 'Siri, Siri, in my hand: Who's the fairest in the land? On the interpretations, illustrations, and implications of artificial intelligence', *Business Horizons*, 62, pp. 15–25.

Katie (2019) *The real reason they discourage MRIs during pregnancy is that then people would realize they're incubating nightmare demons and would be rightfully terrified*' [Twitter: @ZiziFothSi]. Available at: https://twitter.com/ZiziFothSi/status/1395039903440900101 (Accessed: 22 June 2022)

Kiely, E. and Robertson, L. (2016, November 18). *How to Spot Fake News*. Available at: https://www.factcheck.org/2016/11/how-to-spot-fake-news/ (Accessed: 18 October 2022].

Kochkina, E., Liakata, M. and Zubiaga, A. (2018a) '*All-in-one: Multi-task Learning for Rumour Verification'. In Proceedings of the 27th International Conference on Computational Linguistics*, pp. 3402–3413, Santa Fe, New Mexico, USA. Association for Computational Linguistics. https://aclanthology.org/C18-1288.pdf

Kochkina, E., Liakata, M. and Zubiaga, A. (2018b) '*PHEME dataset for Rumour Detection and Veracity Classification. figshare. Dataset*'. https://doi.org/10.6084/m9.-figshare.6392078.v1

Labnol. (2022) *Reverse Image Search*. Digital Inspiration. Available at: https://www.labnol.org/reverse/ (Accessed: 21 October 2022)

Lahby, M., Pathan, ⁦-S. K. and Maleh, Y, Mohamed, W., & Yafooz, S. (Eds)⁩ (2022) '*Combating false news with computational intelligence techniques*', (first edition), Berlin, Germany: Springer.

Latif, A., Rasheed, A., Sajid, U., Ahmed, J., Ali, N., Ratyal, N.I., Zafar, B., Hanif Dar, S.D., Sajid, M. and Khalil, T. (2019) 'Content-Based Image Retrieval and Feature Extraction: A Comprehensive Review', *Hindawi Mathematical Problems in Engineering* 2019, pp. 1-21. Article ID 9658350. https://doi.org/10.1155/2019/9658350

Lu, J., Wu, D., Mao, M., Wang. W. and Zhang, G. (2015) 'Recommender system application developments: a survey'. *Decis Support Syst*, 74, pp. 12–32.

Marr, B. (2018, May 16) *Fake News And How Artificial Intelligence Tools Can Help*. Forbes. Available at: https://www.forbes.com/sites/bernardmarr/2018/05/16/-fake-news-and-how-artificial-intelligence-tools-can-help/?sh=30d694c6271d (Accessed: 18 October 2022)

McCarthy, J. (2022). *What is AI? / Basic Questions*. John McCarthy: Stanford University. Available at: http://jmc.stanford.edu/artificial-intelligence/what-is-ai/index.html#:~:text=What%20is%20artificial%20intelligence%3F,methods%20that%20are%20biologically%20observable (Accessed: 18 October 2022)

Napoleoncat. (2022a, November). *Facebook users in Lebanon-November 2022.* Available at: https://napoleoncat.com/stats/facebook-users-in-lebanon/2022/11/ (Accessed: 12 December 2022)

Napoleoncat. (2022b, November). *Instagram users in Lebanon-November 2022*. Avaialble at: https://napoleoncat.com/stats/instagram-users-in-lebanon/2022/02/#:~:text=There%20were%202%20300%20200,user%20group%20(733%20600). (Accessed: December 12).

Nof, S.Y. (2009) *Springer Handbook of Automation*. Springer Science & Business Media.

OSOME. (2022) *OSoMe*. Available at: https://osome.iu.edu/ (Accessed: 20 October 2022).

Oxford Dictionaries. (2022) *meme*. Available at: https://en.oxforddictionaries.com/definition/meme (Accessed 19 October 2022)

Palma, B. (2022, June 15) *No, Vaccines Aren't Linked to Sudden Adult Death Syndrome*. Available at: https://www.snopes.com/fact-check/vaccines-sudden-adult-death-syndrome/ (Accessed: 21 June 2022)

Parlett-Pelleriti, C.M., Stevens, E., Dixon, D. and Linstead, E.J. (2022) 'Applications of Unsupervised Machine Learning in Autism Spectrum Disorder Research: a Review'. *Rev J Autism Dev Disord* (2022), pp. 1-16. https://doi.org/10.1007/s40489-021-00299-y

Pheme. (2022) *About Pheme*. Available at: https://www.pheme.eu/ (Accessed: 19 October 2022).

Reverse Image Search. (2022) *Reverse Image Search - Search by Image, Reverse Photo Lookup*. Accessed at: https://www.reverse-image-search.com/ (Accessed: 20 November 2022).

Robbins, R. (2022) TinEye VS Google VS ImageRaider: *Reverse Image Search Tools Compared*. Available at: https://clictadigital.com/tineye-vs-google-vs-imageraider-reverse-image-search-tools-compared/ (Accessed: 21 October 2022).

Rosenthal, C. (2018, March 19) *Best Practice: International Fact-Checking Network*. Available at: https://newscollab.org/2018/03/19/best-practice-international-fact-checking-network/ (Accessed: 22 June 2022).

Roszell, O. (2021, December 8) *AI Learned How to Generate Fake News, and It's Terrifying. Medium: CodeX*. Available at: https://medium.com/codex-/ai-learned-how-to-generate-fake-news-and-its-terrifying-37cadc7e94a7 (Accessed: 22 June 2022)

Russell, S.J. and Norvig, P. (2009) *Artificial Intelligence: A Modern Approach*. Upper Saddle River, New Jersey: Prentice Hall.

Sarker, I.H. (2021) Machine Learning: Algorithms, Real-World Applications, and Research Directions. *SN COMPUT. SCI.* 2, pp. 160-181. https://-doi.org/10.1007/s42979-021-00592-x

Shao, G. (2020, January 17) *What 'deepfakes' are and how they may be dangerous.* CNBC. Available at: https://www.cnbc.com/2019/10/14/what-is-deep-fake-and-how-it-might-be-dangerous.html. (Accessed: 18 October 2022).

Singh, A.R. (2017) *How Can Artificial Intelligence Combat Fake News?* GeoSpatial World. Available at: https://www.geospatialworld.net/blogs/can-artificial-intelligence-combat-fake-news/ (Accessed: 18 October 2022).

Snopes. (2022a) *About Us: Snopes is the internet's definitive fact-checking resource*. Available at: https://www.snopes.com/about/ (Accessed: 22 June 2022).

Snopes. (2022b) *Frequently Asked Questions*. Available at: https://www.snopes.com/-faqs/#faq-question-1627191156282 (Accessed: 18 October 2022).

Susarla, A. (2018, August 2) *How artificial intelligence can detect – and create – fake news*. Available at: https://msutoday.msu.edu/news/2018/how-artificial-intelligence-can-detect-and-create-fake-news (Accessed: 17 October 2022).

Tai, M.C. (2020) 'The impact of artificial intelligence on human society and bioethics', *Tzu Chi Med J.*, 32(4), pp. 339-343. doi: 10.4103/tcmj.tcmj_71_20.

The Conversation. (2018, May 3) *How Artificial Intelligence Can Detect, and Create, Fake News.* Neuroscience. Available at: Retrieved June 22, 2022, from https://neuroscience-news.com/ai-fake-news-8951/ (Accessed: 22 June 2022).

TinEye. (2022) *How to use TinEye*. Available at: https://tineye.com/how (Accessed: 21 October 2022).

Twitter (2020, May 20) *Botometer*. Available at: https://twitter.com/botometer/status/1263120334695301127?lang=mr (Accessed: 20 October 2022)

Vosoughi, S., Roy, D. and Aral, S. (2018, March) 'The Spread of True and False News Online', *Science*, 359(6380), pp. 1146–1151. https://10.1126/science.aap9559

Watson, P. (2018, April 6) *Artificial intelligence is making fake news worse.* Available at: https://www.businessinsider.com/artificial-intelligence-is-making-fake-news-worse-2018-4 (Accessed: 22 June 2022).

Wilding, D., Fray, P., Molitorisz, S. and McKewon, E. (2018) *The Impact of Digital Platforms on News and Journalistic Content*. University of Technology Sydney, NSW. Available at: https://www.accc.gov.au/system/files/ACCC+commissioned+report+-+The+impact+of+digital+platforms+on+news+and+journalistic+content,+Centre+for+Media+Transition+(2).pdf (Accessed: 23 October 2022).

Zhang, Q., Lu, J., and Jin, Y. (2021) 'Artificial intelligence in recommender systems', *Complex Intell*. Syst. 7, pp. 439–457. https://doi.org/10.1007/s40747-020-00212-w

Zubiaga, A., Aker, A., Bontcheva, K., Liakata, M. and Procter, R. (2018) 'Detection and resolution of rumours in social media: A survey', *ACM Comput. Surv*., 51(2), pp. 32-36. https://doi.org/10.1145/3161603

NEEDED CURRENT CHARACTERISTICS OF A GOOD IRANIAN GRADUATE IN JOURNALISM AND MEDIA STUDIES

[1]Omid Ali Masoudi
Email: masoudi@soore.ac.ir

Abstract: This study aimed to identify the current characteristics of a good Iranian graduate in the field of journalism and media studies in Iran using the qualitative research method of thematic analysis. The study's population consists of 45 master's degree students in journalism, promotion, communication, and cultural studies at the Soore University of Tehran who have been working in the media for at least two years after earning their bachelor's degree. A sample of 25 purposeful students was invited for unstructured interviews. Results showed five (5) comprehensive themes and 11 organizing themes characterizing a good graduate. Comprehensive themes included 1- Observing professional ethics while respecting ethics and objectivism in reporting events; 2- Being brave, having the courage to enter events such as war, earthquake, flood, etc., and having the intuition to reach, know, and locate news and news event to find the subject; 3- Being a professional in knowing the subject, able to prepare material and increase others' knowledge; 4- being competent in digital journalism, expressed in terms of cyberspace presence and functionality skills in this space; and, 5 - literate with international involvement, equipped with competencies in foreign languages, dealing with global organizations such as UNESCO, and being acquainted with journalistic events of the world.

Keywords: Good Graduate, Competencies, Professional Journalism, International Recognition, Digital Journalism, Iran

Introduction

With the advancement of the press in Iran and the world, the issue of journalism education has been under the spotlight. Journalism education was experimentally developed in the United Kingdom, meanwhile, the United States of America taught journalism experiences in colleges, and France provided a combination of experience and education.

The source of the newspaper as it is known today is Europe. It did not take shape until the eighteenth century. "In 1775, newspapers printed on a regular schedule (weekly, tri-weekly, or daily) could be found in cities throughout England and North America, not to mention Scotland, Ireland, and the West Indies" (Slauter, 2015, pp. 1-2). On the other hand, wall posters being the forerunners of the newspaper in Europe were published first in Venice in 1566. Aliaksandrau (2013) posits, "The first newspaper ever, Notizie Scritte (Written notices), launched by the government of Venice in 1556, completely justified its name; was handwritten and noticed – not only by Venetian citizens of the time, but it was also widely accepted to have been the first paper to be sold – for a fee of one coin, called a 'Gazeta.' So not only did it give a name to newspapers, but it also turned news into an industry" (p. 34).

v "Thirty copies of this newspaper, the Gazette, are kept in the Library of Florence" (Parthasarathy, 2002, p. 7). On March 11, 1702, "the first daily newspaper in London

*1 Associate Professor, Department of Communication, Faculty of Culture and Communication, Soore University, Tehran, Iran

was published, entitled the 'Daily Courant'. The newspaper E. Malta printed and published it, but it did not last more than a few days and was closed. But, Samuel Bakli completely revived it and became a prominent newspaper" (Ibid, p. 10). Back then, good journalists were writers best known as novelists. In the eighteenth century in England, writers and journalists such as Daniel Defoe (author of Robinson Crusoe), Jonathan Swift (author of Gulliver's Travels), and Henry Fielding came to the fore. Defoe is perhaps the most prominent journalist of his time (McKay, 2008). He was the publisher and editor of the weekly Review magazine. In the beginning, well-known essay writers such as Steele and Edison began publishing Tatler and Spectator (Milbourne, n.d.). Later on, Dr. Samuel Johnson continued his work on The Rambler and The Idler. Johnson himself was one of the first parliamentary news reporters (Folkenflik, 2022). Parthasarathy (2002) says:

> *"No one in the literate society of the early eighteenth century considered journalism to be all the more interesting and all-profitable. Amongst the many people who later became novelists, essayists, and even playwrights and poets, they found themselves writing articles for newspapers and calling themselves journalists for a long time. Over the years, they have helped to improve the standards of writing and reporting to a higher degree" (Ibid, p. 10).*

The first proposal to separate communications from the literature group happened on March 25, 1913, at the General Conference of the New England and North Atlantic. Proponents of this separation case have been working to make the actual transcript available online. They had acquired new sciences like psychology that could fully justify the separation of communication from literature (Mohsenianrad, 1994, p. 8).

Altbach (1987) asserts that "The starting point for academic journalism training should be sought in communication education. Teaching communication in a new way began in the United States at the time Harvard University was founded. That year, a communications training course for Christian missionaries in the United States was organized. The language used was Latin, and students were required to use communication methods in a deductive framework to defend Christian ideas (p. 42).

Mohsenianrad (1994) posits that "after World War I, the first higher education schools for journalists were founded. For instance, the London School of Journalism began in 1919 with the help of well-known British editors. Later, a three-year journalism course was offered at the Faculty of Anthropology of the University of London. In addition, a one-year journalism training course was authored in 1949 and taught to students from English-speaking countries and colonial countries at the London Polytechnic. Specialized fields of journalism were also created" (p. 9). On the other hand, Dunn (2018) reports, "Around 1868, in the United States, Robert E. Lee, President of Washington College, encouraged journalism education to restore the southern states and progress for regional newspapers" (p. 8). Moreover, Folkerts, Hamilton, and Lemann (2013) report "By the 1860s, some university educators were discussing the training of journalists as a way of improving journalistic behavior, and universities began to experiment with courses" (p. 10). With time elapsed, the foundation of formal journalism programs mushroomed throughout the United States of America, as reported by Folkerts et al. (2013) and illustrated in Exhibit 1.

Exhibit 1: Foundation of journalism programs in the USA	
1	From 1870 to 1900, the number of editors and journalists increased by a factor of three, and Journalism courses at universities began to appear.
2	By 1900, courses were offered at Cornell and Washington College, at public universities in Pennsylvania, Illinois, Kansas, and Missouri.
3	In 1903, the wealthy publisher Joseph Pulitzer announced a major gift to Columbia University to establish the school of journalism and a series of prizes for journalists.
4	In 1908, the University of Missouri established the first separate academic unit with a specific degree in journalism.
5	By 1910, departments or schools of journalism were established at the University of Wisconsin, the University of Washington, and New York University.
6	Journalism programs were in effect by 1920 at public universities in Georgia, Indiana, Iowa, Kansas, Minnesota, Nebraska, and Ohio.
7	In the private university realm, Columbia University opened its School of Journalism in 1912.
8	Northwestern University opened its School of Journalism in 1921.

Source: Folkerts et al., 2013, p. 8.

After World War II, Mohsenianrad (1994) reports, "In 1948, the University of Georgia established the specialty of editing. In 1955, 2048 students of journalism schools in the United States graduated. Since 1960, the specialties of agricultural journalism and engineering journalism have been established at Iowa State University. In 1986, the number of journalism faculties reached 107" (p. 9).

Journalism education in Iran

Mazrooei, Sabahi, and Zanconato (2019) quoting excerpts from Shahidi's (2007) book, assert that the "first training course for journalists was organized in Tehran in 1939 by the Ministry of Culture and had among its teachers some of the leading literary figures of the time. In 1965 the publisher of the newspaper Keyhan, Mostafa Mesbahzadeh, set up a College for Social Communication Sciences, with four years of bachelor's degree (BA) courses in journalism, photography, public relations, translation, and filmmaking. In 1969 the Higher School of Cinema and Television was founded, with the ownership of the State television and radio corporation. After the

1979 revolution, all universities were shut down to enforce a policy for the elimination of secular and leftist elements among teachers and students. It was only in the 1980s that education in journalism reemerged, for the first time with courses organized by the Department of Social Communication Sciences at the Allameh Tabatabai University, controlled by the State" (para 1).

Mohsenianrad (1994) reports that the "statute of the Higher Institute of Press and Public Relations was approved in the autumn of 1967, and later renamed the Faculty of Social Communication Sciences. On June 1, 1971, the first group of students in the journalism department graduated. On average, about 30 students graduated each year. Also, in January 1968, 13 journalism students graduated from the Faculty of Literature of Tehran University, being the first Iranian graduates to study journalism. On March 1968, the National Television Training Center of Iran was opened and considered a local center for internships and theoretical training. It also acted as a platform for the foundation of the Higher School of Television and Cinema. On August 1970, the first entrance exam of the above-mentioned high school was held with the participation of 700 volunteers, of whom 60 were accepted" (Ibid, p. 13).

After the victory of the Islamic Revolution in 1978, there was an acceleration in the establishment of educational institutions and an expansion of communication and journalism education in the media education center, colleges, and universities in Iran. Mazrooei, Sabahi, and Zanconato (2019) contend that “By 2019, there are six universities teaching journalism: Allameh Tabatabai University, Tehran University (also owned by the State), Sooreh Institute of Higher Education (private), Kerman Institute of Higher Education (private), the public Payame Nour University, that offers courses in journalism in 24 branches around the country, and the Iran Broadcasting University, affiliated to the Islamic Republic of Iran Broadcasting (IRIB) that has branches in Tehran, Qom, and Dubai and is specialized in TV and radio journalism and directing” (para 1).

Of the dozens of graduates of the aforementioned institutions, only a few entered the labor market. The reason for not attracting them is the weakness of the press, among other factors. Mohsenianrad (1994) notes,

> *"In Iran, as well as in many developing countries, the graduates of these universities were not attracted to the press. The weakness of the press and their lack of relative independence, the low ability to pay appropriate salaries to these graduates, and the lack of other specialties in the field of social sciences and humanities in these countries were among the main reasons for the lack of attraction" (p. 9).*

Ziabari (2018) comments in strong words, “Journalism in Iran is a big misunderstanding that will not be clarified because there’s no such a thing as independent journalism. There is no trace of serious journalism aimed at challenging the authority and posing serious and fundamental questions that lead to the resolving of major economic, social, and political problems” (para 5).

Based on the above, this paper raises a research concern: "Does attracting graduates in the weak press be considered a good support of the current need for graduates' characteristics, which in many cases will strengthen the press and their

growth?" The obvious response here is yes. Having university graduates and professionals with updated and upgraded competencies would serve the current media and communications sector irrespective of the state of the press, especially if such a sector is looking for improvements to walk along the dynamics of the profession.

Statement of the Problem

Most journalism students in Iran cannot be employed in media organizations after graduation. A few researchers have suggested several factors that cause this problem, including the decrease in the number of professional journalists due to the failure of academic training. The professionalism of the graduates of journalism and media studies is weak, i.e., weakness in “the conduct, aims, or qualities that characterize or mark a professional person” (Merriam-Webster, 2022, professionalism entry). To this end, recognizing the characteristics of a successful graduate can establish a good pattern for journalism and media students, and following a well-defined characteristics pattern increases the cultivation of good graduates for media organizations in the community.

Research Objective

The purpose of this study is to identify the success characteristics needed by graduate students for employment in journalism in Iran.

Research question

What are the current characteristics of a 'good graduate' in journalism and media studies?

Literature Review

Conceptual Framework

Sommerland (1966), writer of the book "Press in Underdeveloping Countries", a member of UNESCO Communications, one of the designers of journalism education in India, the Philippines, Thailand, and Malaysia, and a member of the International Center for Higher Education in Journalism at the University of Strasbourg," says: "A journalist must have the talent, ability, and competence to capture a variety of information, from Spaceships to economic projects, arts, veterinary medicine, political statements, etc., and be able to put such complex issues into simple language and be able to know the abstract of a discussion and to separate the main concepts from the detailed and vulgar ones. Those capabilities are even more necessary in developing countries because many of the audiences of mass media do not know much about everything. A journalist has to record the events and play the role of an interpreter (Sommerland, 1966: 92-93).

Sommerland writes about the characteristics of good journalism that play a key role in the development of their country: "They need to know their social environment, their traditions, cultures, wants and needs of the people, the forces influencing change, national institutions and organizations, their inferences and sociopolitical development practices, and their political and economic development. From an idealistic point of view, a newspaper journalist should be a person with natural aptitude, a journalistic mind (intuition), a research mind, and a person fluent in the language. "In these contexts, he learns professional skills and techniques and brings practical experience" (Ibid: 93).
In the current research, Sommerland's theory has been used to build on comprehensive topics of a good journalism graduate in Iran.

Research Methods

This research is exploratory. It uses the method of thematic analysis. Among the methods of qualitative data analysis, Thematic Analysis is the framework of classification, indexing, and content typology of great importance. Thematic analysis is an inductive-analytic analysis in which the researcher achieves analytical typology through data classification and input and output calibration. This type of analysis primarily seeks to pattern the data (Alhojailan, 2012). In Thematic Analysis, the unit of analysis is more than a word or term; the researcher pays more attention to the context of the data and its subtleties (Namey et al., 2008).

The population of the study is 45 students of master's degree programs in journalism, promotion, communication, and cultural studies at the Soore University of Tehran in Iran who have been working in the media for at least two years after earning a bachelor's degree. Among them, 25 students who were purposefully sampled, were invited for interviews. Nevertheless, to have a clear idea about the reliability of the sample size, the researcher reviewed Hardwick Research's (2022) published resources on the subject. Following the approach used by Hashem et al. (2022) and El Takach et al. (2022), and according to Hardwick, in the case of a population size of ~ 100, a confidence level of 95% [α=5%], and seeking acceptable reliability of 10% ± 2%, the sample size would be between 25 and 50. Therefore, the resultant sample size of 25 would be about ± 10% at the 95% confidence level. Surveying with such a sample would mean that in 90 out of 100 repetitions of the survey, the results will not vary more than ± 10%. Such reliability would be acceptable in qualitative and exploratory research like this one. Moreover, according to Hejase & Hejase (2013), "using interviews can cover in-depth, wide-range of topics" (p. 112).

Twenty-five unstructured interviews were conducted. For a 'good graduate', participants stated 185 topics. These were reduced by eliminating duplicate themes and merging similar ones to achieve 42 basic themes. Among these, 11 organizing themes and finally five (5) inclusive themes were identified as the defining themes of a good journalism graduate.

Validity of the research

The research's validity and reliability were assured using repetitive consultation with professors, consultants, and experts in this field. Their inputs helped eliminate non-valid themes.

Findings

In the pilot research, the expected characteristics of a good graduate were: Interest in journalism, high level of scientific and experimental studies, ability to combine practical work with scientific education, having a goal to work in the media of interest, English language proficiency, media literacy, submitting a scientific and applied dissertation, writing a scientific article in the field of journalism problems, having innovation during education and training, and the ability of professional journalism to work in a specialized field. After interviewing students, additional topics were introduced and examined in two areas: The graduate's character and the moral and academic characteristics.

The character of a good graduate

In defining a journalist, Zelizer (2005) contends that journalism should be his/her first job. A journalist must love his/her work. Love and interest in the profession of journalism make the journalist, while enduring the hardships of work, especially during events such as war, earthquake, flood, etc., and with his/her creativity and professional ability, be able to provide information and solve society's problems and raise awareness.

- ***When asked about journalism, interviewees responded as follows:***

> It is important to *"choose journalism as your first job"* (interview No. 9).
>
> So that the journalist:
> *"Have a lot of interest in his/her work and profession and love it, and exert a lot of effort in the field of interest and field of work. With effort, perseverance, and interaction, the issues and problems in the society, one after the other, are solved" (interview 9).*
>
> Another interviewee commented on the previous statement, *"Let it be raised and resolved and let us have a prosperous Iran, God willing"* (Interview No. 8).
>
> Also*:*
> *"Interested in this profession and having a sense of curiosity, perseverance, etc."*
> (Interview No. 7)

- ***Next, comment for interviewees: On the other hand, to enter many events and prepare the story, a journalist must be a courageous person and not be afraid of anything:***

> *"The most important characteristic of a journalist is to have a questioning and critical view in dealing with news and issues and problems, and to look for how and why them,*

> *and to be able to give appropriate and logical solutions, and to take steps to solve problems and make them transparent"* (Interview No. 20)

- ***Another comment to add: Many journalists are brave in their pursuit of news and information, but they are not brave (do not take risks) in publishing it:***

> *"Be realistic, be brave, write correctly, and stick to each of his writings ..."* (Interview No. 21)
>
> *"Have courage and boldness in writing"* (Interview No. 1)

- ***The interviewer then comments: Such reporters can take risks.***The following are the good qualities of a journalism graduate:

> *"A journalist can take risks and be able to obtain the information he or she needs without fear of experts, politicians, or target individuals"* (Interview No. 4)

- ***The interviewer: Having professional Ethics, and not invading the privacy of individuals is one of the characteristics of a good journalist that the participants in the research stated:***

> *"Protection of their confidential sources of information, protection, and respect for the intellectual property rights of individuals, adherence to the principles and professional ethics of journalism" (Interview No. 20).*

- ***The interviewer: Non-disclosure of the identities of those who provide information to journalists is one of the most critical principles of journalism that any good graduate must adhere to:***

> *"Observing and adhering to fidelity, secrecy, respecting the public interest, and observing the principle of neutrality in presenting reports and news to the target audience and society" (Interview No. 20)*

- ***The interviewer: Having a nose for news (intuition) is also one of the requirements of a good journalism graduate in Iran.*** Kazem Motamed Nejad, a professor of journalism at Allamah Tabatabaei University in Tehran, says about a nose for news:

> *"He/she (the journalist) must have a sharp eye, a strong vision, strong diagnostic power and know what news is interesting, and where, how, and when the news can be obtained"* (Motamed Nejad and Monsefi, 1989, p. 136).

- ***The Interviewer: Having news is one of the most important characteristics of a journalist. He/she should be able to access news sources with curiosity and the understanding that curiosity is embedded in*** the journalist***:***

> *"Professional Talent: A successful journalist must have the inherent characteristics of a journalistic profession, such as curiosity, etc."* (Interview No. 17)

- ***The Interviewer: Identify the news source that is important in identifying and finding the subject:***

> *"The third feature is the ability to identify the correct source for news and reporting"* (Interview No. 4)

- ***The Interviewer: In addition, knowledge of new Information and Communications Technology (ICT) and how to use them will lead to the progress and success of a good graduate.***

> *"Ability to work with technologies of receiving and sending news (email, fax, working with recorders, voice recorders, cameras, mobile phones, the Internet, networks, and social media, etc.). Familiarity with cyberspace and the ability to work in this environment"* (Interviews Nos. 18 and 23).
>
> *"Having basic computer skills, including social media and databases"* (Interview No. 8)

- ***The Interviewer: Ability to use new technologies in the field of journalism, such as networking:***

> *"The ability to network and to produce specialized content for any print media, online, social media, etc. are some of the characteristics that a journalism graduate should have"* (Interview No. 14)
>
> *Also: "Skills in using new technologies, including mobile phones to produce, process, and distribute news"* (Interview No. 7)

- ***The Interviewer: Smartphones and the formation of the citizen-reporter have made the use of mobile phones mandatory for good graduates:***

> *"Skills in using new technologies, including mobile phones to produce, process and distribute news"* (Interview No. 7)

- ***The Interviewer: Another ability of a good journalism graduate is the ability to work in Cyberspace to organize news in this space as well as digital space:***

> *"Ability to set up online news dominating social networks"* (Interview No. 1)
>
> *"The ability to use journalistic information on the web and social networks can also be added"* (Interview No. 4).

Tejedor Calvo and Cervi (2017) analyzed and reviewed a set of ten global highest-ranked universities in media and communications in the last report [2017] of the QS rankings. The authors emphasized digital and social media skills as fundamental requirements. In addition, the points asserted by the interviewees are confirmed by Rkein et al. (2019, 2020) who showed that technology literacy and information literacy have become of concern in an era governed by an ICT-rich knowledge economy that is boosted by artificial intelligence. In addition, El Takach et al. (2022) posit that adopting new information and communications technology has obliged changes in journalistic practices and led to new business models and journalistic practices. El Takach et al. assert that "it's inevitable to train journalists continuously and cultivate journalists fit to function within the digital era" (p. 170).

- ***The Interviewer: The journalist's familiarity with world events and significant international issues makes it necessary for him/her to know a foreign language. The interviewees emphasized the following:***

> *"Familiarity with English to receive news from foreign media"* (Interview No. 1)

- ***"Fluency in English (the dominant language of the Internet and social networks) is noted and needed" (Interview No. 1)***

> "*Familiarity with one or more foreign languages*" (Interview No. 15), but it is not possible to study foreign content without cultural knowledge and familiarity with the date of the event and the news area. So another necessity is expressed:
>
> "*Familiarity with world history and the field of news: One of the conditions for a journalist's success is familiarity with world events and their historical background and roots*" (Interview No. 15).

Being professional

Professional skills that are the result of academic and experimental education in Iranian universities can add professionalism to the personality of the interested student so that he/she can easily enter the market as a competent graduate, after graduation.

- ***The Interviewer: Part of the professional skills is related to subject recognition. Subject recognition techniques are taught at the university.***

> (According to interviewee No. 4),
>
> *"The first skill that a few people possess may have been to analyze events, whether political, economic, etc.*
>
> *The second skill is news production ... instead of conventional copying.*
>
> *The third skill is the ability to identify the correct source for news and reporting.*
>
> *The fourth, having a network of people, i.e., a graduate who can find the right information about the required topics from the relevant sources.*
>
> *The fifth is the ability to communicate properly with the interviewees or the people they want to report on.*
>
> *The sixth can be referred to as the study of a person on various topics. Accurate and up-to-date information is a characteristic of a professional journalist or on the way to becoming a professional."*

An increased emphasis on educating student journalists in information literacy holds the potential to contribute to qualitatively improved journalism. Moreover, knowledge-related work requires thinking, creativity, questioning, interpreting, understanding situations, and adapting to changes (Materska, 2013).

- ***The Interviewer: A good journalism graduate must have an acceptable ability to compile news, conduct interviews, prepare reports, and write articles and commentary during a job interview to be viewed as a professional journalist.***

> *"A journalist should also pay attention to reports, interviews, feature content, soft news, analysis, and so on. In addition to working individually, he/she has to work in teams and groups in some cases. Paying special attention to deadlines and time of the interview, delivery of materials, etc. Having a personal archive. Practicing the writing profession. Working with a variety of media. Writing in various news formats, including news, interviews, features, etc. While working with a variety of media and formats, choose one as the best format for your career"* (Interview No. 15).

- ***The Interviewer: Creating content without knowing the internal policies of the workplace media and the prevailing policies in society, such as legal and customary restrictions on the publication of content can be costly for a good journalist.***

> *"Awareness of national media news policies: Every media outlet has its policies that the reporter must know about and operate within its main framework. Otherwise, he/she will not be able to continue working in that media"* (Interview No. 18)

- ***The Interviewer: Most of the content of media organizations is news and news dissemination. The most important point in obtaining and arranging news for a professional reporter is to know the criteria for selecting the news or the same news values.***

> *"Recognizing news values and having a good pen (i.e., an attractive writing skill) and a large vocabulary to write headlines, reach and know tips, and speed of action in conveying news and reports"* (Interview No. 4).

- ***The Interviewer: Knowing the steps of obtaining news, processing, publishing, and recognizing audience feedback is also among the professional principles of journalism:***

> *"Be familiar with the stages of journalism work, which includes: 1- Information gathering, 2- Information processing, and 3- Feedback and observation of the audience's reaction"* (Interview No. 8).
>
> *The previously stated information-related items are emphasized in the literature. "If education for information competencies is necessary for all students in higher education, it is particularly crucial for students preparing for careers in journalism"* (Bornstein, 2003).

- ***The Interviewer: One of the skills that are unfortunately not considered in journalism courses is 'shorthand'. Journalism students should learn to collect and write in-class notes so that one day they can write down their words without interruption and correctly during interviews with prominent figures such as the President. The interviewee will not wait nor be asked to stop during the interview for notes to be taken! The difficulty lies in the fact that after writing the news, interviewing, reporting, and especially in writing the commentary and the article, it is essential to observe the editing points and the grammar of the language:***

> According to Interviewee No. 18,
>
> *"1- Familiarity with the rules of writing and Persian literature: It is a must to read books related to grammar and the ritual of writing and spelling. The study should be our first task. It helps a lot to increase our vocabulary and make writing easier.*
> *2- Learning the principles and methods of subject finding, organizing, and editing news, interviews, and reports*
> *3- Recognizing news values*
> *4- Ability to take notes and write short-hand"* (Interview No. 18)

It is possible to increase professional journalists' knowledge by studying and getting acquainted with the history and culture of the place of events:

Familiarity with the humanities and social sciences: The journalist must be familiar with other fields within the humanities and social sciences such as anthropology, sociology, etc. Just learning the techniques and tactics of journalism will not lead to success.
According to Gans (2018), "Sociologists and journalists should occasionally study together. Sociology graduate students and interested undergraduate sociology majors might take courses in journalism schools, particularly on news judgment and reporting. Journalism students would benefit from substantive and methodological courses in sociology. Seminars open to both journalism and sociology students would be especially desirable" (p. 9).

- ***The Interviewer: Having specialized knowledge in one field: In addition to learning journalism, to succeed in journalism, one must also have knowledge in other fields, such as language, war, human rights, environment, politics, sports, etc.***

> *Familiarity with world history and news: One of the conditions for a journalist to be successful is to be familiar with world events and their historical background and roots"* (Interview No. 15)

- ***The Interviewer: In today's world, to reflect on local and national news, good graduates must raise the voice of their community to the world by increasing their knowledge, acting professionally, and increasing their knowledge of the international environment. The power of international recognition is achieved through knowledge of global organizations and familiarity with global journalism.***

> *"Learning specialized and comprehensive information about the field of international news activity: here we must know deeply and professionally, know the news sources, each field and its related organizations and institutions, and so on. To appear as an international expert in our field"* (Interview No. 18).

- ***The Interviewer: It is impossible to know world events without the ability to understand the journalistic practices and policies that govern them.***

> *"One must be able to communicate with journalists from other nations and pursue new training in the world to understand international journalism practices and policies governing world news organizations"* (Interview No. 25).

After reviewing and coding in three stages, the basic themes were first identified and then organized, and learning themes were determined according to Table 1.

Table 1: The stages of coding and content analysis

Basic themes Organizing themes: Inclusive themes	Organizing themes	Inclusive themes
Orbital duty of honor ethics	Respect for ethics	Observance of professional ethics
Paying attention to legal restrictions (red lines)		
Preservation and respect for individual property		
Privacy		
Adherence to the principles of professional ethics		
Observance of the Ethics of Objectivism	Objectivity	
Neutrality		
Having fairness		
Observance of cultural and social values		
Observance of fidelity		
Be Bold	Courage	Be Brave
Curiosity		
Sharpness	Intuition relying on inspiration (Nose News)	
Punctiliousness		
Having scientific knowledge and academic knowledge	Cognition of the subject	Being professional
Recognize news sources		
Awareness of current events		
Having the power to find the subject		
Having professional skills in arranging news, conducting interviews, preparing reports & headlines	Ability to prepare content	
Having the power of writing, shorthand, and following the rules of writing		
Familiarity with current issues		
Having the power to analyze issues		
Studying and being interested in the profession of educational journalism	Enhancing knowledge	
Familiarity with the history and culture of society		

Full knowledge of cyberspace	Presence in cyberspace	Ability to digitalize journalism
Ability to work on the Internet		
Familiarity with social networks		
Familiarity with social media	Have digital skills	
Ability to work with new digital equipment in digital space (use of the recorder, etc.).)		
Ability to network	Online content production	
Generate content in Cyberspace		
Ability to set online news		
Having media literacy in the digital space		
Fluency in foreign languages	Understanding global organizations	The Power of international recognition
Familiarity with international news organizationst		
Familiarity with international institutions (such as UNESCO, ITU: International Telecommunication Union, WHO: World Health Organization, etc.)		
Understanding global events	Familiarity with global journalism	
Understanding international news policies		
Understanding international journalism practices		
Familiarity with international journalism training centers		
Familiarity with the ethical charter of journalism in foreign organizations		

Accordingly, by analyzing the content of the interview data, graduate students, most of whom have succeeded in working in the media after graduation, have five comprehensive themes, including professional ethics, courage, professionalism, ability in Digital journalism, and the power of international recognition can be considered for good graduation of journalism and media studies students (**Figure 1**).

Figure 1. Comprehensive Themes of a good graduate

Conclusion

In today's world where we are facing the phenomenon of globalization of news and journalism, in developing countries such as Iran, training good journalists for the media can be an important step. Although the decline in newspaper circulation in countries such as Iran is attributed to factors such as the emergence of new media such as social media, increased paper and print costs, increased transportation and distribution costs, and lack of time to read, the fact is that the lack of manpower professionalism and not having good graduates to attract in the media is one of the most important media issues in developing countries. In fact, "nearly 4 in 5 employers globally report difficulty finding the skilled talent they need in 2023" (Manpower Group, 2023).

To identify the characteristics of a good media journalism graduate in Iran, the researcher conducted unstructured interviews with 25 graduate students of journalism, cultural studies, propaganda, and communications at Soore University in 2022. He classified five (5) comprehensive themes and 11 organizing themes resulting from data coding. These are as follows:

1. Observing professional ethics while respecting ethics and objectivism and avoiding subjectivism in reporting events.

2. Being brave, having the courage to enter events such as war, earthquake, flood, and ..., having newsworthiness, and knowing the news event and its place to find the subject.

3. Being a professional, includes knowing the subject matter (technical knowledge of the major), the ability to prepare material, and increasing knowledge.

4. The ability to manage digital journalism with topics such as the ability to attend Cyberspace and having work skills are expressed in this space.

5. The power of international recognition is gained by knowing a foreign language and being able to recognize world organizations such as UNESCO, the World Health Organization, etc., along with familiarity with journalistic events in the world.

According to the participants in the research, graduates can work with these characteristics as being well prepared in the Iranian media. Nevertheless, according to Aladdine (2022), “Educational institutions should still introduce students to new evolutions of journalism to obtain digital literacy, however, without lessening the presence of traditional skills, especially as core material” (p. 132). Moreover, Higher education institutions need to capitalize on collaborative agreements between countries to foster internal progress and share experiences. Iranian institutions may take advantage of the already signed agreements like the one between Lebanon and Iran. Hejase & Alaeddine (2017) confirm the fact that “collaboration between the Islamic Republic of Iran and Lebanon in the fields of higher education and scientific research is highly favorable irrespective of both the economic and political conditions in the region” (p. 35). Representatives from both countries’ HEIs show mutual assertiveness that their countries have mutual interests and agree on the modes of cooperation. “From the policy point of view, both countries have had active roles in bringing forward mutual projects and initiatives which have been approved by the governments” (ibid). Consequently, successful journalism educational experiences and best practices may be shared successfully.

Note: *This paper has been published jointly with Hussin Hejasi in Asian Business Research, 8(2), 2023.*

References

Aladdine R. (2022) ‘Journalism: As Seen in the Eyes of Current Journalism and Digital Media Students.’ *Žurnalistikos tyrimai*, 16, pp.108-137. DOI: 10.15388/ZT/JR.2022.4.

Alhojailan, M.I. (2012) 'Thematic Analysis: A Critical Review of its Process and Evaluation.' *West East Journal of Social Sciences*, 1(1), pp. 39-47.

Aliaksandrau, A. (2013) 'The gazette in crisis.' *Index on Censorship*, 42(1), pp. 34-38. DOI: 10.1177/0306422013478053. https://doi.org/10.1177/0306422013478053

Altbach, P.G. (1987) '*The knowledge context: Comparative perspective on the distribution of knowledge*.' Albany, NY: State. University of New York Press.

Bornstein, J. (2003) 'Journalism students and information competencies.' *Academic Exchange Quarterly. The Free Library*. (2014). Available at: https://www.thefreelibrary.com/Journalism+students+and+information+competencies.-a0111848849 (Accessed: 24 May 2023).

Dunn, H.A. (2018) '*History of Journalism Education: An Analysis of 100 Years of Journalism Education.*' LSU (Master's Thesis). ID. 4635. Mass Communication (MMC), Louisiana State University. Available at: https://digitalcommons.lsu.edu/gradschool_theses/4635 (Accessed: 24 October 2022)

El Takach, A., Nassour, F. and Hejase, H.J. (2022) 'Digital Transformation of Media Companies in Lebanon from Traditional to Multiplatform Production: An Assessment of Lebanese Journalists' Adaptation to the New Digital Era.' *Žurnalistikos Tyrimai*, 16, pp. 152–173. DOI: 10.15388/ZT/JR.2022.6 https://doi.org/10.15388/ZT/JR.2022.6D

Folkenflik, R. (2022, September 14) '*Samuel Johnson. Encyclopedia Britannica*.' https://www.britannica.com/biography/Samuel-Johnson (Accessed: 24 October 2022)

Folkerts, J., Hamilton, J.M. and Lemann, N. (2013) '*Educating Journalists: A Plea for the University Tradition*', Columbia, MO: Columbia Journalism School.

Gans, H.J. (2018) 'Sociology and Journalism: A Comparative Analysis.' *Contemporary Sociology*, 47(1), pp. 3-10. Available at: https://www.asanet.org/wp-content/uploads/attach/journals/jan18featuregans.pdf (Accessed: 25 May 2023)

Hardwick Research (2022) '*Determining Sample Size. Hardwick Research Re-sources.*' Available at: https://www.hardwickresearch.com/resourc-es/determining-sample-size/ (Accessed: 15 May 2023).

Hashem, M., Sfeir, E., Hejase, H.J. and Hejase, A.J. (2022) 'Effect of Online Training on Employee Engagement during the COVID-19 Era.' *Asian Business Research*, 7(5), pp. 10-40. https://doi.org/10.20849/abr.v7i5.1294

Hejase, A.J. and Hejase, H.J. (2013) '*Research methods: A practical approach for business students*.' (2nd ed.). Philadelphia, PA, USA: Masadir Inc.

Hejase, H.J. and Alaeddine, A.H. (2017) 'Fostering Academic Relations between Lebanon and the Islamic Republic of Iran.' *The Journal of Middle East and North Africa Sciences*, 3(7), pp.22-38. DOI:10.12816/0038021

Manpower Group (2023) *'2023 Global Talent Shortage.*' Available at: https://go.manpowergroup.com/talent-shortage (Accessed: 25 May 2023)

Materska, K. (2013) 'Is Information Literacy Enough for a Knowledge Worker?' *Communications in Computer and Information Science 397*, pp. 229-235 DOI: 10.1007/978-3-319-03919-0_29

Mazrooei, A., Sabahi, F. and Zanconato, A. (2019) '*Iran: Universities and schools.*' Available at: https://medialandscapes.org/country/iran/education/universities-schools (Accessed: 24 October 2022).

McKay, J. (2008) 'Defoe's The Storm as a model for contemporary reporting,' in Keeble, R. and Wheeler, S. (eds). *The Journalistic Imagination. Literary Journalists from Defoe to Capote to Carter*, (Chapter 1). Abingdon, UK, and New York: Routledge.

Merriam-Webster (2022) '*Professionalism*.' Available at: https://www.merriam-webster.com/dictionary/professionalism (Accessed: 20 April 2023)

Milbourne, L. (n.d.) 'Eighteenth-century journalists and periodicals.' *The Word Press*. Available at: https://sites.udel.edu/britlitwiki/eighteenth-century-journalists-and-periodicals/ (Accessed: 24 October 2022)

Mohsenianrad, M. (1994) 'Iranian Journalists and Journalism Training'. *Media Studies and Research Center, Imam Sadeq University [*Persian]. Available at: https://isu.ac.ir/cv/95/%D9%85%D9%87%D8%AF%D9%8A-%D9%85%D8%AD%D8%B3%D9%86%D9%8A%D8%A7%D9%86%E2%80%8C%D8%B1%D8%A7%D8%AF?slc_lang=fa&&cv=95&mod=scv (Accessed: May 11, 2023)

Motamed Nejad, K. and Monsefi, A. (1989) '*Journalism with a new approach in critical journalism.*' (3rd ed.). Tehran, Iran: Sepehr.

Namey, E., Guest, G., Thairu, L. and Johnson, L. (2008) 'Data Reduction Techniques for Large Qualitative Data Sets.' *In: Handbook for team-based qualitative research*. Rowman Altamira.

Parthasarathy, R. (1991) '*Journalism in India from the Earliest Times to the Present Day*.' Sterling Publishers Private Limited.

Rkein, H.I., Issa, Z.A., Awada, F.J. and Hejase, H.J. (2019) 'Impact of automation on the accounting profession and employability: A qualitative assessment from Lebanon.' *Saudi Journal of Business and Management Studies* 4(4), pp. 372-385.

Rkein, H., Issa, Z.A., Awada, F.J. and Hejase, H.J. (2020) 'Does automation of the accounting profession affect employability? exploratory research from Lebanon.' *Open Journal of Business and Management* 8(1), pp. 175-193.

Shahidi, H. (2007) '*Journalism in Iran: from Mission to Profession*,' London: Routledge.

Slauter, W. (2015) 'The Rise of the Newspaper'. Richard R. John and Jonathan Silberstein-Loeb (Eds). *Making News: The Political Economy of Journalism in Britain and America from the Glorious Revolution to the Internet*, 2015, 9780199676187. Hal-01379274f. Available at: https://hal.archives-ouvertes.fr/hal-01379274/document (Accessed: 19 October 2022).

Sommerland, E.L. (1966) '*The Press in Developing Countries.*' Australia: Sydney Press University.

Tejedor Calvo, S. and Cervi, L. (2017) 'Analysis of the journalism and communication degree programmes of the world's top-ranked universities. Competencies, objectives, and subjects.' *Revista Latina de Comunicación Social*, 72, pp.1,626-1,647. http://www.revistalatinacs.org/072paper/1238/88en.html

Zelizer, B. (2005) 'Definitions of Journalism,' in G. Overholser and K. H. Jamieson, (eds.), *Institutions of American Democracy: The Press* (pp. 66-80). New York: Oxford University Press.

Ziabari, K. (2018) 'Journalism in Iran: a big misunderstanding that will not be clarified.' Available at: https://medium.com/@kouroshziabari/journalism-in-iran-a-big-misunderstanding-that-will-not-be-clarified-f2150c35d3a2 (Accessed: 25 May 2023)

TWEETING TELEVISION BETWEEN INNOVATION AND NORMALIZATION: HOW LEBANESE TELEVISION AND AUDIENCES ARE MAKING USE OF TWITTER IN POLITICAL TALK SHOWS

[1]Chirinne Zebib
Email: chirine.zebib@net.usj.edu.lb

Abstract: Traditional media have progressively integrated newer media practices, with the constant emergence of new digital technologies, without abandoning their former ones. The adoption of Twitter by TV channels and by other social actors during political talk shows is a case in point. This article aims to assess whether the hybridization of TV talk shows and Twitter has innovated or normalized existing patterns of communication. In the former case, by enabling more interaction between different actors and space for audience deliberation, or in the latter case, by reproducing a traditional one-way communication and a centralized network of information that remains controlled and oriented by the elite (journalists and politicians). The incorporation of older and emergent media logic has an impact on the construction and distribution of political information as well as on the power relationships between journalists, politicians, and TV audiences. Besides allowing political talk shows to expand their flow of information, and to promote their news online, hybridized practices have not only altered the way citizens consume and engage with political information but also how they counter-frame traditional political media content by producing new ones. The research methodology consists of descriptive, content, and network analyses of tweets collected from three Lebanese local TV political talk show "Sarelwa2et" (MTV), "Btefro' aa Watan" (Al Jadeed), and "Vision 2030" (LBCI) between February and March 2022. Results revealed that TV talk shows are making use of Twitter as a top-down transmitter of information and resorting poorly to its interactive potential. Some newer media practices of Twitter, such as @mention and replies are being applied but only to interact with politicians and journalists, failing to engage with a larger array of voices and thus, leading to an elite-centric discourse within the network. Also, tweets are mostly used to inform audiences and promote TV programs. In addition, network analyses of talk shows via hashtags demonstrated the central and not monopolized role of politicians and journalists as influencers, bridges, and quick spreaders of information. Finally, content analysis of dual screeners' tweets (n=6000) indicated very little space in a Habermasian public sphere. The total of subjective opinions, irony, and attack/insult tweets are still higher than the total of the introduction of new issues and counter-frames tweets.

Keywords: New media, personalization, individualism, genericism, social construction

INTRODUCTION

The emergence of the internet and the rapid proliferation of social media platforms have pushed traditional media towards integrating new practices without abandoning their old ones. That has created a challenging environment for journalists (Lasorsa, Lewis, & Holton, 2012). The juxtaposition of older and newer media logic leads to a hybrid media system that fundamentally disrupts both journalistic practices and news construction (Chadwick, 2017). With an ongoing decline in mass media audience (Walters, 2021) and a constant rise in social media popularity in parallel, digital platforms

*1 1Instructor at Faculty of Mass Communication & Fine Arts, Al Mareef University. PhD student at Saint-Joseph University, Lebanon.

are incarnating a primary place for traditional media to expose their work (Canter, 2015; Belair-Gagnon, 2015), producing, distributing, promoting information, and engaging with audiences. That turns one's attention to Twitter, which is regarded as having considerable journalistic dynamics (Dagoula, 2019) and viewed as "an ambient news environment, an arena that always contains news" (Ibid, p. 228). Moreover, the platform with its tools is one of the most used by traditional media (Canter & Brookes, 2016; Djerf-Pierre, Ghersetti, & Hedman, 2016):

> "As with the Internet itself, Twitter has been heralded to hold interesting possibilities within the context of journalism—potentially bringing journalists and their respective audiences closer to each other through supposedly common Twitter practices like @ messages and retweeting" (Larsson, 2013, p.135).

Television channels are a good illustration of traditional media incorporating new media methods to their programs to retain the viewers' attention (De Michele, Ferretti, & Furini, 2019) and to promote their episodes online (Molyneux & Mourao, 2017). To guarantee the expansion of their content online and to control the flow of information about episode topics on Twitter, TV programs use official hashtags that usually carry the names of their shows. That hybrid strategy linking diverse content across several media has led to a dual or second screening phenomenon (De Michele, Ferretti, & Furini, 2019); that is, watching TV (first screen) while using a second screen (smartphone, laptop, tablet) to discuss the broadcast content online. The basic definition of this is "a process in which individuals watching television use an additional electronic device or "screen" to access the internet or social networking sites to obtain more information about the program or event they are watching or to discuss it in real-time" (Gil de Zúñiga, García-Perdomo, & McGregor, 2015, p. 5). Dual screening has significantly impacted how citizens consume information and debate public policies (Gil de Zúñiga & Liu, 2017). It can increase citizen engagement and participation in political issues, especially ones expressed by TV political talk shows, and generate online discussions with others by interacting with journalists and political officials through Twitter tools (Bennett, 2012; Howard & Parks, 2012; Stieglitz & Dang-Xuan, 2013). In that regard, citizens commenting on a political TV program can shape the opinions of other users (Boukes & Trilling, 2017) but most importantly, they can influence the content of the TV show and counter-frame it:

> "Moreover, the observed hybrid media spaces enable connected audiences to intervene, via Twitter, 'in' the production of the content discussed by political talk shows, introducing different angles (problems, causes, and solutions) about the issues proposed by television, and also suggesting alternative information sources (e.g., online journals, blogs, and Facebook Notes) to challenge or strengthen the arguments used by TV hosts and guests" (Iannelli & Giglietto, 2015, p.1009).

The use of Twitter by both TV channels/journalists and TV audiences could create a public sphere where arguments are debated and information is shared (Dahlgren, 2005). However, this assumption relies on the way both actors are employing Twitter affordances and for what purposes.

The study aims to explore the ways journalists and TV audiences are making use of Twitter during a political TV talk show. The main question is whether the hybridization of the two has innovated or normalized existing patterns of communication; in the

former case, by enabling more interaction between different actors and spaces for audience deliberation, or in the latter case, by reproducing a traditional one-way communication and a centralized network of information that remains controlled and oriented by the elite (journalists and politicians). Functions attributed to Twitter by TV channels and audiences are essential variables to answer this study's research question. The study will focus on three Lebanese local TV political talk shows "Sarelwa2et" (MTV), "Btefro' aa Watan" (Al Jadeed), and Vision 2030 (LBCI) between February 10 and March 31, 2022. The research question is examined by using the theoretical frameworks of innovation versus normalization and the Habermasian public sphere.

LITERATURE REVIEW

According to Chadwick (2017), traditional media are integrating new media logic as much as new media are incorporating conventional logic. Therefore, new technologies do not eradicate older media practices but they have led to a hybrid media system: "it reveals how older and newer media logics in the fields of media and politics blend, overlap, intermesh and co-evolve" (Chadwick, 2017, p. 5). The author defines media logic as "technologies, genres, norms, behaviors, and organizational forms" (Ibid, 2017, p. 4). Using Twitter and its practices by TV political talk shows is one example of this media hybridization. Also, this interweaving of different media logics is shaping the power relations among the different actors that produce political information, thus influencing the meanings and flows of political content (Ibid, 2017). The hybridity of media has resulted in the emergence of a greater variety of actors and interactions involved in the construction of political information that was not possible before. Today, citizens and new political actors on social media have the opportunity to reduce the power of traditional media gatekeepers and the capacity to "introduce, amplify, and sustain topics, frames, and actors that come to dominate political discourse" (Jungherr, Posegga, & An, 2019, p. 420). Political content produced during TV talk shows by different actors (mainly journalists, TV hosts, and political figures) and posted simultaneously on Twitter goes under various interpretations and framings by online audiences (mostly citizens, politicians, and activists) to reinforce or challenge the information. As a result, studies have demonstrated the presence of tension between these different players as they aspired for attention and control over the new media spaces (Lewis, 2012; Tandoc & Vos, 2016). Journalists, politicians, citizens, activists, and sometimes TV audiences "create, tap, or steer information flows in ways that suit their goals and in ways that modify, enable, or disable the agency of others, across and between a range of older and newer media settings" (Chadwick, 2017, p.181).

Several studies have examined the way actors in political communication are exploiting social media by using the innovation versus normalization approaches (Bimber & Davis, 2003; Klinger & Svensson, 2015; Margolis & Resnick, 2000). The same theoretical framework can be applied to comprehend how journalists and TV channels are using digital platforms. The innovative approach claims that journalists would fully apply new media practices and interactive tools of social media, hence adopting a two-way communication that enables interaction between them and an audience that could participate actively in the news-making (Singer, 2014; Chadwick, 2017). In this sense, traditional media would no longer limit their discussions to a

certain elite (journalists and politicians), and they would allow more inclusion and participation of the public. Conversely, normalization theory suggests that journalists have integrated new platforms and some new media practices, but that they still hold traditional habits and consider social media simply as “business as usual” (Molyneux et al., 2016). New media platforms are regarded as an extension of conventional media practices used by journalists to maintain control over information (Singer, 2005), and consequently, as reproducing the same power relations among actors offline and online, the elite unaffected (Dagoula, 2019). The normalization theory suggests that journalists favor traditional one-way communication online; if interaction with the public was to happen, it remained limited and controlled (Stromer-Galley, 2014). Several studies on Twitter have shown that political journalists mainly interact with each other, maintaining professional boundaries (Mourão, 2015) as they consider the platform as a news wire to look for sources and provide updates (Lawrence et al., 2014; Molyneux & Mourão, 2017). In a recent study, Fincham (2019) found that political journalists are reproducing their offline insular communities on Twitter, "the study provides evidence of sustained homophily as journalists continue to normalize Twitter" (Ibid, p. 213). Other researchers revealed that most of the time, journalists use Twitter to reiterate statements made by officials and candidates (Coddington, Molyneux, & Lawrence, 2014) and that they adopt humor and self-promotion considerably in their Tweets (Holton and Lewis, 2011; Molyneux, 2015; Mourão, Diehl, and Vasudevan, 2016). Furthermore, journalists use tweets and retweets to promote themselves, the content of their organization, or their guests more so than newer media practices such as replies and quote tweets (Molyneux & Mourão, 2017; De Michele, Ferretti, & Furini, 2019). In one of the few studies about the usage of Twitter by Lebanese television, Kozman & Cozma (2021) found that TV channels are primarily using the platform to distribute and promote their information in one-way communication via original tweets, limiting any type of interaction with the audience.

Finally, the public sphere concept has been examined and revisited by many studies to analyze the impact of social media on journalism (Bruns et al., 2016). Digital platforms, mainly Twitter, have been studied as a new form of the Habermasian public sphere (Hermida et al., 2012) that is defined as a space equally allowing any individual to discuss, exchange, and debate rationally in public affairs. Theoretically, the structure of Twitter is an open and flexible one that allows a horizontal communication process between different users of various societal positions, allowing them to deliberate on political issues. “Twitter has presented itself as an open social networking space that enables Internet users to track breaking news on any occasion, with profiles that can be public and unlocked and accessible to anyone, registered or non-registered.” (Dagoula, 2019, p. 228). By adopting and revisiting the Habermasian public sphere (Athique, 2013; Dahlgren, 2005; Ceron & Splendore, 2019, Chadwick, 2017) without accepting its utopian principle of equality among actors (Bruns & Highfield, 2016; Fraser, 1990), authors have either accepted or rejected considering social media as a public sphere. The latter have questioned the quality of discussions online (Hindman, 2009) and the dangers of homophily and polarization created by social media, contradicting the Habermasian public sphere (Ceron, 2017; Pariser, 2012). In addition, they suggest that a certain hierarchy of interactions persists despite the flexible structure of Twitter (Dagoula, 2019).

Those assumptions bring the researchers back to their general research question mentioned above and its sub-questions:

RQ1 How are Lebanese TV stations using Twitter before and during political talk shows?

RQ2 With whom are TV channels interacting during the political shows broadcasting?

RQ3 Which actors are guiding and controlling information flows of TV show networks created on Twitter?

RQ4 How are Lebanese dual screeners use Twitter during TV political talk shows?

METHODOLOGY

The methodology is based on descriptive, content, and network analyses of Tweets made by TV channels (N= 608) and TV audiences (N= 6000) between February 10 and March 31, 2022. Content analysis is a "research technique for the objective, systematic, and quantitative description of the manifest content of communication" (Berelson, 1952, p.18). The method quantifies content into predetermined categories, such as subjects or themes (Bryman et al., 2021). We have adopted two analysis grids with pre-constructed categories. This choice is based on several studies carried out to analyze social media publications of TV channels and their audiences (Kozman & Cozmo, 2021; Molyneux & Mourão, 2017; Iannelli & Giglietto, 2015; Greer & Ferguson, 2011). For the first content analysis, the unit is each tweet of four episodes of three popular TV political talk shows in Lebanon: "Sarelwa2et" (MTV), "Btefro' aa Watan" (Al Jadeed), and Vision 2030 (LBCI). For the second one, the unit of analysis is tweets published by the audience during the broadcasting of the three shows. 2000 audience tweets were selected randomly from each program (a total of 6000 Tweets) by using the official hashtag [in Arabic] of each TV program (#بتفرق_ع_وطن, and #صار_الوقت,#٣٠_عشرين).

The Twitonomy software was used to collect the data for the three shows. That first data gathering allowed access to all tweets, retweets, mentions, replies, and hashtags published during four episodes of each show. While data on TV audiences were collected by the software Excel add-on NodeXL Pro via its Twitter Search Network importer by entering the official hashtag for each show. The software allowed us to extract tweets, relationships, and user information to calculate key social network metrics. On NodeXL Pro, Twitter API limits the amount of imported content to about 18,000 users per data set. Four data draws (4 episodes) from each TV program were done. Data gathering took place following the next day of each episode's broadcasting between the selected times. In addition to the analysis of content produced on Twitter, the research will apply network analysis of one episode for each of the three political shows.

Network analysis is considered a complementary method to content analysis on Twitter (Giglietto & Selva, 2014). Instead of focusing on individuals and their attributes, it focuses on the relationships and interactions between people. Hansen et al. (2020) posit that "The network perspective looks at a collection of ties among a population and creates measurements that describe the location of each person or entity within the structure of all relationships in the network" (p. 32). The position of a person or node relative to all others is a primary interest of social network analysis. The structure

of Twitter conversations (mentions, replies, and retweets) makes it quite easy to use this analysis (Highfield, Harrington, & Bruns, 2013; Larsson, 2013) via the software NodeXL Pro to calculate and visualize important metrics that characterize networks. The centrality measures of network analysis will identify the presence or absence of elites (media and political actors) in Twitter discussions of political shows.

Network analysis is considered a complementary method to content analysis on Twitter (Giglietto & Selva, 2014). Instead of focusing on individuals and their attributes, it focuses on the relationships and interactions between people. Hansen et al. (2020) posit that "The network perspective looks at a collection of ties among a population and creates measurements that describe the location of each person or entity within the structure of all relationships in the network" (p. 32). The position of a person or node relative to all others is a primary interest of social network analysis. The structure of Twitter conversations (mentions, replies, and retweets) makes it quite easy to use this analysis (Highfield, Harrington, & Bruns, 2013; Larsson, 2013) via the software NodeXL Pro to calculate and visualize important metrics that characterize networks. The centrality measures of network analysis will identify the presence or absence of elites (media and political actors) in Twitter discussions of political shows. The data collected through the tool mentioned above were grouped into Excel and CSV.

The first sub-question of the study was answered by considering the variables coded as the functions attributed to tweets. The uses include three mutually exclusive categories: Information, interaction, and promotion. Table 1 shows the analysis scheme used in this research for the posts' content. It includes the categories and characteristics that guide the classification of the content of tweets published by the three political TV talk shows.

Table 1: ***Analysis scheme for the content of TV Tweets***

Category	Characteristics
Information	● A tweet about statements or news made by guests during the show. ● A tweet about a statement or news made by the host of the show. ● A tweet with embedded videos/photos or links about discussions, debates, and disputes happening during the show.
Interaction	● A tweet asking a question to the audience before and during the show. ● A tweet with an opinion poll before and during the show. ● Replies to user's questions.
Promotion	● A tweet announcing topics of the show via a video (teaser) or by text to ● attract an audience. ● A tweet reminding of the date, and time of the broadcast. ● A tweet promoting guests of the show. ● A tweet promoting a TV host

A quantitative descriptive analysis of tweets, retweets, mentions, and hashtags made by the three TV channels will be exposed as well to demonstrate what Twitter tools are most used by political shows and with whom they are interacting on Twitter. According

to Hejase and Hejase (2013), "descriptive statistics deals with describing a collection of data by condensing the amounts of data into simple representative numerical quantities or plots that can provide a better understanding of the collected data" (p. 272). Therefore, data frequencies and percentages were depicted in tables and figures for clarity. In addition, the descriptive analysis adds value to the discussion of results. For instance, a high usage of tweets and retweets and a low usage of interactive tools such as mentions and replies would mean that TV channels are not fully integrating the interactive affordances of the platform (Molyneux & Mourão, 2017). In that case, traditional media are normalizing Twitter in a broadcasting top-down logic and limiting innovative media logic (the social media's conversational bottom-up logic) (Bosner & Nagel, 2020). These analyses will provide answers to the first two sub-questions.

The third sub-question will be answered by analyzing the networks of conversations and relations of one episode for each political talk show on Twitter by using quantitative network centrality measures. Each measure will be coded as a user category in the network since they can be used as indicators of influence, popularity, influence, and gatekeeper/bridge (Hansen et al., 2020; Scott & Carrington, 2011). Table 2 summarizes the main centrality measures chosen and their user categories.

Table: 2: ***Measures centrality for network analysis***

Measure centrality	User category
In-degree: Incoming relations/links Twitter users that are mentioned, retweeted, or replied to	High in degree: Popular / influencer / conversational hub
Out-degree: Outcoming links/ number of tweets sent out by a particular user	High out-degree: Active tweeter / aims to reach user's attention / high level of engagement
Betweenness: measures the number of times a Twitter user lies on the shortest bridge/gatekeeper path between other users	High betweenness: Bridge/gatekeeper
Closeness: Measures the distance of a node (Twitter user) to all others in the network	High closeness: User that can reach other users very quickly / closest to all in the network

Finally, to answer the last sub-question of the research, the variables coded were the functions attributed to TV audiences' tweets. They include eight categories that are not mutually exclusive: Information/streaming/report, opinion/comment, request for interaction, the introduction of new issues/angles/sources/analysis, attack/insult, jokes/irony, emotion, and others. This content analysis will allow us to determine the quality of discussions and debates among TV audiences on Twitter. As mentioned

before, the quality of the dialogue is an important criterion for the development of a public sphere online.

Table 3 shows the analysis scheme used for the Tweets content made by TV audiences. It includes the categories and characteristics that guide the classification of the content of tweets.

Table 3: ***Analysis scheme for the content of tweets made by TV audiences***

Category	Characteristics
Information/streaming/report	• Tweets containing statements or sentences pronounced by political guests or TV hosts or other guests
Opinion/comment	• Tweets expressing an opinion about the content of the show, the guests, or the TV host
Request for interaction	• Tweets asking questions to guests or host
Introduction of new issues/ angles/sources/analysis	• Tweets discussing new topics or information that was ignored by the talk show; personal analysis about topics discussed on TV, counter-frames • Tweets introducing different information sources to challenge or reinforce the ongoing TV discussion via links to past information (article, video, or photo) that show the contradictory statements of politicians
Attack/insult	• Tweets with vulgar or violent language, threats, or provocations
Jokes/irony	• Tweets containing funny comments, sarcasm, and jokes
Emotion	• Tweets expressing love, hate, or sadness, using multiple exclamation marks or emoticons
Other	• Tweets that cannot be classified into any of the above categories

FINDINGS

Table 4 demonstrates that the three TV talk shows are primarily using Twitter to broadcast information to users. TV programs “Sarelwa2et” (88%) and “Btefro’ aa watan” (87.45%) have approximately the same results, while “Vision 2030” is slightly behind with 61.7%. The three programs have therefore normalized the use of Twitter in a broadcasting top-down logic, favoring a unidirectional way of communication as they are used to on television. Moreover, the reiteration through tweets of statements

pronounced by guests or hosts during TV shows is adopted by broadcasters to expand information to a wider audience and maintain control over the flow of information. A second observation made in the same table is that “Vision2030” and “Sarelwa2et” have a higher usage of Twitter to promote their episodes, guests, and even sometimes their hosts. Promotion or self-promotion tweets are usually accompanied by a hashtag aimed at attracting and increasing public attention before or during the talk show (De Michele, Ferretti, & Furini, 2019). Promotional tweets can similarly have videos that look like teasers to increase interest in the audience about the episode’s topics (Greer & Ferguson, 2011).

Table 4: ***Number of tweets published by the three TV programs by categories***

Category	@sarelwa2et	%	@Vision 2030 LBCI	%	@ALJADEEDNEWS (بتفرق_ع_وطن)	%
Information	299	88	92	61.7	104	87.4
Interaction	19	5.6	15	10.1	11	9.2
Promotion	22	6.4	42	28.2	4	3.4
Total number of tweets	**340**	**100**	**149**	**100**	**119**	**100**

All three programs have a very low percentage of interactive tweets; the highest percentage for four episodes of Vision 2030 is 10.1%, and the lowest is for the talk show "Btefro’ aa watan” (3.4%). TV channels are reducing their interactions with users to a few questions and opinion polls asked before or during the show. Interaction here is regarded more as a means to gauge public opinion about a certain topic rather than conversing with the public (Marchetti & Ceccobelli, 2013). For instance, most of the interactive tweets of “Vision 2030” (12 out of 15) are opinion polls posted to users.

Figure 1. ***Example of a controlled interactive tweet by the TV program Vision 2030***

Questions or opinion polls seem to engage more TV audiences, but the interaction with the public remains limited or even quasi-absent. In fine, talk shows are using Twitter to distribute and promote information that is already produced for television and rarely interact online with their audiences. They are dealing with the platform as a traditional media tool that enables wider reach, treating it as a means for top-down communication (Kozman & Cozma, 2021).

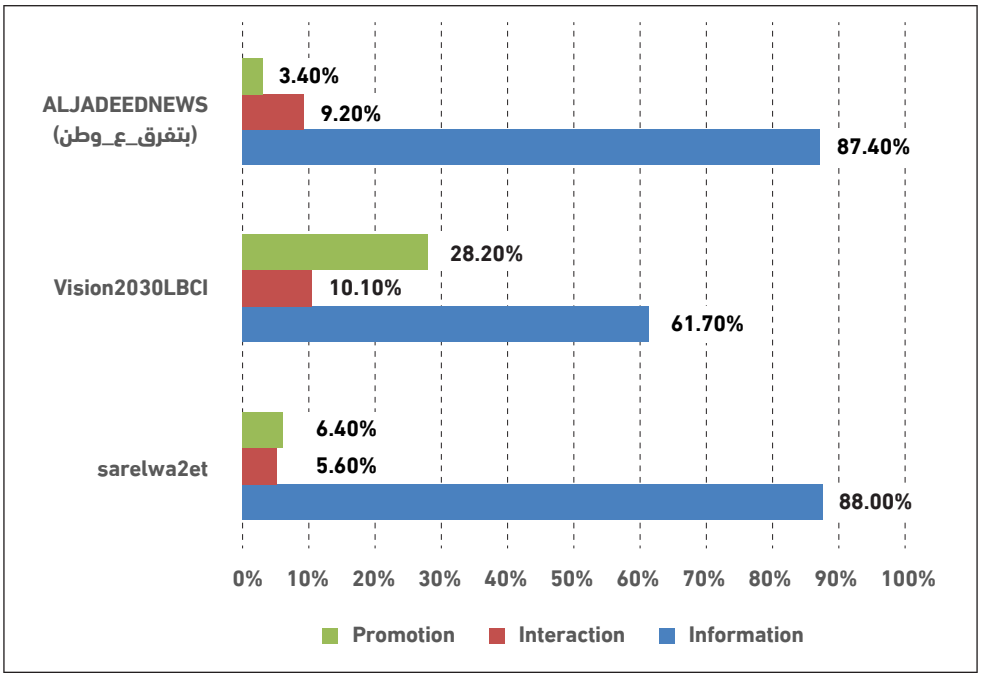

Figure 2. ***Percentage of the total number of tweets by categories for each TV political talk show***

The first analysis focuses more on determining if the content of Tweets has an interactive purpose rather than if Twitter's interactive tools have been used or not by TV accounts. To do that, a descriptive analysis of different types of tweets and interactive affordances of Twitter will be carried out to examine; whether TV channels are using the new media logic of Twitter and with whom they are talking on the network.

Table 5: ***Analytics of the tweets published by TV programs***

Twitter accounts (@)	@sarelwa2et	@Vision 2030 LBCI	@ALJADEEDNEWS (بتفرق_ع_وطن)
Original tweets	312	122	119
Retweets	22	26	0

Twitter accounts (@)	@sarelwa2et	@Vision 2030 LBCI	@ALJADEEDNEWS (بتفرق_ع_وطن)
Replies	6	1	0
Total of Tweets for the four episodes	340	149	119
Mentions	41	303	160
Links	11	15	17
Hashtags	539	122	215
Visuals from the TV show (videos/photos)	290	50	45

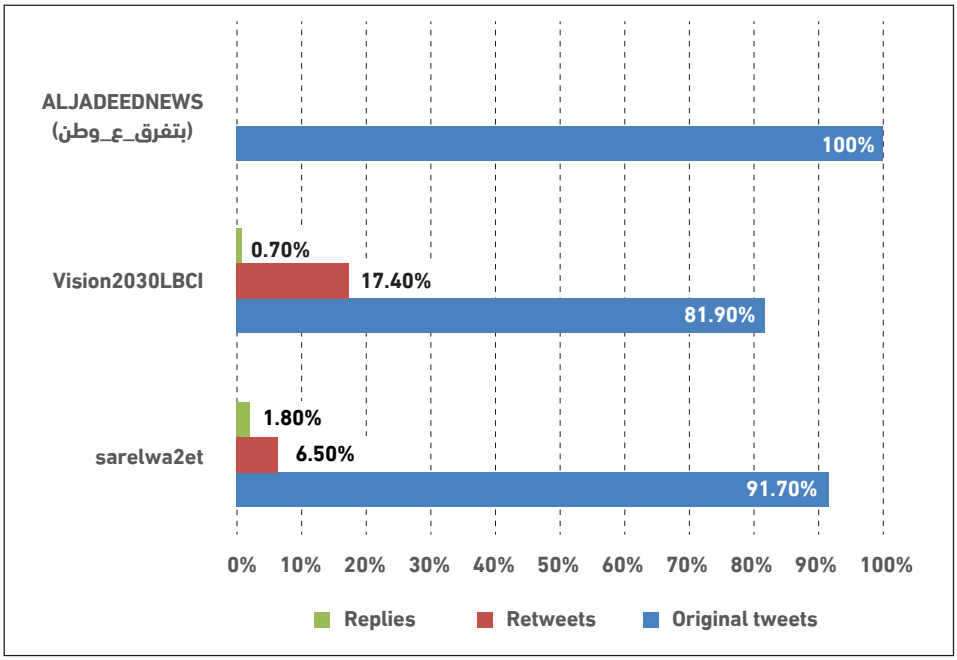

Figure 3. ***Types of tweets published by TV show Twitter accounts***

Figure 3 shows that original tweets accounted for 100%, 91.7%, and 82% of all tweets published by "Btefro' aa watan," "Sarelwa2et," and "Vision 2030," respectively. For traditional media, normal tweets look more like the one-way interaction that journalists are familiarized with using tweets just to broadcast their message to their followers or share it with a wider audience. Consequently, the three talk shows have made no or little use of retweets and replies. With 17.4%, "Vision 2030" has retweeted more than "Sarelwa2et" (6.5%) and "Btefro' aa watan" which did not retweet at all. Retweets, being

the rebroadcasting of messages originally published by others, are significant tools to diffuse information to a wider audience but most importantly, it could be an indicator of audience participation in news making: “Retweeting is an indication of a journalist’s ‘‘opening the gates’’ to allow others to participate in the news production process” (Lasorsa, Lewis, & Holton, 2012, p. 26). Results might insinuate that “Vision 2030” and “Sarelwa2et” have slightly started to “open the gates”, however, if we look deeper into the profiles of the persons they retweeted, we can conclude that it is not yet the case. Table 6 shows that the totality of retweets made by “Vision 2030” are from their TV channel (LBCI), and retweets of "Sarelwa2et" are as well from their own media organization (MTV) and one politician.

Table 6: ***Accounts most mentioned, retweeted, and replied to, as well as hashtags most included in tweets***

	sarelwa2et	Type of actor	Vision 2030LBCI	Type of actor	ALJADEEDNEWS (بتفرق_ع_وطن)	Type of actor
User most mentioned	@IbrahimKanaan	*Politician*	@LBCILebanon	*Media Organization*	@Samarbukhalil	*Journalist*
	@ghassanhajjar	*Journalist*	@AbdallahBouhabi	*Journalist*	@FaresSouaid	*Politician*
	@Paulastih	*Journalist*	@Allouchmustafa1	*Politician*	@Ali_YHijazi	*Politician*
	@FaresSouaid	*Politician*	@halime_el	*Politician*	@charlesjabbour	*Journalist*
	@CesarAbiKhalil	*Politician*	@waddahsadek	*Journalist*	@GhassanJawad1	*Journalist*
	@mauricematta	*Journalist*	@AlbertKostanian	*Journalist*	@MayKhreich	*Politician*
	@JeanNakhoul	*Election analyst*	@michealmoawad	*Politician*	@allouchmustafa1	*Politician*
	@philabouzeid	*Reporter*	@El_Rass	*Artist*	@Naji_Hayek	*Politician*
User most retweeted	@MTVLebanonNews	*Media Organization*	@LBCILebanon	*Media Organization*	None	
	@FaresSouaid	*Politician*				
User most replied	@sarlwa2et	*Media Organization*	@DittaComair	*Unknown*	None	
Hashtags most used	#صار_الوقت		#٣٠_عشرين		#بتفرق_ع_وطن	
	#مرسال_غانم				#حزب_الله	
	#جورج_غانم		#lbci		#لبنان	
	#سيمون_ابي_رميا				#سعد_الحريري	
	#ابراهيم_كنعان				#ابراهيم_الأمين	

In addition, the percentage of replies over the total number of tweets is almost inexistent (1.8% and 0.7% for “Sarelwa2et” and Vision 2030”, respectively) or even null

("Btefro' aa watan"). Most of the replies were to tweets published by the TV programs themselves, and only one reply by "Vision 2030" was addressed to an unknown account. Usually, talk shows will reply to their tweets to circumvent Twitter's 140-character limitation and write longer comments (Molyneux & Mourão, 2017). In addition, mentions by journalists are regarded as interactive and innovative tools since TV channels can mention users to engage in a conversation. Nevertheless, Table 6 reveals that the majority of the people mentioned in the three programs are either politicians, journalists, or media organizations. Thus, the result implies that talk shows are only engaging in conversations with specific actors mentioned above, creating a form of intra-elite conversation on Twitter (Dagoula, 2019). Moreover, when TV channels mention their institutions and journalists, the tool becomes an indicator of self-promotion. The usage of links included in tweets was low for all programs, and most of the time, they were referring to content from their news institution. In this way, TV programs via their links can aim at orienting and directing what users should read. Finally, talk shows have included at least one hashtag in each of their tweet (1.6, 1.2, and 1.8 hashtags per tweet posted by "Sarelwa2et," "Vision 2030," and "Btefro' aa watan," respectively). The use of official hashtags by the shows enables TV channels to organize online conversations around the main topics exposed on their TV shows and to increase their visibility and popularity. In this regard, the use of hashtags can be an indicator of both promotion (De Michele, Ferretti, & Furini, 2019) and information flow control (Gainous & Wagner, 2014).

In summary, the research's results revealed how and for what purposes TV talk shows are using Twitter and with whom they interact. The network analysis for one episode of each talk show (in total three networks) will determine structurally important nodes (users) in the network. The network for each show is all relationships and interactions among people that have included the official hashtag of the TV program in their tweets. Centrality measurements will allow us to identify central actors in the network. A high centrality signifies central locations and dominance within the networks.

Table 7: ***Top 15 users rank by in-degree and out-degree centrality***

Top 15 users rank by in-degree		
#صار_الوقت	#عشرين_30	#بتفرق_ع_وطن
sarelwa2et	vision2030lbci	samarabukhalil
simonabiramia	lbcilebanon	aljadeednews
jossyhannakh	michelmoawad	alhajjar11111
mtvlebanonnews	albertkostanian	1alirabah
faressouaid	halime_el	faressouaid
batoulkhalil6	lnalebanon	zainab_elzein
jad_ghosn	assaadmoawad	aliaarmdn
tayyar_org	el_rass	hp4hadair
tonyabinajem	ziaditanioff	dina24680
manueldergham	richard_mouawad	aliyousefatwe
sabaaofficial7	harethsleiman	hasn_af
jeantannous	micheltmawad	shaalantfaily
nourgebara85	93_moura	layalamohamadslim
laraelhachem	mukawems	mohammadgharawy
sammygemayel	lbci_news	raniajbr2

Top 15 users rank by out-degree		
#صار_الوقت	#عشرين_30	#بتفرق_ع_وطن
omarijuliette	richard_mouawad	rammal_zainab
aymanom81822143	nemer61856076	2mhmdkh1311
julietteomar1	mouraronald93	k5wolsffzv0t5vi
doueihy_sylvana	abourene93	nadohamdan
zahracharbel	makhasakminn	rokayaahmad6
namnoumchahid	72ou2tawa2ef	twy_zhra
sabaa94346401	bourakelle	wd2rrdtp3rw16u2
naghamyehya7	anthonymbarak3	aliali33913481
mohamad_ali_moh	eidmtayleb	rima323i
daniashehabedd1	vision2030lbci	saber_mortad21
dod_soltah	fleiharamona	noha8521
asoltah_sakatat	93_moura	jalmouswi_313
juiletteomar2	tonidahdah93	abosabra11
r_abou_ghaida	lbcilebanon	antounah
anwarjabr4	zgharta_ehden0	mhmdali_s

The highest in-degrees for the three programs are either media organizations (AlJadeednews, LBCI, and MTV Lebanon news), journalists (Samar Abou Khalil, Albert Kostanian, Jad Ghosn, and Tony Abi Najem), politicians (Simon Abi Ramia, Michel Moawad, Fares Souaid, and Halima Kaakour) or the programs themselves ("Sarelwa2et" and "Vision 2030"). 'High in degree' in this case, means that users are very popular in the network and have been referenced mostly by other users via mentions, replies, and retweets. However, the network is not dominated by the popularity of the elite; some political activists or normal social media users have high in-degrees as well (Jossy Hannakh, Batoul Khalil, Assaad Moawad, and Zainab El Zein). Nodes with the highest out-degrees in the three networks are normal active users that have tweeted many times during the talk shows to get the attention of either guests, hosts, or programs themselves via mentions, replies, and retweets. However, some accounts can be suspected to be trolls as they do not exist anymore, have fake profile pictures, carry username accounts with random combinations of letters and numbers, or have more than one account on Twitter.

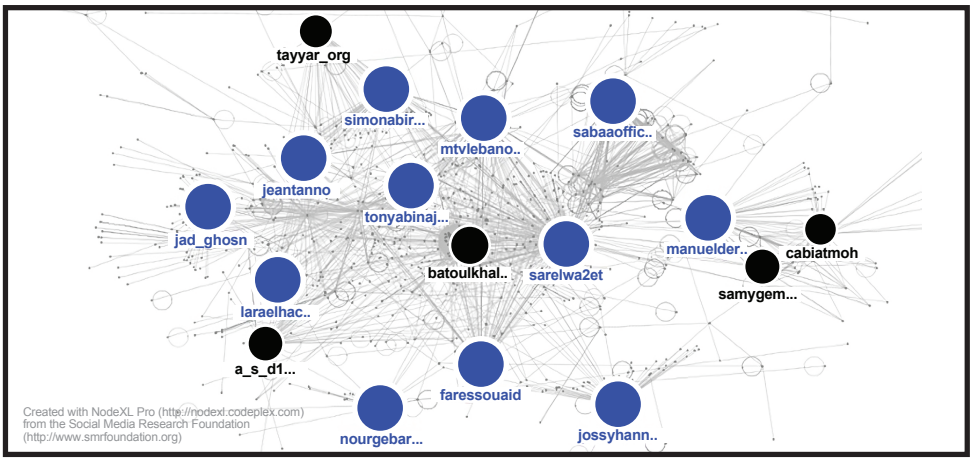

Figure 4. ***Visualization of the highest in-degree nodes in the network "Sarelwa2et"***

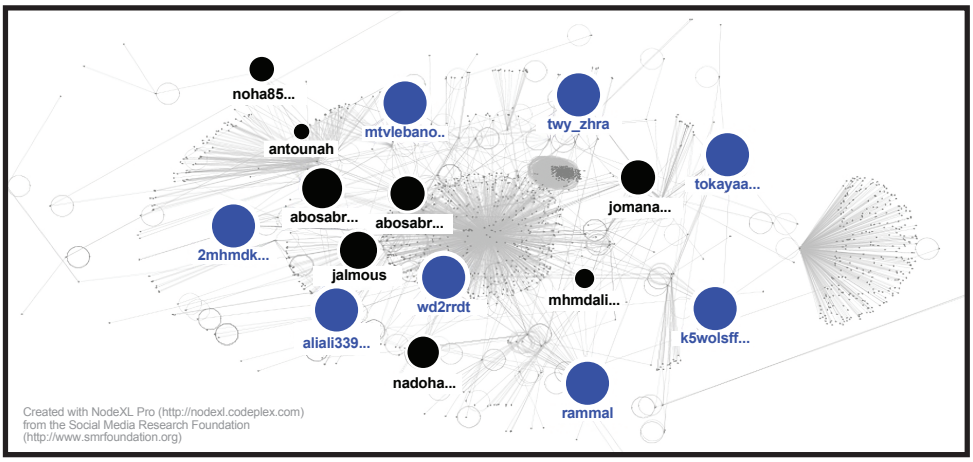

Figure 5. ***Visualization of the highest out-degree nodes in the network "Btefro' aa watan"***

Table 8: ***Top 15 users rank by betweenness and closeness centrality***

Betweenness Centrality		
#صار_الوقت	#عشرين_30	#بتفرق_ع_وطن
sarelwa2et	vision2030lbci	samarabukhalil
simonabiramia	michelmoawad	alhajjar11111
julietteomar1	lbcilebanon	aljadeednews
jossyhannakh	albertkostanian	k5wolsffzv0t5vi
manueldergham	richard_mouawad	rokayaahmad6
omarjuliette	halime-el	hasanjawadd
aymanom81822143	bourakelle	samibarakat8
jad_ghosn	nemer61856075	lrafikdoumit
nourgebara85	lnalebanon	zainab_elzein
mtvlebanonnews	antoniosehedid	1alirabah
k5wolsffzv0t5vi	ziaditanioff	kassem_ammar13
bellahobeika	samirzallouaa	twy_zhra
tonyabinajem	nadinemajzoub	rammal_zainab
faressouaid	tonidahdah93	2mhmdkh1311
rjoumblatt	mouraronald93	hp4hadair

Closeness Centrality		
#صار_الوقت	#عشرين_30	#بتفرق_ع_وطن
sarelwa2et	vision2030lbci	samaraabukhalil
mtvlebanonnews	lbcilebanon	aljadeednews
simonabiramia	michelmoawad	hasanjawadd
julietteomar1	albertkostanian	samibarakat8
omarjuliette	richard_mouawad	lrafikdoumit
aymanom81822143	nemer61856075	rammal_zainab
faressouaid	mouraronald93	mhmdali_s
k5wolsffzv0t5vi	assaadmoawad	ali_ridaa1
tonyabinajem	abourene93	jomanaalsayed
laraelhachem	93_moura	wd2rrdtp3rw16u2
wared58659334	bourakelle	zainab_elzein
sabaaofficial7	samirzallouaa	gk_kds
mmmmbd	tonidahdah93	william_nemr
imanghannam	anthonymbarak3	zahraadeeb19
pikhka	72ou2tawa2ef	jakosf1234

Media institutions (LBCI, AlJadeednews), TV program accounts (salrelwa2et, vision2030lbci), politicians (Simon Abi Ramia, Michel Moawad, and Halima Kaakour), and journalists (Albert Kostanian, Jad Ghosn, and Samar Abu Khalil) have one of the highest betweenness centrality in the networks. These are essential actors in controlling and maintaining the information flow and conversations in the network. They can also be considered bridges since they can diffuse information from one subgroup to another, thus playing a connecting role between non-connected clusters within the network. Elite actors are not the only gatekeepers in the three networks; active users on social media (Rislan El Hajjar, Juliette Omar, Jossy Hannakh, and Hassan Jawad) also play a central role in directing the information flow. However, many of the accounts with high betweenness centrality (except journalists, politicians, and media organizations) are suspected to be trolls for the same reasons mentioned above, especially in the network of "Btefro' aa watan".

Finally, in terms of closeness centrality, the leading users are media organizations (MTV Lebanon news, LBCI, and Al Jadeed news), journalists (Samar Abu Khalil and Albert Kostanian), and politicians (Simon Abi Ramia and Michel Moawad). Actors with high closeness centrality receive information more quickly and can reach others in the network rapidly since they are the closest to every user. In addition, the closeness centrality of some active users on the network comes right after certain journalists and politicians mentioned before. However, once again, and especially for the talk show "Btefro' aa watan" some of the accounts with high closeness centrality are suspected to be trolls. Ultimately, the network analysis revealed that offline media and political elite have a central role but not a dominant one in the networks of the three shows. Politicians and journalists remain the first and main hubs of conversations, the bridges, and the gatekeepers of information in the network. However, they are directly followed by active normal citizens that have made an important place for them in the network, even though some of them are suspected of being troll accounts.

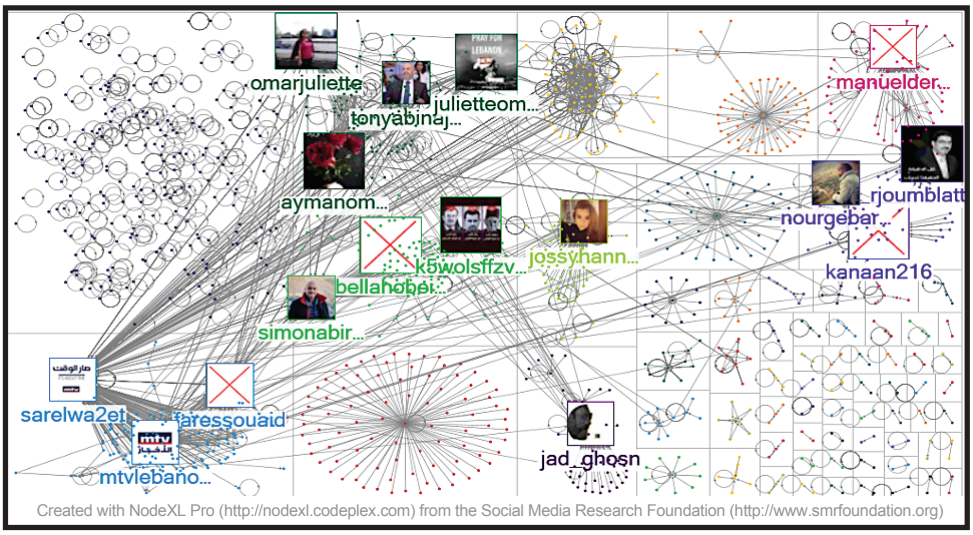

Figure 6. ***Visualization of the highest betweenness centrality nodes in the "Sarelwa2et" network***

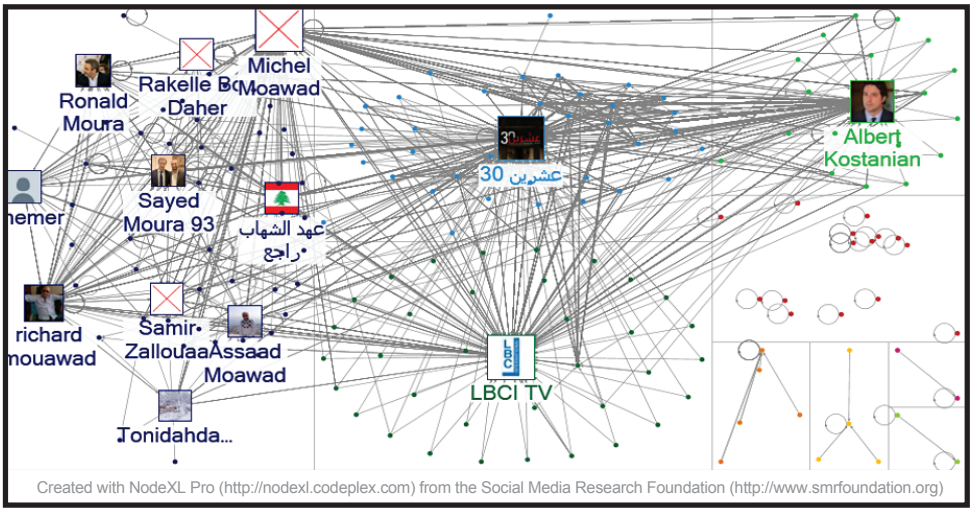

Figure 7. ***Visualization of the highest closeness centrality nodes in the network "Vision 2030"***

Once we have analyzed the structure of the networks, the researchers' last analysis is about the content of tweets published by dual screeners within these networks to determine the nature and quality of conversations and citizen deliberations.

Table 9: ***Number of tweets published by dual screeners by categories***

Category	@sarelwa2et	%	@Vision 2030 LBCI	%	@ALJADEEDNEWS (بتغرق_ع_وطن)	%
Information /streaming /report	612	**28.8**	1704	**84.6**	848	**40.9**
Opinion /comment	615	**28.9**	169	**8.4**	522	**25.2**
Request for interaction	88	**4.1**	26	**1.3**	55	**2.6**
Introduction of new issues, angles, sources, and analysis	291	**13.7**	20	**1**	212	**10.2**
Attack/insult	164	**7.7**	22	**1.1**	226	**10.9**
Jokes/irony	231	**10.9**	22	**1.1**	99	**4.8**
Emotion	34	**1.6**	44	**2.2**	54	**2.6**
Other	92	**4.3**	11	**0.5**	58	**2.8**

Table 9 shows a general tendency for the use of Twitter by dual screeners of each TV program. Users are primarily tweeting information already pronounced by guests and hosts during the broadcasting of programs or reporting what is happening during the talk shows.

Dual screeners of "Vision 2030" have the highest percentage in this category and are followed respectively by "Btefro aa Watan" with 40.9%, and "Sarelwa2et" with 28.8%. The second important function attributed to the platform by second screeners is the expression of opinion or comment about the talk show, topics, guests, and hosts (see Figure 8).

Dual screeners of "Sarelwa2et" are the most active in tweeting their opinions (28.9%) and users of "Btefro' aa Watan" come right behind them at 25.2%.

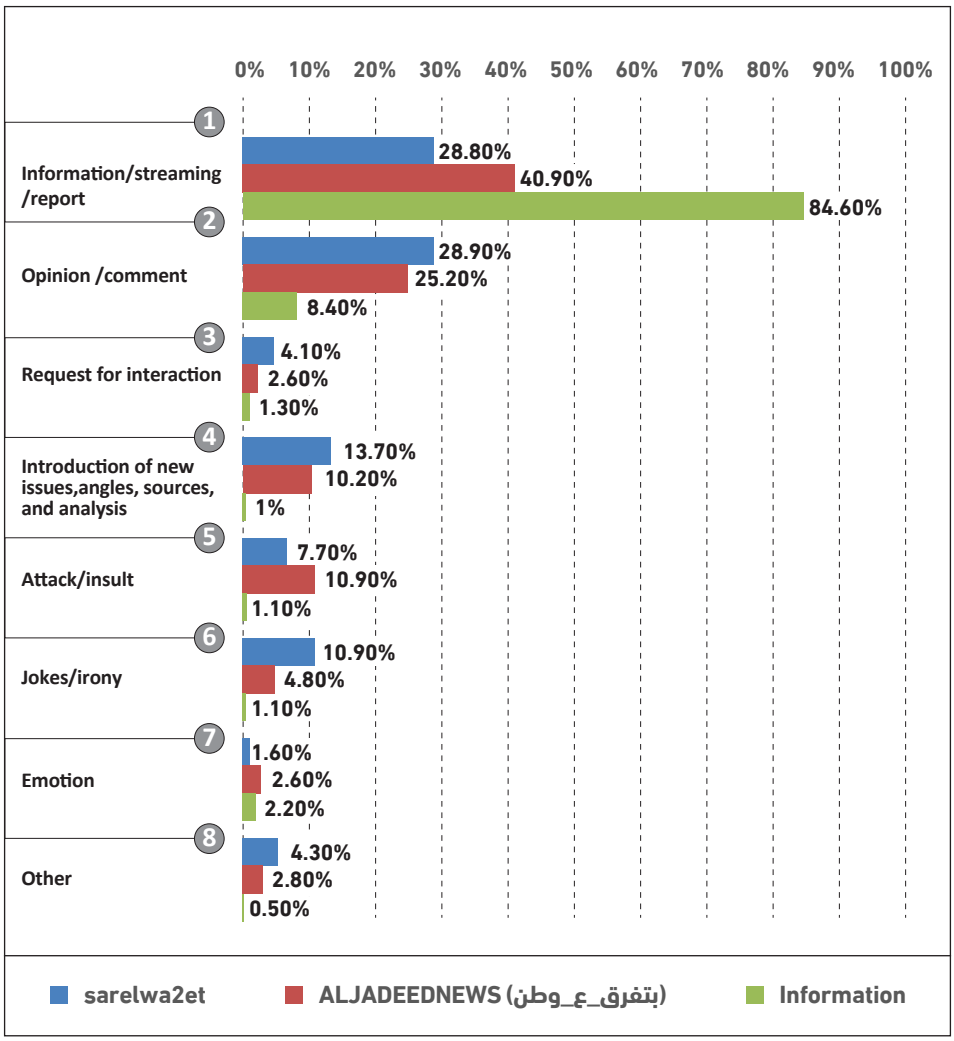

Figure 8. ***Percentage of the total number of tweets published by dual screeners by categories***

Moreover, the introduction via tweets of counter-frames, counter topics and their analysis through different angles than the ones presented on TV is relatively significant for the public of “Sarelwa2et” (13.7%) and “Btefro aa Watan” (10.2%) in comparison to that of the audience of “Vision 2030” (1%). This category is essential to determine the nature of conversations since deliberation requires rational exchanges of arguments and counter-arguments. In terms of interaction, dual screeners from all TV channels made minimal requests with guests or hosts of the talk show online with the highest percentage of 4.1 (Sarelwa2et). Furthermore, the amount of attack/insult tweets is more important

among “Sarelwa2et” and “Btefro’ aa Watan” dual screeners than those of “Vision2030”. Joke/irony is more present in tweets published by the public of “Sarelwa2et” (~11%) whereas it is much lower for the two other programs. Lastly, the number of emotional tweets barely exceeded 2% for all talk shows. Ultimately, the content analysis of tweets posted by dual screeners has demonstrated that the quality of the dialogue among users is still mediocre compared to the Habermasian ideal. The total of tweets categorized as jokes/irony, attack/insult, and emotion is higher for the three shows (respectively 20.2%, 18.3%, and 4.4% for “Sarelwa2et”, “Btefro aa Watan”, and “Vision 2030”, respectively) than the aggregate percentage of the two important categories in terms of quality and nature of dialogue: requests for interaction and introduction of new issues/angles/sources/analysis. Dual screeners have tweeted more about their own opinions and statements pronounced on TV by guests and hosts than to debate and challenge political information by counter-framing and argumentation (see Figure 8).

DISCUSSION AND CONCLUSION

Through descriptive, content, and network analyses, the present study was able to provide answers to the research questions above.

► **First**, the three Lebanese TV programs examined in this paper are using Twitter in a one-way publishing model by broadcasting information to users in a unidirectional way, similar to traditional media logic used on TV: “we write, you read” (Deuze, 2003, p. 220). The platform is being used as a tool for information diffusion and promotion via original tweets, rather than for the innovative and interactive affordances of Twitter such as retweets, replies, and mentions. The latter was only used to engage and interact with media organizations, journalists, and politicians. Interactions with normal users were limited to the posting of opinion polls, aiming at measuring public opinions about the topics of the programs. Thus, even when applied, interactive affordances are integrated and normalized to fit older media logics and practices, allowing TVs and journalists to hold on to their old journalistic habits but in an online environment. In addition, most of the tweets are only the diffusion of what is happening during talk shows via links from media organizations or pictures and videos taken from TV studios. There are very few materials produced for the platform by TV programs or their hosts. Hashtags are briefly announced at the beginning of the show but the audiences' tweets are rarely reported by TV hosts. Some studies have discovered significant cross-national differences concerning the quoting of tweets in traditional media. Broersma and Graham (2012) showed that British newspapers were more prone to cite tweets from non-elite users than tweets of politicians, whereas Dutch journals avoided non-elite tweets in favor of declarations tweeted by political figures. Therefore, Twitter affordances can be regarded as points of tension between traditional practices and routines of television and journalists, and newer ones that enable more audience interactions. However, some studies have suggested that in the long-run, traditional practices and norms of journalists might change to go with the flow with “what works” on Twitter (Broersma and Graham, 2016, p. 99). In this case, TV programs will need to engage with a wider audience on Twitter and not restrict interactions to journalists and politicians. Mondragon et al.'s (2017) argue for the necessity to modify the content, formats, and tools of TV shows and adjust them to the online feedback of dual screeners.

► **Second**, the descriptive analysis revealed that TV shows made use of retweets, mentions, and replies to engage only with their small circle of actors (journalists, media organizations, and

politicians), failing to interact with a larger array of voices and thus leading to an elite-centric discourse within their networks. Despite its open and flexible structure, Twitter does not guarantee the participation of all users in the discussion, especially if talk show accounts are avoiding to endorse a bottom-up communication approach. In that regard, the principle of inclusion in Habermas's public sphere is not achieved. The reproduction of an elite-centric discourse on Twitter can be explained in Lebanon by the strong relations between television channels and politicians. Political parallelism is a distinct characteristic of the Lebanese media system (El-Richani, 2016). Hence, the Lebanese media landscape is portrayed as "polarized and its dominant feature is the interwoven relationship between media and the politicians in Lebanon" (Harb, 2013, p. 41). These strong connections and affiliations are extrapolated on Twitter and might exclude or ignore any actors or topics that might challenge the traditional political content of TV shows. Besides, the reinforcement of ideas and information exposed during TV shows with the interaction of an insular group of users will contribute to transforming the networks into echo chambers.

► **Third**, the network analysis has indicated the central position of journalists, media organizations, and politicians in the Twitter networks of political TV shows. The mentioned actors are strong influencers, gatekeepers, and spreaders of information. However, the analysis has revealed that certain normal users were holding important positions in the networks, enabling the reinforcement or the introduction of new information and topics. Nevertheless, their low presence maintains a hierarchical structure of the network, preventing the absence of prominent elite actors.

► **Fourth,** the content analysis of dual-screener tweets was important to determine the level and quality of discussions on Twitter. Habermas (1992) describes the public sphere as a forum where citizens can exchange arguments on political issues rationally and critically. In contrast, critical thinking was not visible in TV audiences' tweets since they primarily used Twitter to repeat the statements of guests and hosts during the shows. The significant total of insult, irony, and emotional tweets challenges the concept of Habermas in terms of the quality of conversations. The number of tweets introducing new frames and analyses to contest or reinforce ongoing TV discussions is still very low to consider Twitter as an inclusive and dynamic space for political debate.

Twitter in Lebanon is still limited to a niche of active citizens. Out of a 6.8 million population (World Bank, 2020), barely half a million are active Twitter users (Dataportal, 2022). The broadcasting of 12 episodes from the three talk shows has generated an overall volume of 24,210 tweets by using their official hashtags during airtime. Therefore, the findings of this study have to be seen in the light of some limitations. The first one is the representativeness of the sample collected for this study whereby 7,446 were unique contributors of tweets, making up only 5% of the estimated Lebanese Twitter community. Sample representation could be improved by longer-term research that would better encompass dual screeners and the Lebanese Twitter population. In an earlier study about social media as a predictive tool for election results, Jungherr et al. (2011) demonstrated that data collection, more specifically the selection of political parties and the determination of period, has a significant impact on predicting election results or gauging public opinion. In the present study, the selection of the TV shows and the short time interval of data collection could have an important impact on the research findings. In addition, a larger sample of posts would most probably require the use of supervised machine learning for content analysis, which was not the case for this study. Secondly, the absence of demographics about dual screeners might

also be considered a limitation of the research. The little data available about users on digital platforms is often incomplete, wrong, or not necessarily made public. The absence of these socio-demographic data and the impossibility of socially locating the authors of the messages pose a major obstacle: that of the representativeness of the population studied. Finally, the growing presence of automated accounts or bots can also be regarded as a limitation to the legitimacy of the collected corpus on Twitter. Differentiating between real accounts, and therefore real opinions or reactions of users, and fake ones remains an obstacle for researchers during analysis.

However, Twitter remains an important space for topics related to politics (Verweij & Van Noort, 2014) and several studies have found an increase in tweets published during political media events on TV (Larsson & Moe, 2012; Vaccari, Chadwick, & O'Loughlin, 2015). Even with a restricted number of Twitter users, second screeners are contributing to the propagation of TV show content online and are attracting public attention (Ceron & Splendore, 2019). The inclusion and participation of TV audiences could be improved by the innovative integration of Twitter and its interactive affordances by TV shows. The ongoing development of technologies in communication and information will inevitably lead to more demands on the side of the public to play a greater role in the production of political information. This larger participation and inclusion cannot generate a public sphere if online discussions are reduced only to attack, insult, and irony. Improvement of media and digital literacy from users could pave the way to a better quality of dialogue and conversations. Finally, trolls and political bots are a real growing danger today, and they threaten to ruin any chance of an online public sphere (Keller & Klinger, 2018). Their online presence in every political debate, electoral campaign, and even political TV show is producing more political polarization and isolation, obliterating any opportunity for healthy and constructive deliberations. For this purpose, further research is recommended on different methods to detect bots' activities and their impacts on political communication online. In addition, supplementary research should examine the ability and capacity of traditional media outlets to integrate and make more use of social media platforms to address and engage users, more specifically, the youth. Finally, academic research and universities' curriculum shall play a significant role in preparing students and new generations for the use of social media in efficient and productive manners and improve digital literacy in a way that transforms the present and mostly superficial comments and conversations into constructive and deliberate public debates.

Note: *This paper has been published in Žurnalistikos tyrimai, 2022. 16, pp. 73-107.*

References

Athique, A. (2013) *Digital media and society: An introduction*. Malden, MA, USA: Polity Press.

Belair-Gagnon, V. (2015) *Social media at BBC news: the re-making of crisis reporting*. New York: Routledge.

Bennett, W. L. (2012) 'The personalization of politics: Political identity, social media, and changing patterns of participation', *The Annals of the American Academy of Political and Social Science*, 644(1), pp. 20-39. doi: https://doi.org/10.1177/0002716212451428

Berelson, B. (1952) *Content analysis in communication research*. New York: Free Press.
Bimber, B. and Davis, R. (2003) *Campaigning online: The internet in U.S. elections*. Cary: Oxford University Press.

Bossner, F. and Nagel, M. (2020) 'Discourse networks and dual screening: Analyzing roles, content, and motivations in political Twitter conversations', *Politics and Governance*, 8(2), pp. 311-325. doi: https://doi.org/10.17645/pag.v8i2.2573

Boukes, M. and Trilling, D. (2017) 'Political relevance in the eye of the beholder: Determining the substantiveness of TV shows and political debates with Twitter data', *First Monday*, 22(4), p. 1. doi: https://doi.org/10.5210/fm.v22i4.7031

Bruns, A. and Highfield, T. (2016) 'Is Habermas on Twitter? Social media and the public sphere, in A. Bruns, G. Enli, E. Skogerbø, A. O. Larsson & C. Christensen (Eds.). *The Routledge companion to social media and politics*. 1st edn, New York: Routledge, pp. 56-73. doi: https://doi.org/10.4324/9781315716299-5

Canter, L. (2015) 'Personalised tweeting: The emerging practices of journalists on twitter', *Digital Journalism*, 3(6), pp. 888-907. doi: https://doi.org/10.1080/21670811.2014.973148

Canter, L. and Brookes, D. (2016) 'Twitter as a flexible tool: How the job role of the journalist influences tweeting habits', *Digital Journalism*, 4(7), pp. 875-885. doi: https://doi.org/10.1080/21670811.2016.1168707

Ceron, A. and Splendore, S. (2019) 'Cheap talk''? Second screening and the irrelevance of TV political debates', *Journalism (London, England)*, 20(8), pp. 1108-1123. doi: https://doi.org/10.1177/1464884919845443

Ceron, A. and SpringerLink (Online service). (2017) *Social media and political accountability: Bridging the gap between citizens and politicians*. Cham: Springer International Publishing.

Chadwick, A. (2017) *The hybrid media system: Politics and power*. 2nd edn. New York: Oxford University Press.

Coddington, M., Molyneux, L. and Lawrence, R. G. (2014) 'Fact-checking the campaign: How political reporters use Twitter to set the record straight (or not)', *The International Journal of press/politics*, 19(4), pp. 391-409. doi: https://doi.org/10.1177/1940161214540942

Dagoula, C. (2019) 'Mapping political discussions on Twitter: Where the elites remain elites', *Media and Communication (Lisboa),* 7(1), pp. 225-234. doi: https://doi.org/10.17645/mac.v7i1.1764

Dahlgren, P. (2005) 'The internet, public spheres, and political communication: Dispersion and deliberation', *Political Communication*, 22(2), pp. 147-162. doi: https://doi.org/10.1080/10584600590933160

DataReportal (2022) *Digital 2022 Lebanon*. Available at: https://datareportal.com/reports/digital-2022-lebanon (Accessed: 19 May 2022).

De Michele, R., Ferretti, S., and Furini, M. (2019) 'On helping broadcasters to promote TV shows through hashtags', *Multimedia Tools and Applications*, 78(3), pp. 3279-3296. doi: https://doi.org/10.1007/s11042-018-6510-7

Deuze, M. (2003) 'The web and its journalisms: Considering the consequences of different types of news media online', *New Media & Society*, 5(2), pp. 203-230. doi: https://doi.org/10.1177/1461444803005002004

Djerf-Pierre, M., Ghersetti, M. and Hedman, U. (2016) 'Appropriating social media: The changing uses of social media among journalists across time', *Digital Journalism*, 4(7), pp849-860. doi: https://doi.org/10.1080/21670811.2016.1152557

El-Richani, S. (2016) *The Lebanese media: Anatomy of a system in perpetual crisis.* New York: Palgrave Macmillan.

Enli, G., Bruns, A., Skogerbo, E., Larsson, A. O. and Christensen, C. (2015) *The Routledge companion to social media and politics*. New York: Routledge. doi: https://doi.org/10.4324/9781315716299

Fincham, K. (2019) 'Exploring political journalism homophily on Twitter: A comparative analysis of US and UK elections in 2016 and 2017'. *Media and Communication (Lisboa)*, 7(1), pp. 213-224. doi: https://doi.org/10.17645/mac.v7i1.1765

Foster, L., Clark, T., Sloan, L. and Bryman, A. (2021) *Bryman's social research methods*. 6th edn. Oxford: Oxford University Press.

Fraser, N. (1990) 'Rethinking the public sphere: A contribution to the critique of actually existing democracy', *Social Text*, 25-26 (25-26), pp. 56-80. doi: https://doi.org/10.2307/466240

Gainous, J. and Wagner, K. (2014) Tweeting to Power: *The social media revolution in America*. New York: Oxford University Press.

Giglietto, F. and Selva, D. (2014) 'Second screen and participation: A content analysis on a full season dataset of tweets', *Journal of Communication*, 64(2), pp. 260-277. doi: https://doi.org/10.1111/jcom.12085

Gil de Zúñiga, H. and Liu, J. H. (2017) 'Second screening politics in the social media sphere: Advancing research on dual screen use in political communication with evidence from 20 countries', *Journal of Broadcasting & Electronic Media*, 61(2), pp. 193-219. doi: https://doi.org/10.1080/08838151.2017.1309420

Gil de Zúñiga, H., Garcia-Perdomo, V. and McGregor, S. C. (2015) 'What is second screening? Exploring motivations of second screen use and its effect on online political participation', *Journal of Communication*, 65(5), pp. 793-815. doi: https://doi.org/10.1111/jcom.12174

Graham, T., Jackson, D. and Broersma, M. (2016) 'New platform, old habits? candidates' use of Twitter during the 2010 British and Dutch general election campaigns', *New Media & Society*, 18(5), pp. 765–783. doi: https://doi.org/10.1177/1461444814546728

Greer, C. F. and Ferguson, D. A. (2011) 'Using Twitter for promotion and branding: A content analysis of local television Twitter sites', *Journal of Broadcasting & Electronic Media*, 55(2), pp. 198-214. doi: https://doi.org/10.1080/08838151.2011.570824

Habermas, J. (1992) 'Further reflections on the public sphere', in C. Calhoun (Ed.), *Habermas and the public sphere*. Cambridge, MA: MIT Press, pp. 421-461.

Hansen, D., Himelboim, I., Shneiderman, B. and Smith, M. A. (2020) *Analyzing social media networks with NodeXL: Insights from a connected world*. 2nd edn. United States: Morgan Kaufmann.

Harb, Z. (2013) 'Mediating internal conflict in Lebanon and its ethical boundaries', in D. Matar & Z. Harb (Eds.), *Narrating conflict in the Middle East: Discourse, image and communications practices in Lebanon and Palestine*. London: I.B. Tauris, pp. 38-57.

Hejase, A.J. and Hejase, H.J. (2013) *Research Methods: A Practical Approach for Business Students*. 2nd edn. Philadelphia, PA, USA: Masadir Incorporated.

Hermida, A., Fletcher, F., Korell, D. and Logan, D. (2012) 'SHARE, LIKE, RECOMMEND: Decoding the social media news consumer', *Journalism Studies* (London, England), 13(5-6), pp. 815-824. doi: https://doi.org/10.1080/1461670X.2012.664430

Highfield, T., Harrington, S., & Bruns, A. (2013) 'Twitter as a technology for audiencing and fandom', *Information, Communication & Society*, 16(3), pp. 315-339. doi: https://doi.org/10.1080/1369118X.2012.756053

Hindman, M. (2009) *The myth of digital democracy*. Princeton: Princeton University Press.

Holton, A.E., and Lewis, S.C. (2011) 'Journalists, social media, and the use of Humor on Twitter', *Electronic Journal of Communication*, 21(1/2), pp.1-22.2011-Holton-Lewis-2011-EJoC.pdf

Howard, P. N. and Parks, M. R. (2012) 'Social media and political change: Capacity, constraint, and consequence', *Journal of Communication*, 62(2), pp. 359-362. doi: https://doi.org/10.1111/j.1460-2466.2012.01626.x

Iannelli, L. and Giglietto, F. (2015) 'Hybrid spaces of politics: The 2013 general elections in Italy, between talk shows and twitter', *Information, Communication & Society*, 18(9), pp. 1006-1021. doi: https://doi.org/10.1080/1369118X.2015.1006658

Jungherr, A., Posegga, O. and An, J. (2019) 'Discursive power in contemporary media systems: A comparative framework', *The International Journal of press/politics*, 24(4), pp. 404-425. doi: https://doi.org/10.1177/1940161219841543

Jungherr, A., Jürgens, P. and Schoen, H. (2011) 'Why the Pirate Party Won the German Election of 2009 or The Trouble With Predictions: A Response to Tumasjan, A., Sprenger, T. O., Sander, P. G., & Welpe, I. M. Predicting Elections With Twitter: What 140 Characters Reveal About Political Sentiment', *Social Science Computer Review*, 30(2), pp. 229-234. doi: 10.1177/0894439311404119

Keller, T.R. and Klinger, U. (2018) 'Social Bots in Election Campaigns: Theoretical, Empirical, and Methodological Implications', *Political Communication*, 36(1), pp. 171-189. doi: https://doi.org/10.1080/10584609.2018.1526238

Klinger, U. and Svensson, J. (2015) 'The emergence of network media logic in political communication: A theoretical approach', *New Media & Society*, 17(8), pp. 1241-1257. doi: https://doi.org/10.1177/1461444814522952

Kozman, C. and Cozma, R. (2021) 'Lebanese television on Twitter: A study of uses and (dis)engagement', *Journalism Practice*, 15(4), pp. 508-525. doi: https://doi.org/10.1080/17512786.2020.1732832

Larsson, A. O. (2013) 'Tweeting the viewer-use of twitter in a talk show context', *Journal of Broadcasting & Electronic Media*, 57(2), pp. 135-152. doi: https://doi.org/10.1080/08838151.2013.787081

Larsson, A. O. and Moe, H. (2012) 'Studying political microblogging: Twitter users in the 2010 Swedish election campaign', *New Media & Society*, 14(5), pp. 729-747. doi: https://doi.org/10.1177/1461444811422894

Lasorsa, D., Lewis, S. and Holton, A. (2012) *'Normalizing Twitter', Journalism Studies*, 13(1), pp. 19-36. doi: https://doi.org/10.1080/1461670X.2011.571825

Lawrence, R. G., Molyneux, L., Coddington, M. and Holton, A. (2014) 'Tweeting conventions: Political journalists' use of twitter to cover the 2012 presidential campaign', *Journalism Studies (London, England)*, 15(6), pp. 789-806. doi: https://doi.org/10.1080/1461670X.2013.836378

Lewis, S. C. (2012) 'The tension between professional control and open participation: Journalism and its boundaries', *Information, Communication & Society*, 15(6), pp. 836-866. doi: https://doi.org/10.1080/1369118X.2012.674150

Marchetti, R. and Ceccobelli, D. (2016) 'Twitter and television in a hybrid media system: The 2013 Italian election campaign', *Journalism Practice*, 10(5), pp. 626-644. doi: https://doi.org/10.1080/17512786.2015.1040051

Margolis, M. and Resnick, D. (2000) *Politics as usual: The cyberspace "revolution"*. Thousand Oaks: Sage Publications.

Molyneux, L. (2015) 'What journalists retweet: Opinion, humor, and brand development on twitter', *Journalism (London, England)*, 16(7), pp. 920-935. doi: https://doi.org/10.1177/1464884914550135

Molyneux, L. and Mourão, R. R. (2019) 'Political journalists' normalization of Twitter: Interaction and new affordances', *Journalism Studies (London, England)*, 20(2), pp. 248-266. doi: https://doi.org/10.1080/1461670X.2017.1370978

Molyneux, L., Mourão, R.R and Coddington, M. (2016) 'U.S. Political Journalists' Use of Twitter: Lessons from 2012 and a Look Ahead', in R.C. Davis, C. Holtz-Bacha, & M.R. Just (Eds.), *Twitter and Elections around the World: Campaigning in 140 Characters or Less*. New York: Routledge, pp. 43-56.

Mondragon, V. M., García-Díaz, V., Porcel, C. and Crespo, R. G. (2017) 'Adaptive contents for interactive TV guided by machine learning based on predictive sentiment analysis of data'. *Soft Computing (Berlin, Germany)*, 22(8), pp. 2731-2752. doi: https://doi.org/10.1007/s00500-017-2530-x

Mourão, R. R. (2015) 'The boys on the timeline: Political journalists' use of Twitter for building interpretive communities', *Journalism (London, England)*, 16(8), pp. 1107-1123. doi: https://doi.org/10.1177/1464884914552268

Mourão, R., Diehl, T. and Vasudevan, K. (2016). 'I love big bird: How journalists tweeted humor during the 2012 presidential debates'. Digital Journalism, 4(2), pp. 211-228. doi: https://doi.org/10.1080/21670811.2015.1006861

Pariser, E. (2012) *The filter bubble: What the internet is hiding from you*. London: Penguin Books.

Scott, J. and Carrington, P.J. (2011) *The SAGE handbook of social network analysis*. London: SAGE.

Singer, J. B. (2005) 'The political j-blogger: 'Normalizing' a new media form to fit old norms and practices', *Journalism (London, England)*, 6(2), pp. 173-198. doi: https://doi.org/10.1177/1464884905051009

Singer, J. B. (2014) 'User-generated visibility: Secondary gatekeeping in a shared media space', *New Media & Society*, 16(1), pp. 55-73. doi: https://doi.org/10.1177/1461444813477833

Stieglitz, S. and Dang-Xuan, L. (2013) 'Emotions and information diffusion in social media-sentiment of microblogs and sharing behavior', *Journal of Management Information Systems*, 29(4), pp. 217-248. doi: https://doi.org/10.2753/MIS0742-1222290408

Stromer-Galley, J. (2014) *Presidential campaigning in the internet age*. New York: Oxford University Press.

Tandoc, E. C. and Vos, T. P. (2016) 'The journalist is marketing the news: social media in the gatekeeping process', *Journalism Practice*, 10(8), pp. 950-966. doi: https://doi.org/10.1080/17512786.2015.1087811

Vaccari, C., Chadwick, A. and O'Loughlin, B. (2015) 'Dual screening the political: Media events, social media, and citizen engagement: Dual screening the political', *Journal of Communication*, 65(6), pp. 1041-1061. doi: https://doi.org/10.1111/jcom.12187

Verweij, P. and van Noort, E. (2014) 'Journalists' Twitter networks, public debates, and relationships in South Africa', *Digital Journalism*, 2(1), pp. 98-114. doi: https://doi.org/10.1080/21670811.2013.850573

Walters, P. (2021) 'Reclaiming control: How journalists embrace social media logics while defending journalistic values', *Digital Journalism*, 1(20). doi: https://doi.org/10.1080/21670811.2021.1942113

World Bank. (2020) *Population, total-Lebanon*. World Bank: World Development Indicators. Available at: https://data.worldbank.org/indicator/SP.POP.TOTL?locations=LB (Accessed: 20 May 2022).

JOURNALISM: AS SEEN IN THE EYES OF CURRENT JOURNALISM AND DIGITAL MEDIA STUDENTS

[1]Rana Aladdine
Email: raaladdin@gmail.com

Abstract: The world of journalism is complex, multifaceted, and intricate. No consensus exists on the definition of journalism or its characteristics, skill set, and career choices. Differing perceptions stem from journalism's shifts to new forms, practices, and ways of thought. The digital revolution has drastically transformed the understanding and definition of journalism. Journalists, journalism educators, and even social critics have all offered varying notions on the field. However, the students, a key element, are often neglected in this equation. This paper exploreshow students view journalism. The current generation is arguably highly equipped with digital media through regular practice, consumption, and exposure to digitization. Journalists-to-be are considered to be the future shareholders and may be the directors of the profession. The study focused on how journalism and digital media students specifically classified journalism characteristics, the educational background they found necessary for journalists, as well as their work aspirations. As journalism is evolving and, in particular, digital journalism is a key factor in the study, the student sample was limited to those registered in the Journalism and Digital Media department at Al Maaref University. Al Maaref University has been categorized as one of the first universities in Lebanon to include the term "digital media" in their journalism degree in hopes of reflecting the fast-changing industry. This study used a quantitative approach based on a survey questionnaire administered online to all students enrolled in the above-mentioned department. Findings showed that the majority of students considered the top characteristics of a journalist to include traditional journalism skills before any digital journalism skills. Students also expressed areas of study at times consistent with those skills and other times consistent with their career choices. Moreover, a majority of current journalism students aspire to work in front of the camera.

Keywords: Journalism, digital media, characteristics, students, work aspirations, Al Maaref University, Lebanon

INTRODUCTION

Positioning journalism, its roles, and responsibilities have long resulted in intense differences due to its ever-evolving essence and shifts to new forms, practices, and ways of thought. Journalism is viewed as a profession, an industry, a phenomenon, and a culture all at once (Zelizer, 2005). Defining journalism has long been a debatable task among journalists and academics. Deuze and Witschge (2017) argued that "journalism is transitioning from a more or less coherent industry to a highly varied and diverse range of practices" (p. 166). Differences in identifying journalism include how it should be practiced, the educational competencies it requires, the technology deemed necessary to carry out the job, and the career choices it offers.

Journalism is no new concept to mankind. It is a universal phenomenon that has long offered advanced ways to communicate and connect that no other species on earth experiences. The earliest forms of expression and information exchange were

*1 Instructor at Faculty of Mass Communication & Fine Arts, Al Maaref University; PhD student at St. Joseph University of Beirut

considered critical survival tools to navigate the environment. Nowadays, humans have modernized their communication, “developing more intricate ways to express, from cave paintings to the written word and illuminated manuscripts to Twitter, the telephone, and FaceTime” (Maryville University, n.d., para.1). The idea of popular media and journalism evolved in the 19th century, before undergoing at least four revolutions. Beginning with print, the earliest forms of independent newspapers with reporters emerged in the 19th century (Maryville University, n.d.). Then came the development of radio, followed by the highly powerful television. In the 21st century, the Internet entered the journalism scene before generations were introduced to the fourth revolution known as mobile technology. Both revolutions profoundly changed the notion of journalism and its operation, forcing institutions and their participants to rethink and fine-tune their tasks and features.

Many forces have entered the journalism landscape offering their independent notion of the subject. Those include media organizations, industries, markets, and educational institutions. For example, non-profit organizations (NGOs) are offering neutral and broad-spectrum definitions of journalism, saying it is the act of “gathering, assessing, creating, and presenting news and information. It is also the product of these activities” (American Press Institute, n.d., para.1). Journalists are expressing their views, presenting themselves in all shapes and forms such as professional broadcasters, reporters, writers, bloggers, podcasters, photographers, scientists, analysts, and social media personnel. Internationally, the journalism market is modernizing itself continuously. Within the last decade, terms such as multimedia, digital media, social media journalism, e-journalism, mobile media, and convergence have become emerging trends. This has caused major shifts in newsrooms and information hubs as they update their work ethics to keep up with technological advancements, especially in a time of aggressive competition and dire economic situations. There is now a growing demand for digitally competent journalists (Bor, 2014). Finally, universities have also focused on innovation, research, and multi-platform journalism. Most universities today are updating their programs and offering some insight into multimedia, social media, and online journalism. But what remains missing, at times, are the future journalists' viewpoints, i.e., the students currently in training with hopes of entering the world of journalism. They are the journalists-to-be and the future shareholders and directors of the field. Their notion of what constitutes journalism is crucial for the understanding of how the modern generation perceives the field and where it is heading.

This current research aims to characterize journalism as seen through the eyes of aspiring journalists. A case study will be conducted with students registered in the Journalism and Digital Media (JDM) department in the Faculty of Mass Communication and Fine Arts (MCFA) at Al Maaref University in Beirut, Lebanon. The journalism department at Al Maaref University is one of the newest in Lebanon as it has been in production for seven years and is still undergoing regular updates to reflect industry changes. In addition, the journalism department is part of one of the top three media faculties across the country. The research will utilize Pierre Bourdieu’s Field Theory and the Normalization Process Theory as theoretical frameworks to understand how current journalism students in Lebanon, especially those enrolled in new curricula with an emphasis on digital media, define journalism. An online questionnaire is administered to gather information regarding the students' notion of

journalism, the characteristics they perceive to be necessary for a successful journalist, and their aspirations. This research will provide educators with details on the realities of students' views and goals when entering their programs to dictate both the similarities and differences in perceptions between them. It will also offer inspiration on how to effectively lead and participate in future journalism revolutions. The remaining research paper is divided into four sections. The first addresses the literature review with insight into current knowledge regarding the definitions of journalism and digital journalism to give clear context on the representation and denotation of each term. The second section discusses the theoretical foundations consisting of the Field Theory and Normalization Process Theory. Section three covers the methodology detailing the procedures, tools, and techniques used to collect relevant data. Finally, the results produced will be discussed and finalized with a conclusion, final recommendations, limitations, and future research.

LITERATURE REVIEW

- **Journalism**

Since journalism is accompanied by different and at times contradictory terms, functions, characteristics, titles, and routines, one well-rounded definition of journalism is impossible. Nevertheless, journalism can be confronted on and with multiple levels and meanings. For this study, journalism will be observed in three different ways: Journalism as a service, journalism as a profession, and journalism as a practice, as introduced by Barbie Zelizer, a former journalist and academic. Such diverse interpretations of journalism will reflect how both journalists and scholars view the specialty. It will also display the purpose of the study of focusing on journalism characteristics, areas of study, and work aspirations among current students.

> Many journalists tend to constitute journalism as a service. This means working for the interest of the public and thinking of the needs of healthy citizenship (Zelizer, 2005). In this sense, journalists require skills to provide the public with accurate information to enhance the lives of the public through their understanding of current events (Harrison, 2019). Journalists have the responsibility to investigate and reflect on the diversity of their cultures and surroundings (Hanusch and Hanitzsch, 2017). This means not isolating themselves and their work from the lives of poor and working-class individuals (Zelizer, 2005). In short, journalism as a service includes connecting with the public on an ethical and truthful level and creating a common language with citizens (UNESCO, 2022). It also means the assessment of news relevance and judgment among audiences.

Scholars tend to view journalism as a profession (Davis, 2010). This includes "a set of professional activities by which one qualifies to be called a journalist" (Zelizer, 2005, p. 72). The idea of journalism as a profession includes viewing the topic of journalism as a body of knowledge. A role that is defined by a certain set of competencies and methods is viewed as appropriate within the professional community and by society (Donsbach, 2013). Journalism, as a profession, means producing high-quality work. This includes knowledge of current events, an understanding of various topics that journalists may cover, proficient skills in writing, interviewing, fact-checking, and a promise to fulfill values and roles (Ibid). Through such a viewpoint, scholars believe journalists can gain independence and accountability.

According to the American Press Institute (2019, para 1), journalism can also be considered a set of practices. That puts a focus on the applied and hands-on part of journalism. It revolves around the procedures, methods, and exercises executed to gather and present information (Zelizer, 2005). This can include developing computer literacy, maintaining objectivity, and focusing on governmental issues (Walters, 2011). Applying independence, verification, and loyalty are also considered best practices for journalists (Kovach and Rosenstiel, 2001).

- **Digital Journalism**

The above breakdown of journalism echoes its traditional form. Although the digital revolution has transformed the way journalism is described and comprehended. Journalism cannot be discussed without taking into consideration the modern digital environment currently facing the world (Alves, 2009, p. 5). Digital journalism is dedicated to sending information to audiences in a digital form. The medium in which the content is posted on the Internet can vary in form between text, audio, or video (Singer, 2011). Information produced for a digital environment includes journalists utilizing tools different from pen and paper. Emails, laptops, tablets, mobile phones, voice recorders, blogs, self-publishing tools, and digital video recorders are essentials for a digital journalism kit (Mari, 2019, as cited in Ferrucci and Perreault, 2020). In other words, what differs between traditional journalism and digital journalism are not the values and procedures of the job but rather the tools or technologies used.

Digital journalism has evolved the roles and responsibilities of journalists. According to Guaglione (2022), the BBC, the national broadcaster of the United Kingdom, announced in February 2022 its plans to double its digital journalism team in the US and Canada. In 2013, when recruiting, Steve Herrmann, editor of the BBC News website shared a list of skills needed in the newsroom. That included traditional skills of curiosity and resourcefulness, writing, speed and accuracy, visual storytelling (such as still photos, video, graphics, and audio), social media use for news gathering and dissemination, and an appreciation for data (Marshall, 2013).

Digital journalism is translated across the international landscape differently; in the United States, almost every major newspaper offered an online edition to its subscribers by the early 2000s (Colon, 2000). In Lebanon, the media scene is large with approximately 10 privately owned daily newspapers, 1500 weekly and monthly periodicals, nine television stations, and 40 radio stations (Media Ownership Monitor Lebanon, 2018), most of which offer online equivalents. Bashir et al. (2022) contend that the digital landscape in Lebanon shows a growth of “78.2% of Internet users (a percentage of an estimated population of 6.8 million) and 64.3% of active users of social media platforms" (p. 9), and that “85.4% agreed that they rely on social media platforms as one of the tools for searching and obtaining information” (p. 20). Still, newsrooms in the country have continued to struggle with digitization (Hodali, 2019). The lack of the Lebanese industry's development may result from several factors including sectarianism in the media, lack of funds, and limited media freedom (ibid). Moreover, the evolution of digital media is rather slow due to the country’s lack of infrastructure and limited international bandwidth.

Educational institutions in Lebanon are following suit with industry changes in technologies. A few universities in Lebanon, including the Lebanese American University (LAU), Al Maaref University (MU), University of Sciences And Arts in Lebanon (USAL), Lebanese University (LU), and others have now added courses that revolve around multimedia, social media, and digital media as core content. For example, LAU now offers BA and MA programs titled Multimedia Journalism. MU and USAL offer degrees in digital media while LU has recently developed a Master's in Arts program in Digital Journalism. Others have revamped their curricula design to include such terms in their degree names. Journalism schools play a vital role in providing insight into new practices and trends in the field (Grueskin, 2018). Those are also expected to constantly update their curricula and integrate new digitized skills based on industry renovations.

THEORETICAL FOUNDATION

- **Field Theory**

Pierre Bourdieu's Field Theory discusses social spaces, also known as fields, in a society where agents interact within their organizations. Each field, whether economic, political, cultural, artistic, sports, or religious, involves rules and principles on how action and cooperation should occur (Benson, 2006). A field has important participants that work in harmony to benefit and improve their specialization and individual intellect (Sánchez Dromundo, 2007). This research will apply Bourdieu's theory by considering the journalism profession as a field.

Bourdieu argues that fields are occupied by *incumbents*, who are shareholders who aim to maintain the identity of the field. Some *insurgents* have wished to change the field with their newly increased responsibility (Vos, 2019, as cited in Perreault & Ferrucci, 2020). Perreault & Stanfield (2019, as cited in Perreault & Ferrucci, 2020) have considered mobile journalists and Vos, Craft & Ashley (2012, as cited in Perreault & Ferrucci, 2020) added bloggers to be insurgents offering a change in the field of journalism. For this study, aspiring journalists or students are viewed as insurgents. With their degrees, internship experience, and society volunteering, students become active representatives of journalists who offer fresh insight into the notion of journalism and the skills needed.

A concept in the field theory known as *habitus* examines the set of feelings, behaviors, and practices shaped into an individual as a result of the specific environment surrounding them (Benson and Neveu, 2005). Students become operational members of the journalism field upon their enrolment in educational institutions. Through their training, students form a set of values and principles regarding the journalism field. The habitus of a student may differ from one to another depending on the level of education they receive, the curriculum they have consumed, and their interactions in school and with the market. This study will refer to students' habitus formed based on the department they belong to. Students in Journalism and digital media are considered essential elements. They offer a fresh perspective on journalism by combining traditional and new media. Their work aspirations and goals may also differ.

Doxa is an important concept in field theory. It tackles the basic beliefs and values

engrained in a field's participants (Benson and Neveu, 2005). Such rules are often untold but rather learned through time. These are sets of norms such as ethical standards and newsworthiness in journalism. For this study, the doxa may include the guidelines of students regarding journalism that may not be explicitly discussed in the classroom. Instead, these are students' viewpoints established based on their experience and prior knowledge entering the field.

- **Normalization Process Theory**

The normalization process theory focuses on actions that individuals or groups perform during complex interventions that turn into everyday practice (Murray et al., 2010). This means that when specific interventions become embedded into routine practices, they disappear or, in other words, become normalized (Ibid). Normalized practices are neither eternal nor are they always preferred. Normalization can evolve with time. In regards to journalism, typewriting for newspapers used to be a normal action. Nowadays, digitizing content is the new norm. This falls under the new norm stressed by Liu Zhenmin, UN Under-Secretary-General and Head of UN DESA, "These include digital economy, digital finance, digital government, digital health, and digital education" (UN, 2020, para 3). Normalization theory is concerned with what work or activities actors execute to enable normalization or routinization. The theory originated to explain how technologies were embedded in healthcare work. However, it has also been applied in other fields. Journalism scholars Gregory Perreault and Patrick Ferrucci used this theory to examine how digital journalists define their field and the practices they found essential (Perreault and Ferrucci, 2020).

→ According to Gillespie *et al*. (2018), there are four main components to the normalization process theory. Exhibit 1 explains briefly these components.

Exhibit 1: ***Normalization process components***
First, is *coherence*. This means the sense-making work people do when they implement a set of practices.
Second, is *cognitive participation* which revolves around the engagement of people within a certain field. This is the work people are involved in to sustain a community of practice.
Third, *Collective action* which means the participants (at work) in a field undergo that enables an intervention, i.e., it is the effort people complete to enact a set of practices.
Fourth, is *reflexive monitoring* which involves the formal and informal appraisal of the benefits and costs of the 'intervention'. It is a work carried out to evaluate and recognize how new sets of practices affect individuals and those around them.

Source: *Gillespie et al.,* 2018; Murray et al., 2010.

The components of the given theory will help assess the characteristics students will offer in their observation of journalism. The basis on which students define journalism and how it relates to the practices they believe are necessary for executing such work

is important. Students are a central factor in the field of journalism. They offer fresh insight into the subject and will act as leaders when they enter the field. Not only are they future journalists, but they are also current actors in the field. Some pursue jobs in journalism before formally graduating, and others engage in journalistic work through extra-curricular activities, internships, and volunteering. This signifies that students are an integral part of the equation when discussing work practices and journalism evolution.

» As a result of the literature review above, the following research questions are posed:

RQ1 **What characteristics do journalism and digital media students find necessary for working in journalism?**

RQ2 **What educational background should journalists come from according to journalism and digital media students?**

RQ3 **What are the current work aspirations of journalism and digital media students?**

METHODOLOGY

For this research, the researcher crafted an online survey that was distributed to all journalism and digital media students at Al Maaref University for data collection. Among the 105 students registered in the spring 2021-2022 semester, a total of 46 responses were recorded. This resulted in a 44% response rate. However, it is necessary to establish the reliability of the final sample size of 46 students by following a similar approach used by Younis et al. (2022) and Hashem et al. (2022) in applying the published resources by Hardwick Research (2022). In the case of a population size of about 100, a confidence level of 95% [α=5%], and seeking acceptable reliability of about 10%, the sample size would be 50. Hence, the sample size of 46 would be about ±9.7% at the 95% confidence level which means that in 92.3 out of 100 repetitions of the survey, results will not vary more than ±9.7%, acceptable reliability for exploratory research.

SURVEY DESIGN

The survey was prepared in Arabic and English and sent to students via email and WhatsApp with the university's administration's approval. All participation was anonymous. The survey offered a neutral and general definition of journalism, stating it is “someone who collects, writes, and distributes information to the public. A journalist can work for a newspaper, radio, TV, or the web. Editors, reporters, presenters, and news anchors are all considered journalists.”

The survey constituted four sections:

(1) Demographics, including gender, age, educational background, and certainty in wanting to work in the field of journalism, **(2)** journalistic characteristics, **(3)** choice of journalism-related subjects to be studied by students, and **(4)** students' work aspirations. Questions were distributed as follows:

→ **To answer RQ1** on the characteristics journalism and digital media students found necessary, questions asked included how students would describe the level of importance of 22 different journalistic characteristics. This meant answering whether each was very important, somewhat important, or not important. The characteristics given varied between traditional journalism and digital media skills. This included proficiencies in reading and writing, critical thinking, communication, investigation, truth-seeking, computer, multimedia, storytelling, speed, and accuracy. Specific traits such as charisma, attractiveness, charming personalities, and determination were also listed.

→ **To answer RQ2** on the educational background journalism and digital media students felt were important, students were asked what they believe journalists should study before officially entering the market. They were given 13 subjects related to journalism to order based on priority.

→ **To answer RQ3** dealing with journalism and digital media students' work aspirations, they were asked to describe what areas of journalism they needed to enter the job market after graduation. Participants were given a list of 15 journalism fields and were asked to order them based on priority.

DATA ANALYSIS

Hejase and Hejase (2013) define descriptive statistics as "dealing with describing a collection of data by condensing the amounts of data into simple representative numerical quantities or plots that can provide a better understanding of the collected data" (p. 272). Therefore, this research used frequencies and percentages to describe the variables under study using tables for clarity.

GROUNDED THEORY

The researcher used grounded theory to justify theoretical conclusions through data and analysis (Bryman, 2016). A constant comparative analysis occurred to compare how a student's work aspirations may have affected their notion and characteristics of journalism. In addition, this analysis was important to decipher how students registered in journalism with an emphasis on digital media viewed journalism. Responses were analyzed statistically as well as thematically. This meant extracting core themes found in the students' responses regarding how they conceived journalism and their goals for the future. That helped classify the overall agreements students had regarding journalism and any differences.

RESULTS AND FINDINGS

- **Demographics**

Results show that about 83% (39 out of 47) were females and 17% (9 out of 47) were males. As for their age, 38.3 % of the students belonged to the category 17-19 years old (n=18), 36.2% belonged to the age category 20-22 years old (n=17), 12.7% (6 out of 47) were 23 to 25 years old, and 4.2% (2 out of 47) for each of the remaining age categories 26-28 years old and above 30 years old. In terms of their high school educational background, 85.1% (40 out of 47) of the students earned their Lebanese Baccalaureate certificate, 8.4% (4 out of 47) students reported receiving a Vocational Baccalaureate, and an equal 2.1% (1 student) received a French Baccalaureate and an International Baccalaureate.

- **Journalism Characteristics**

The data collected for RQ1 indicate that journalism and digital media students expressed their views on the characteristics of journalism around three themes: traditional journalism skills, digital media-related skills, and physical/personality characteristics. Those themes are closely related to substantial competencies experts believe are needed for journalism students. According to Fred Silverman (2022), the Chair of the Broadcast Journalism School at the New York Film Academy, multimedia journalists are first and foremost in need of developing essential journalism skills. This includes learning to read and write as well as verify the information. Other educational institutions such as Seamedu, a top media school in the Middle East, describe the knowledge of journalism, communication, and news gathering as essential journalism qualities (Seamedu, 2019). Storytelling, creating compelling visuals, and effectively using social media are also considered key abilities in modern journalists looking to work in the digital field (Silverman, 2022). Universities are stressing the importance of including digital literacy skills to teach students how to use computers, websites, smartphones, and other broadcasting mediums to craft their news (Seamedu, 2019). Finally, physical characteristics are also deemed necessary. The New York Film Academy discusses the need for students to master confidence and showcase charisma to have proper on-air performances (Silverman, 2022). These important competencies are shown clearly in the responses of students at Al Maaref University.

- **Traditional Skills**

There was an overwhelming expression of the extreme importance of traditional skills of journalism. Journalism and digital journalism students tended to believe these conventional skills were more important than those related to digital media. As shown in Table 1, all 100% of respondents agreed that communication skills were a priority for journalists, all leveling the skill as very important. Other majorities found in the data included the characteristics of being a truth seeker (97.8%), having confidence (97.8%), and being accurate (95.6%) – all of which were deemed very important. Reading and writing skills (93.4%), knowledge of current events (93.4%), and good news judgment (91.3%) were also among the top characteristics that students viewed as very important.

- **Digital Media Skills**

Students believed that digital media skills were secondary to traditional ones. However, the majority agreed on the importance of such skills. Multimedia skills (86.9%), investigation (73.9%), computer (67.3%), and storytelling (54%) were viewed as very important by most students. Not a single student believed that the skills in multimedia, investigation, and computer were not important. Curiosity (69.5%), creativity (69.5%), and speed (56.5%) – all of which are important elements when producing media for the digital world were also considered very important by the majority.

- **Physical Characteristics & Personality**

Although not considered a top priority, journalism and digital media students believed that certain physical characteristics and one's personality are necessary for entering the field. Having charisma (52.1%) and a charming personality (45.6%) were considered very important for most students. Being attractive was seen as somewhat important by 47.9% of respondents.

Table 1: ***Level of Importance on Journalism Characteristics***

	Very Important	Somewhat Important	Not Important
Communication Skills	46 (100%)	0 (0%)	0 (0%)
Truth-Seeker	45 (97.8%)	1 (0.02%)	0 (0%)
Confidence	45 (97.8%)	1 (0.02%)	0 (0%)
Accuracy	44 (95.6%)	2 (0.04%)	0 (0%)
Reading & Writing Skills	43 (93.4%)	3 (0.06%)	0 (0%)
Knowledge of Current Events	43 (93.4%)	3 (0.06%)	0 (0%)
News Judgement	42 (91.3%)	4 (0.08%)	0 (0%)
Multimedia Skills	40 (86.9%)	6 (13.0%)	0 (0%)
Determination	39 (84.7%)	7 (15.2%)	0 (0%)
Critical Thinking	38 (82.6%)	8 (17.3%)	0 (0%)
Close Relationship with Sources	35 (76.0%)	11 (23.9%)	0 (0%)
Investigation Skills	34 (73.9%)	12 (26.0%)	0 (0%)
Curiosity	32 (69.5%)	14 (30.4%)	0 (0%)
Creativity	32 (69.5%)	14 (30.4%)	0 (0%)

	Very Important	Somewhat Important	Not Important
Computer Skills	31 (67.3%)	15 (32.6%)	0 (0%)
Speed	26 (56.5%)	18 (39.1%)	2 (0.04%)
Storytelling Skills	25 (54.3%)	18 (39.1%)	3 (0.06%)
Charisma	24 (52.1%)	19 (41.3%)	3 (0.06%)
Lack of Prejudice	22 (47.8%)	16 (34.7%)	6 (13.0%)
Charming Personality	21 (45.6%)	21 (45.6%)	4 (0.08%)
Nosey	13 (28.2%)	23 (50.0%)	10 (21.7%)
Attractive	10 (21.7%)	22 (47.9%)	14 (30.4%)

- **Educational Background**

Following observation of the data collection for RQ2, journalism, and digital media students offered surprising insights on the areas they believed journalists should study to enter the field. During the survey, students were asked to rank order 13 areas in that journalists should be trained. All the areas mentioned in the survey are known to the respondents and are part of the curriculum offered in the Journalism and Digital Media Department at Al Maaref University. Students were given the option of ordering certain areas more than once. For example, students were allowed to rank more than one option as a first choice without limitation to reflect the reality of the importance of each area. Table 2 was created to show how many responses were received for each area of study based on students' first, second, and third choices only. The responses were then calculated based on the number of choices and the ranking frequency to form a score centered on weight. Finally, the choices were rank ordered by their overall rank.

Table 2 shows that the top five subjects ranked by students included ethics and law, communication, reporting and writing, announcing, and research, respectively. Unexpectedly, the area of social media was ranked number 9 out of a total of 13 subjects. Multimedia and web design, a characteristic that students deemed very important earlier in the survey, ranked lower at 12. These declining results do not necessarily mean students do not view multimedia or design as important studies but it is inferred that traditional journalism courses remain the most important. Other research works agree, for example, Fahmy (2008) showed that online journalists ranked editing, reporting, writing, research, and interviewing as the most important despite the rise of digital media. Although journalists believed photo, video production, and web coding were increasing in importance; traditional journalism topics remain among the top-ranked in significance (ibid).

Table 2: ***What Areas Journalists Should Study***

Area of study	First choice	Second choice	Third choice	Weight score	Ranking
Ethics and Law	19	7	7	72	**1**
Communication	15	12	2	71	**2**
Reporting & Writing	14	2	3	49	**3**
Announcing (Anchor, Presenter, Reporter)	11	6	4	49	**4**
Research	10	6	4	46	**5**
Investigation	7	5	9	40	**6**
Photo/Video Editing	8	3	6	36	**7**
Public speaking	8	3	5	35	**8**
Social Media	9	2	3	34	**9**
Photography/ Videography	7	3	4	31	**10**
Public Relations	4	5	4	26	**11**
Multimedia & Web Design	6	3	1	25	**12**
Radio & TV	3	6	1	22	**13**

- **Work Aspirations**

Following observation of the data collection for RQ3, a high number of journalism and digital media students expressed their goals in pursuing careers in journalism in front of the camera. Results show that 43.5% of the respondents (20 out of 47) replied yes to wanting to work in front of the camera, 17.4% (8 out of 47) said no, and 39.1% (18 out of 47) answered maybe. Similar patterns were then found when students were asked about specific positions that they hoped to obtain in the journalism industry.

Table 3 outlines the same scoring and ranking strategy as Table 2. Students were offered a list of 15 different journalism fields and asked to order them based on the priority of what arenas they aspired to enter when becoming professional journalists. Again, students ranked more than one option as a first choice. The top three choices were extracted, scored, and rank-ordered for this study. Remarkably, a majority of students chose jobs that were camera oriented. Becoming a TV news anchor ranked number 1 among participants. TV

presenters and TV reporters each ranked at 4 and 6, respectively. Becoming a print journalist ranked at number 2 as well as a social media journalist which ranked at number 3. Becoming a news editor, working in public relations (PR) and Advertising, and entering the world of radio were ordered among the last choices for journalism and digital media students. Instead, becoming a multimedia journalist and political analyst held higher popularity, ranking before them all at number 7 and 8, respectively.

Table 3: ***Work Aspirations Journalism Students Have***

Work Aspirations	First choice	Second choice	Third choice	Weight score	Ranking
TV News Anchor	14	5	3	55	**1**
Print Journalist	10	7	3	47	**2**
Social Media Journalist	11	5	2	45	**3**
TV Presenter	7	9	6	45	**4**
Photographer/ /Videographer	9	4	2	37	**5**
TV Reporter	4	8	4	32	**6**
Multimedia Journalist	8	2	4	24	**7**
Political Analyst	5	3	3	24	**8**
News Editor	2	3	9	21	**9**
Radio Reporter	2	3	5	17	**10**
Producer	3	2	3	16	**11**
Public Relations	4	1	1	15	**12**
Advertising	2	3	2	14	**13**
Radio News Anchor	1	2	5	12	**14**
Radio Presenter	3	0	3	6	**15**

DISCUSSION AND CONCLUSION

The field of journalism is constantly evolving with new terms, conditions, and routines emerging regularly. The notion of what constitutes a journalist in terms of skills, characteristics, education, and work positions has historically uncovered profound differences between scholars, societal critics, and journalists (Gardeström, 2016; Willig,

2016). This research study took place to add the perception of students to this ongoing discussion. It examined the attitudes, beliefs, and aspirations of current journalism and digital media students at Al Maaref University. The research sought to explore how students in one of the more recent journalism programs in Lebanon defined journalism and how they prioritize the education they receive. Then a complete comparison took place regarding their career goals.

→ For the first research question 'RQ1', students were asked about what characteristics they believed were necessary for working in journalism. A promising trend was observed; many of the journalism and digital media students believed that traditional journalism skills held a higher importance for journalists than new digital journalism skills. This included the belief that journalists should obtain the characteristics of having high-quality communication skills, becoming truth-seekers, having confidence, working accurately, developing good reading and writing skills, and having knowledge of current events. The traditional characteristics declared 'very important' among students precisely follow suit with theories of journalism as a service, journalism as a profession, and journalism as a practice (Zelizer, 2005). Moreover, they prove scholars' notion that before becoming a specialized journalist, one must first become a good traditional journalist (Bull, 2010). This student mindset is also encouraging as a result of the realities of the Lebanese media landscape. "Over 78% of Lebanon's local media outlets are politically affiliated" (Media Ownership Monitor Lebanon, 2018, para 1). This, at times, puts objectivity, accuracy, truthfulness, and clear communication at risk. The fact that students are noticing such characteristics as vital gives hope they may be able to make a change when entering the work field. Alongside traditional journalism skills, students did not neglect the importance of new digital media skills. They expressed the importance of gaining skills, especially in multimedia, investigation, computer, and storytelling. All of these are closely suited to the skills deemed necessary for a digital media journalist at the BBC (Marshall, 2013).

→ Research question two (RQ2) asked journalism and digital media students to prioritize what educational background journalists should acquire based on a list of subjects. Results show that there were similarities and differences between the characteristics student perceived as essential in a journalist and the areas of study journalists should be educated in. Ethics and law were ranked the number one priority. Communication, reporting, and writing were among the second and third priorities for journalism training, echoing the skills students mentioned earlier for a traditional journalist. Interestingly, multimedia and web design ranked low in subject importance, even though these students are enrolled in a program with an emphasis on digital media. Moreover, it was inconsistent with the high levels of importance they offered to multimedia as a journalism characteristic. These inconsistencies demonstrate that despite students' desire to enter the digital media field, they still consider conventional and long-established areas of journalism to be a priority. Students are aware of the technological advancements affecting the journalism sector and are mindful that new characteristics are needed. Yet when asked to prioritize areas they should study, essential journalism topics remain the most significant. This echoes the curriculum offered in the Faculty of Mass Communication and Fine Arts at Al Maaref University. Before enrolling in their major courses, journalism and digital media students are to undertake core courses in reporting, ethics, law, and communication giving a reflection that such courses remain fundamental. The results also reiterate previous studies

indicating that even online journalists believe such areas take precedence over new digital media subjects (Fahmy, 2008). Students are not necessarily ignoring new areas that have a high potential for their future, but instead are showcasing devotion towards basic and central journalism.

→ The third research question (RQ3) aimed to observe how students prioritized their work aspirations. Observations made showed a majority of journalism and digital media students entered the field with hopes of one day pursuing a career in front of the camera. Working in TV was among the top-ranked career choices. Print and social media journalism were also highly ranked. After a comparative analysis, a relationship was found between the areas of study that students ranked as highly necessary for their education and their work aspirations. For example, since a majority of students recorded wanting to work in TV, a majority also found announcing to be one of the more important subjects they should take during their university years. This is interesting because it contradicts the major students are enrolled in. In other words, students are hoping to enter work fields using the general courses required of them to take as media students, not major courses related to journalism and digital media. The students' desire to work in front of the camera can be the result of audience perception. In a study on six different countries, theorists Nic Newman and Craig Roberston found that people pay the most attention to television news anchors rather than journalists from digital or print outlets (Newman and Robertson, 2022). This power of TV that overpasses social media has helped make journalists who work on popular media networks celebrities (Ibid). The yearning to be well-known personalities in society and gather prominence and respect from audience members could be the result of this trend to enter careers in TV. Moreover, the type of campaigning the university uses to recruit students could affect student opinion on job opportunities. Following a thorough review of Al Maaref University's website, it became evident that there is a heavy promotion of the idea of TV productions and videos when it came to identifying the Faculty of Mass Communication and Fine Arts. Pages on the website specifically detailing the undergraduate programs, what students will learn, and what areas of study are offered were all accompanied by photos of students working with or in front of cameras or visiting TV news stations. Moreover, a promotional video introducing the five innovative faculties at Al Maaref University presented the Faculty of Mass Communication and Fine Arts in a TV studio with lighting and professional cameras (Al Maaref University, 2019, 0:15). Another promotional video discussing the quality of education at Al Maaref University included scenes strictly of students engaging in practices relating to presenters and news anchors (Al Maaref University, 2020, 1:55). Such work aims to identify the faculty and therefore may affect student perception on popular career options despite their majors. There is no emphasis in these campaigns regarding careers in digital media or social media. Moreover, the high number of students who expressed their desire to work in print relates to the importance of learning reporting and writing. Another relationship is in the world of multimedia. A lower number of students had an interest in practicing a job in the world of multimedia, similar to the low ranking of that subject as an area of study. Another surprising trend was the inconsistency in student perception regarding social media. It ranked low in priority as an area of study, yet third as a career choice. As mentioned earlier, this means students believe core journalism practices such as communication, reading, writing, and ethics remain essential even if they have the desire to enter workplaces in need of qualities relating to social media. This may be because students are not introduced to working with social media until they begin their major courses.

Instead, students are deeply instilled in the courses they prioritized for the first half of their educational experience. Students are still aware that social media is a necessity in the market hoping to enter that specific field. Although many students still have priority to enter TV-oriented jobs social media is secondary to their aspirations.

↓ ↓ ↓

The above analysis all transpired using the theoretical frameworks of the study. Students offered their independent understanding of journalism. Embracing the skills of traditional journalism adds hope they will be able to better the oftentimes politicized journalism field in Lebanon that risks some of the traditional journalism characteristics. As mentioned earlier, the politics in Lebanese media has deeply affected its objectivity, accuracy, and truthfulness. Since students view these variables as critical for their work as journalists, this gives the expectation that they will implement these once they enter the market. The concept of habitus (Benson and Neveu, 2006) was considered when choosing the sample of journalism and digital media students and comparing their work aspirations with the areas of study they prioritized. In addition, *Doxa* was used to view students' perceptions of practices not explicitly given in the classroom. For example, students are not given direct courses on how to become truth-seekers or gain confidence, yet still consider these to be important characteristics of a journalist. Instead, such topics are usually included in in-class exercises and discussions, especially when first familiarizing students with field journalism. The *normalization process theory* transpired through the analysis of the normalized characteristics and perceptions of study areas and work goals. *Coherence* or sense-making in work practices is a key element in the theory (Gillespie et al., 2018). Students showed this harmony in their overall majority agreement on the skills and characteristics of a journalist. *Cognitive participation* or people engagement (Gillespie *et* al., 2018) is another component. This was shown through the translation of traditional skills vitalized and the areas of study prioritized.

Following these observations, a contribution can be made. It is clear that journalism and digital media students have a great understanding and notions of traditional journalism but need extensive awareness, knowledge, and guidance in their perception of digital journalism. As journalism and digital media students, they should at least give priority to social media and multimedia courses over announcing and presenting. However, since their goal is to work in front of the camera, their priorities do not fit with the specificity of the major. Journalism is currently undergoing a radical change, and those in the field as well as those wanting to enter the field must adjust to all its forms. Journalists today no longer choose between print, radio, TV, and the web; they must do it all (Bull, 2010). Journalism and digital media students must recognize that whether they want to pursue work in front of the camera or print, they still need a wide range of knowledge from the new form of journalism and vice versa. Those hoping to work as multimedia or social media journalists need deeply engrained traditional journalism skills first. A skilled journalist today is someone who can use all the modern tools available in print, online, audio, video, photo, and social media (Bull, 2010). One's work aspirations should not be related to the priority of study areas journalists to be should be obtaining.

RECOMMENDATIONS

Universities need to follow suit with Al Maaref University's identification and prioritization of essential journalism skills despite emerging technologies and platforms that become available in the future. Educational institutions should still introduce students to new evolutions of journalism to obtain digital literacy, however, without lessening the presence of traditional skills, especially as core material. Moreover, Al Maaref University, as well as others, should further describe to students how to properly implement the skills of accuracy, truth, reading, writing, communication, and ethics in local media to increase the quality of work in a rather political media landscape. This paper also recommends that students learn about the diverse job opportunities awaiting them following graduation from the journalism and digital media programs. With heavy campaigning on TV presentations and production to identify the media faculty at Al Maaref University there is a strong journalism students' desire for journalism students to work in front of the camera. Instead, through their campaigning, class discussions, and field visits, the university should stress further that such a program qualifies students to work in several different arenas. Strong emphasis should be put on the importance of these diverse career options so students become aware that TV is not the only sophisticated option.

LIMITATIONS

Gathering responses from students was a hard task at times. Despite sending various emails, WhatsApp messages, and even communicating privately with all students enrolled in journalism and digital media program at Al Maaref University, their willingness to participate in the survey was rather challenging. Upon reflection, this is not surprising. A majority of undergraduate students usually do not like to participate in research because they say they do not have time, are not interested, and would rather spend their time with more applied work (Stout, 2018).

FUTURE RESEARCH

This study offered insights into the concept of journalism as seen through the eyes of journalism and digital media students at Al Maaref University specifically. Future research should continue discussing this notion of modern journalism according to students enrolled in other universities across the country. This way a further examination could occur regarding relationships between student perception, geography, academic level, and even political orientation. Future research could also include the perception of fresh graduates who have entered the field and obtained primary experience. This means a continued investigation of how entry-level digital media journalists view journalism following their admission to the market and then comparing it to students currently enrolled.

Note: *This paper has been published in Žurnalistikos tyrimai, 2022. 16, pp. 108-137.*

References

Alves, R.C. (2009) The Impact of Digital Technology on Journalism and Democracy in Latin America. A Reflection within the Historical Context of Social Networks. Available at: https://www.issuelab.org/resources/9785/9785.pdf (Accessed: 3 November 2022).

Al Maaref University. (2020, June 17) We aim to put quality education within the reach of every student. Available at: https://www.youtube.com/watch?v=Oi-4Y1rxtFU (Accessed: 20 November 2022).

Al Maaref University. (2019, September 19) Our Five Innovative Faculties. Available at: https://www.youtube.com/watch?v=AS9fXCPEW0g (Accessed: 20 November 2022).

American Press Institute. (2019, November 15) What is journalism? Definition and meaning of the craft. Available at: https://www.americanpressinstitute.org/journalism-essentials/what-is-journalism/ (Accessed: 3 November 2022).

Bashir, E., Hejase, H.J., Danash, K., Fayyad-Kazan, H. and Hejase, A.J. (2022) 'An Assessment of Students' Preferences Using Social Media Platforms on Their Selection of Private Universities in Lebanon', Journal of Business Theory and Practice, 10(3), pp. 1-39. doi:10.22158/jbtp.v10n3p1; URL: http://dx.doi.org/10.22158/jbtp.v10n3p1

Benson, R. (2006) 'News Media as a "Journalistic Field": What Bourdieu Adds to New Institutionalism, and Vice Versa', Political Communication, 23(2), pp. 187–202. https://doi.org/10.1080/10584600600629802

Benson, R. and Neveu, E. (2005) 'Introduction: Field Theory as a Work in Progress', in R. Benson, & E. Neveu (Eds.), Bourdieu and the Journalistic Field (pp. 1-25). Polity Press.

Bor, S. E. (2014) 'Teaching Social Media Journalism', Journalism & Mass Communication Educator, 69(3), pp. 243–255. https://doi.org/10.1177/1077695814531767

Bull, A. (2016) Multimedia journalism: a practical guide. Abingdon, Oxon: Routledge.

Colon, Alan (2000) 'The multimedia newsroom', Columbia Journalism Review, 39(1), pp. 24-27

Davis, M. (2010) 'Why Journalism Is a Profession', in Christopher Meyers (ed.), Journalism Ethics: A Philosophical Approach, PRAC PROF ETHIC (New York, 2010; online edn, Oxford Academic, 1 May 2010). Available at: https://doi.org/10.1093/acprof:oso/9780195370805.003.0006 (Accessed: 4 November 2022)

Deuze, M. and Witschge, T. (2017) 'Beyond journalism: Theorizing the transformation

Donsbach, W. (2013) 'Journalism as the new knowledge profession and consequences for journalism education', Journalism: Theory, Practice & Criticism, 15(6), pp. 661–677. https://doi.org/10.1177/1464884913491347

Fahmy, S. (2008) 'How online journalists rank the importance of news skills', Newspaper Research Journal, 29(2), pp. 23–39. https://doi.org/10.1177/073953290802900203

Gardeström, E. (2016) 'Educating Journalists: The Who, When, How, and Why of Early Journalism Programmes in the Nordic Countries', in Jan F. Hovden, G. Nygren & H. Zilliacus-Tikkanen (Eds.). 'Becoming a Journalist: Journalism education in the Nordic countries' (pp. 25 - 37), Nordicom, University of Gothenburg, GÖTEBORG, Sweden.

Gillespie, B.M., Harbeck, E., Lavin, J., Gardiner, T., Withers, T.K. and Marshall, A.P. (2018) 'Using normalisation process theory to evaluate the implementation of a complex intervention to embed the surgical safety checklist', BMC Health Services Research, 18(1). https://doi.org/10.1186/s12913-018-2973-5

Guaglione, S. (2022, February 16) The BBC will double the digital news team in North America to grow the commercial side of the business. Available at: https://digiday.com/media/the-bbc-will-double-digital-news-team-in-north-america-to-grow-the-commercial-side-of-the-business%EF%BF%BC/ (Accessed: November 5, 2022).

Hanusch, F. and Hanitzsch, T. (2017) 'Comparing Journalistic Cultures Across Nations', Journalism Studies, 18(5), pp. 525-535, doi: 10.1080/1461670X.2017.1280229

Hardwick Research. (2022) Determining Sample Size. Hardwick Research Resources. Available at: https://www.hardwickresearch.com/resources/determining-sample-size/ (Accessed: 6 November 2022).

Harrison, J. (2019) 'Public Service Journalism', Oxford Research Encyclopedia of Communication. https://doi.org/10.1093/acrefore/9780190228613.013.867
Hashem, M., Sfeir, E., Hejase, H.J. and Hejase, A.J. (2022) 'Effect of Online Training on Employee Engagement during the COVID-19 Era', Asian Business Research, 7(5), pp. 10-40. https://doi.org/10.20849/abr.v7i5.1294

Hejase, A.J. and Hejase, H.J. (2013) Research Methods: A Practical Approach for Business Students (2nd edition). Philadelphia, PA, USA: Masadir Incorporated.

Hodali, D. (2019, July 5) Lebanon's Media Landscape - Struggling with Digitalization and Media Freedom. Deutsche Welle. Available at: https://www.dw.com/en/lebanons-media-landscape-struggling-with-digitalization-and-media-freedom/a-48635698 (Accessed: 4 November 2022)

Kovach, B. and Rosenstiel, T. (2001) The Elements of Journalism. New York: Three Rivers Press

Mari, Will. (2019) A short history of disruptive journalism technologies: 1960-1990. New York: Routledge.

Marshall, S. (2013, January 7) BBC News website editor: Five key digital journalism skills. Available at: https://www.journalism.co.uk/news/five-must-have-skills-if-you-want-to-work-for-the-bbc-news-website/s2/a551681/ (Accessed: 4 November 2022)

Media Ownership Monitor. (2018, December 5) Media. Available at: https://lebanon.mom-gmr.org/en/media/ (Accessed: 5 November 2022)

Murray, E., Treweek, S., Pope, C., MacFarlane, A., Ballini, L., Dowrick, C., Finch, T., Kennedy, A., Mair, F., O'Donnell, C., Ong, B. N., Rapley, T., Rogers, A. and May, C. (2010) 'Normalisation process theory: a framework for developing, evaluating and implementing complex interventions', BMC Medicine, 8(1). https://doi.org/10.1186/1741-7015-8-63

Newman, N. and Robertson, C. (2022, June 15) Which journalists do people pay the most attention to and why? A study of six countries. Available at: https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2022/which-journalists-do-people-pay-most-attention-and-why-study-six-countries (Accessed: 19 November 2022).

Perreault, G. P. and Ferrucci, P. (2020) 'What Is Digital Journalism? Defining the Practice and Role of the Digital Journalist', Digital Journalism, 8(10), pp. 1298–1316. https://doi.org/10.1080/21670811.2020.1848442

Sánchez Dromundo, R. (2007) 'Bourdieu's Field Theory, as a Theoretical Framework for Analyzing the Process of Degree Completion in Graduate Education', Revista Electronica de Investigacion Educativa, 9(1), pp. 1-21. Available at: https://redie.uabc.mx/redie/article/view/161/279 (Accessed: 5 November 2022).

SeamEdu Media School (2019) 10 essential skills you need to become a successful broadcast journalist. Available at: https://www.seamedu.com/blog/10-essential-skills-you-need-to-become-a-successful-broadcast-journalist/ (Accessed: 18 November 2022).

Silverman, F. (2022, October 20) Top multimedia journalism skills every reporter needs. Available at: https://www.nyfa.edu/student-resources/multimedia-journalism-skills/ (Accessed: 18 November 2022).

Singer, Jane. (2011) 'Journalism and digital technologies', in W. Lowrey & P. J. Gade (Eds.), Changing the news: the forces shaping journalism in uncertain times (pp. 213-229). New York: Routledge.

Stout, J. (2018) 'Understanding why many undergraduate students don't participate in Research', Computing Research News, 30(4). Available at: https://cra.org/crn/2018/04/understanding-why-most-undergraduate-students-dont-participate-in-research/#:~:text=The%20top%20three%20reasons%20included,of%20time%20to%20pursue%20research (Accessed: 20 November 2022).

Maryville University. (2021, March 15) The Rise of Digital Journalism: Past, Present, and Future. Available at: https://online.maryville.edu/blog/digital-journalism/ (Accessed: 3 November 2022).

UN. (2020) The new normal is digital. UN: Department of Economic and Social Affairs Available at: https://www.un.org/en/desa/new-normal-digital (Accessed: 6 November 2022).

UNESCO. (2022) Journalism is a public good: World trends in freedom of expression and media development; Global report 2021/2022. Available at: https://unesdoc.unesco.org/ark:/48223/pf0000380618.locale=en (Accessed: 3 November 2022).

Willig, I. (2016) 'We All Think the Same: Internships, Craft and Conservation', in J.F. Hovden, G. Nygren & H. Zilliacus-Tikkanen (Eds.). 'Becoming a Journalist: Journalism education in the Nordic countries' (pp. 25 - 37), Nordicom, University of Gothenburg, GÖTEBORG, Sweden.

Younis, J.A., Hejase, H.J., Dalal, H.R., Hejase, A.J., and Frimousse, S. (2022) 'Leaderships' Role in Managing Crisis in the Lebanese Health Sector: An Assessment of Influencing Factors', Research in Health Science, 7(3), pp. 54-97. doi:10.22158/rhs.v7n3p54 http://dx.doi.org/10.22158/rhs.v7n3p54

Zelizer, B (2005) 'Definitions of Journalism', in G. Overholser and K. H. Jamieson, (Eds.). Institutions of American Democracy: The Press (pp. 66-80). New York: Oxford University Press.

SMARTNEWS: AN AUTOMATIC APPROACH FOR EVENT DETECTION ON MEDIA PLATFORMS

[1]Hussein Hazimeh
Email: hussein.hazimeh@ul.edu.lb

Abstract: Social Media Platforms (SMPs) are currently the leading media data sources in the world; billions of people's electronic devices have adopted these SMPs for their use. The users ' accounts on these platforms generate massive amounts of data daily. Data have become an essential building block for many organizations of different domains. Recently, media organizations started using social media as a principal source to collect data, mainly news. Having recognized the importance of SMPs and data availability, media organizations are not using these data efficiently. Many media organizations still use and analyze internet data, especially from social media, manually, which leads to many disadvantages. This research proposes a more efficient and automated approach to collecting information from social media. Actually, this paper proposes an integrated framework that can extract data from multiple SMPs and merge them, store them, and finally allow media workers to extract fundamental data (events) automatically and smartly from social media. The proposed framework takes input from a query and finds the following information: top tweets, total likes and retweets on this query, user's identity, sentiment analysis, and finally, the prediction component that can classify if a particular item has classified an event or not. An advantage of this approach is to help media leaders control and track their performance in the media sector and maintain popularity on the internet. The proposed system has been validated on real datasets collected from different data sources. Findings show that this proposed system has remarkable accuracy, precision, and recall results, after evaluating different machine learning algorithms.•

Keywords: Social data analysis, digital media, social networks, machine learning, data integration.

INTRODUCTION

Currently, the data in the world have two essential features: Being generated rapidly and being collected from multiple sources. The effect of these features has contributed remarkably to the emergence of the Big data era defining multiple proprietary features (Ghasemaghaei, 2017). Firstly, the key feature of big data is the scale characterized by exponential growth. To handle that growth; new data storage platforms have emerged while other platforms are under development and testing. The second feature of big data today is the lack of structure. In this context, many challenges must be addressed and assessed otherwise; data will not be beneficial for computer systems. The third feature is sparsity since the current existence of technological devices and applications like smartphones, laptops, wireless sensors, network architecture, the internet of things, smart cities, and more real systems generate a large amount of data. Data have no unique source, yet different sources. The last feature of big data is speed, i.e., data are

*1 Lecturer, Faculty of Science, Lebanese University, Beirut, Lebanon

generated rapidly. Therefore, raising the need and necessity for new organizations that work primarily with data to adopt modern adaptation policies to update their technological infrastructure and increase financial investment in technology, among others, to remain successful.

In this paper, we highlight our research on a fundamental Big data source which is social media. According to Power and Phillips-Wren (2011), “Social media (SM) and Social Media Platforms (SMPs) have emerged because of web 2.0 (participatory web) innovations to enhance human communication and create dynamic and interactive dialogues” (p. 251). Alalawneh, Al-Omar, and Alkhatib (2022) add that SMPs are global and are known for their permanent access at any time and anywhere. Thomsen Trampedach (2022) reports that “Around six (6) billion user accounts and two (2) billion active users can be attributed to only 10 Social Media Platforms (SMPs)” (para 1). These users generate timely content across multiple platforms. The content is diverse such as text, images, and videos. In addition to the common social media users, most organizations in the world create powerful and public profiles on social media to reach their targeted communities (Bashir et al., 2022). Major media companies transformed into social media companies, such as newspapers, TV, shows, and more. In this context, most of the media audience in the world follows the latest news and updates through their social media accounts (Schwaiger, Vogler, and Eisenegger, 2022). Kemp (2022, July 21) posits that “The Reuters Institute for the Study of Journalism (RISJ) published the 2022 edition of its Digital News Report. It asserts that when it comes to news channels, people are now two and a half times as likely to turn to social media for news as they are to turn to physical newspapers and magazines” (para 44). Despite the noteworthiness content of media pages on social media, sometimes users might not be interested in the content published by these pages (Schwaiger et al., 2022). For instance, take a user who follows a page on Facebook that publishes 20 posts daily on different subjects. This user is interested in five (5) subjects only. Such an incident proves that there is no customization. Until now, social media channels do not offer customization features. Emphasizing this fact, Ghasemaghaei (2017) posits that certain users can only unfollow a particular page; they cannot customize the preferred news they would be interested in.

There are many research papers published on finding events in social media (e.g., see Chen, Xu, and Mao, 2019; Halimi and Ayday, 2020; Abousaleh, Cheng, Yu, and Tsao, 2021), but only a few of them focus on the problem of content selection of media events. Based on the above papers, among others, and the scarcity of published resources, in this paper, we address the problem of social media news event detection in an automated and smarter manner. So, the aim is to create a novel system to address the problem. The proposed system deployed several matching and machine-learning algorithms to enhance its accuracy.

The rest of this paper is structured as follows: Section 2 lists several related research papers, followed by section 3 which introduces and explains the proposed system contribution. Section 4 addresses the experimental results and evaluation. Finally, section 5 concludes this work and discusses future directions.

LITERATURE REVIEW

The recent literature in the context of social media analytics is comprehensive. The focus of this study is to analyze media content on social media platforms. In particular, the related work is divided into two parts: (1) Research on social media content merging and (2) research on social media page popularity prediction.

- **Social media content merging**

Morales, Gionis, & Sozio (2011) proposed a big-data-based solution to investigate and address the problem of social media content matching. They proposed three algorithms and compared them to assess the effectiveness of their matching architecture. Their experiments have been conducted on Flickr and Yahoo! and reached good results in terms of accuracy.

Agichtein, Castillo, & Donato (2008), introduced a framework for detecting high-quality content on social media, mainly Yahoo! They were able to separate high-quality content from spam and fake comments written as user reviews.

On the other hand, some research papers focused on the problem of matching the content of user profiles to link these profiles with each other and merge them. In recent research, in this context, Halimi and Ayday (2020) worked on matching user profiles on social media platforms, specifically Twitter, Foursquare, Google Plus, Twitter, and Flickr. The authors relied mainly on public attributes and match them using a deep learning model, and their results have shown high accuracy compared to others. Other researches have a broader context and cover the problem of matching entities, where an entity could be a user profile, a page, or a post (Peled, 2013).

Despite the broad research done in the domain of matching content on social media, most of this research has been conducted on user profiles; and there are no up-to-date approaches proposed to match user-generated content on social media platforms.

- **Social media page popularity prediction**

The research published in this domain is notable so far. Many papers have tackled the issue of popularity prediction on social media in different facets, such as images, videos, likes, shares, and more. Chen, Kong, Xu, & Mao (2019) worked on the popularity prediction task leveraging deep learning solutions. They consider two main issues to address, the noisy content of social media posts and the adaptation of deep learning algorithms. Gelli, Uricchio, Bertini, et al. (2015) proposed a system to predict the popularity of social media images by using sentiment analysis and features related to the context of the image. A similar more recent research by Moniz and Torgo (2019) addressed the problem of the popularity prediction of photos on Flickr. The authors utilized multiple deep-learning models to achieve better performance results. In addition to the contributions to this research subject; some surveys have reviewed this domain. Abousaleh, Cheng, Yu, & Tsao (2021) have reviewed dozens of research papers on popularity prediction considering multiple social media platforms. Also, some papers have addressed the problem of event detection in specified languages

such as Arabic (Daoud & Daoud, 2020; Rafea & GabAllah, 2018), Chinese (Almerekhi, Hasanain, & Elsayed, 2016; Wang, Guo, & Wang, 2021), and more.
In conclusion, the related work provided in this section is suitable and beneficial for the research community. However, in the context of content matching, the contributions are still minimalistic. Accordingly, the authors of this paper propose a content-based merging approach applied to social media, particularly Facebook, Twitter, and Instagram. Furthermore, the proposed system contains a prediction component that can predict the popularity of each social media post.

MATERIALS AND METHOD

- **SmartNews: Proposed System architecture**

In this section, we illustrate our system architecture. Mainly, we divide this architecture into four-ordered components. The first component of SmartNews is to select and describe the media sources, i.e., websites, blogs, and social media platforms. The second step constitutes scrapping the data from these resources to get them all in a single unified dataset. This dataset will be processed and analyzed. After the dataset is obtained we propose some similarity measures applied to the data to capture similar contents. The third step involves a classification task to classify the media content in our dataset. Then, we represent and store our collected events and news inside a knowledge graph. Finally, end users will be notified about the data generated by the system. The agents inside this system architecture represent the media applications or websites used by end-users.

→ The key objective of this architecture is to extract and classify selected topics to be received by media users. Each of the phases inside the architecture is described in Figure 1.

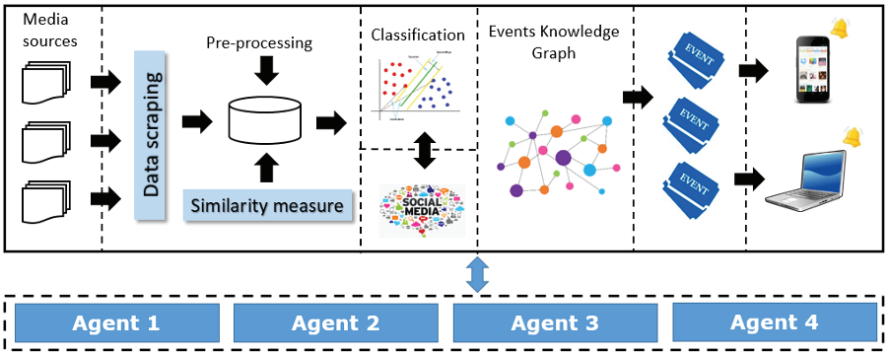

Figure 1. ***Proposed SmartNews architecture***

PROCESS DESCRIPTION

- **Media sources**

A media source is any media page on a social media platform that generates regular

and consistent content to be received by end users. For instance, The New York Times newspaper. The selection of these sources is dynamic, where we can add or remove sources as needed.

- **Data Scraping**

The data available inside every media source is digital, yet it needs to be extracted in an automated mechanism and a high-performance manner. This objective is realized using a data scraper technique called Selenium (https://www.selenium.dev/). Selenium is an efficient software tool that supports multi-language development intending to scrap content from websites. It provides libraries to enable the scraping of website content smartly and accurately. The main important features to extract from these pages are listed in Table 1.

Table 1: ***The description of all features extracted from every social media page***

Feature	Description
Content	The textual content of the item
Reactions count	The total number of reactions
Comments	The total number of comments
Time window	The average delay between all comments on a single item (post)

The time window is calculated using the following formula:

$$D = \frac{\sum_{i=1}^{n} t(p_{i+1}) - t(p_i)}{n}$$

Where:

→ n: *Is the total number of comments,*

→ t(Pi+1) and t(Pi): *These are functions that return the time differences between two comments, and D: Is the average of all time differences between all comments divided by the total number of comments.*

After scraping the content using Selenium from the pre-defined media sources, we apply several text pre-processing steps to enhance the quality of the data and raise its performance once analyzed. The main steps followed in the pre-processing are: stop word removal, stemming, and tokenization.

Once the data is cleaned and ready for processing, we store it inside a repository, specifically inside the MySQL database software platform. Then we utilize some similar functions applied to this data as an advanced prep-processing step. For instance, we utilize the Cosine Similarity to compute the similarity between two texts. In this phase, we compare comments that are the same but written by different users. For instance, if two comments are the same but have two different profile names, one of them is deleted, and the other is kept.

Classification

After the data have been prepared and turned into high-quality data. In addition, we have stored such data inside a repository. We prepare our dataset comprising the features described in Table 1 and apply some machine learning supervised algorithms to classify whether the post is an event. The machine learning algorithms utilized in this process are SVM, Decision Tree, Random Forest, and Naïve Bayes.

The dataset used in the classification is composed of four features and the class. The features are shown in Table 1. This classification problem is binary, and the two classes are 'event' and 'not event'.

Knowledge Graph

The extracted events by the machine learning algorithms are stored inside a knowledge graph. A knowledge graph is a knowledge store graph that represents real-world entities inside a graph-based structure. The advantage of this representation is to enhance the semantical aspect of data and enable high-speed retrieval. For instance, the user (agents in our architecture) can extract customized events from the knowledge graph along with their details.

Experiments and evaluation

In this section, we present the results of our system. In addition, we show the facts about the data used for analysis and results.

The dataset is collected using Selenium (see the architecture). It is composed of 500 instances, and each instance is classified manually as an event or not an event item.

Four main media data sources were involved in the analysis. Although, we can include more or different sources as well without any problems or updates on the system. Table 2 depicts for each source the number of items (posts) that participated in the analysis.

Table 2: ***Data source sizes***

Data source*	Size
S1	450
S2	400
S3	430
S4	440
***S: digital media source**	

Figure 2. ***The data saved in MongoDB***

Figure 2 illustrates the data extracted from Facebook as stored and represented inside MongoDB, the repository used to comprise the data used in our analysis.

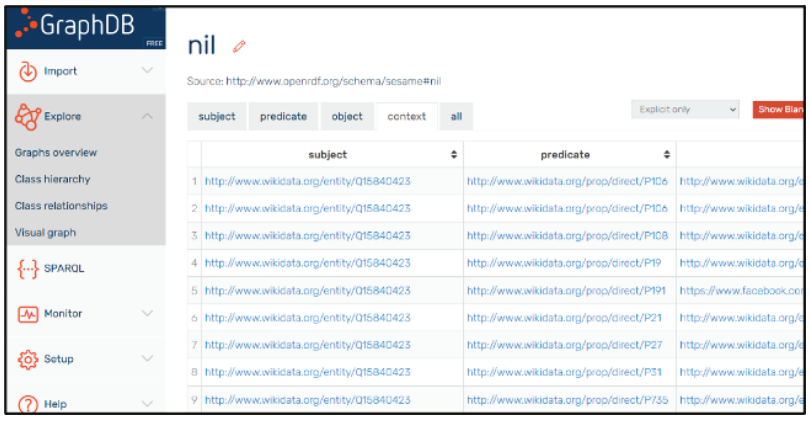

Figure 3. ***The data saved as a knowledge graph triples inside GraphDB***

Figure 3 shows the same data stored in MongoDB converted to semantic relations and stored as a knowledge graph inside the GraphDB repository.

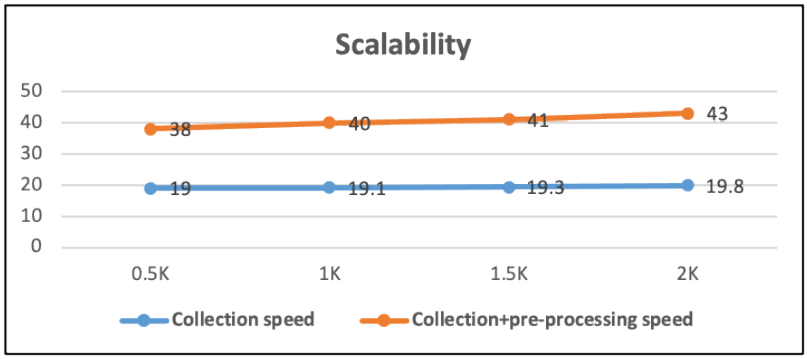

Figure 4. ***The scalability results of the proposed system***

Figure 4 illustrates the scalability results of the proposed system. We were able to maintain a stable speed regardless of the number of posts analyzed increased. The scalability is an important evaluation metric in our system because the number of posts is arbitrary, and we have to expect a high potential increase in the number of posts, hence designing a highly scalable system is necessary.

Table 3: The performance evaluation of pages compared to classifiers

Evaluation metric	Classification algorithm	Page 1	Page 2	Page 3	Page 4
Accuracy	SVM	93	94	92	95
	Decision Tree	89	88	91	93
	Random Forest	95	94	90	91
	Naïve Bayes	93	93	90	91
Precision	SVM	90	91	91	94
	Decision Tree	93	90	91	93
	Random Forest	94	92	95	94
	Naïve Bayes	94	90	91	93

Evaluation metric	Classification algorithm	Page 1	Page 2	Page 3	Page 4
Recall	SVM	93	90	88	94
	Decision Tree	88	91	88	91
	Random Forest	94	90	94	90
	Naïve Bayes	93	90	93	90
F1-measure	SVM	93	94	92	95
	Decision Tree	92	95	92	95
	Random Forest	91	93	91	93
	Naïve Bayes	90	91	90	91

The results presented in Table 3 show the comparison of the four classification algorithms' performance on four social media pages. In particular, we used accuracy, precision, recall, and f-measure.

Table 4: ***The average score of each evaluation metric***

Evaluation metric	Classification algorithm	Average score
Accuracy	SVM	92.4
Precision	Decision Tree	91.2
Recall	Random Forest	92.5
f-measure	Naïve classifier	91.3

Based on the data presented in Table 4, we conclude that all classification algorithms have roughly the same performance. However, SVM has the highest performance in terms of accuracy compared to other algorithms. However, the Decision Tree has the highest precision, and the Random Forest has the highest recall compared to other algorithms. Finally, the Naïve classifier has the highest f-measure compared to the other algorithms. Table 4 shows the average score per each metric applied to each algorithm.

CONCLUSION

To benchmark the evaluation results presented in Table 3, we conduct our experiments on three events: covid-19, protests, and currency changes that happened in 2021 in Lebanon. After we get the results from our system, we compare its results with the real events that we have selected.

In conclusion, our proposed system can extract and classify events from news in high-score evaluation results. The results of this system validate that it can be utilized by any media organization to find important events on social media pages.

In this research paper, we illustrated the importance of social media data's role in facilitating and increasing the performance of media companies. Specifically, we address the problem of social media event detection from multiple social media platforms. Our system searches for interesting content on these platforms and retrieves the highest important ones (events). To classify the event from non-event content, we proposed a machine learning-based solution that performs perfectly on this task. In addition to the news retrieval component, our system is composed of a prediction component that can predict the event from non-event of the retrieved posts.

Large-scale media organizations can operate the proposed system in this research. These organizations can automate the task of news/post search and retrieval. Therefore, reducing the effort and time spent on these tasks while doing them manually. Moreover, it can increase the financial outcome by decreasing the capacity of human resources required to do these tasks.

Note: *This paper has been published in Žurnalistikos tyrimai, 2022. 16, pp. 138-151.*

REFERENCES

Abousaleh, F., Cheng, WH., Yu, NH. and Tsao, Y. (2021) 'Multimodal Deep Learning Framework for Image Popularity Prediction on Social Media,' *IEEE Trans.* Cogn. *Dev. Syst.* vol. 13, no. 3, pp. 679-692

Anisa, H., Ayday, E. (2020) 'Profile Matching Across Online Social Networks. Information and Communications Security,' *Proceedings of the 22nd International Conference, ICICS 2020*, Copenhagen, Denmark, August 24-26, 2020, pp. 54-70

Agichtein, E., Castillo, C., Donato, D., Gionis, A. and Mishne, G. (2008) 'Finding high-quality content in social media,' *WSDM*, pp. 183–194

Alalawneh, A.A., Al-Omar, S.Y.S. and Alkhatib, S. (2022) 'The Complexity of Interaction between Social Media Platforms and Organizational Performance,' *J. Open Innov. Technol. Mark. Complex.*, vol. 8, p169. https:// doi.org/10.3390/joitmc8040169

Almerekhi, H., Hasanain, M. and Elsayed, T. (2016) 'EveTAR: A New Test Collection for Event Detection in Arabic Tweets,' SIGIR 2016: 689-692

Bashir, E., Hejase, H.J., Danash, K., Fayyad-Kazan, H. and Hejase, A.J. (2022) 'An Assessment of Students' Preferences Using Social Media Platforms on Their Selection of Private Universities in Lebanon,' *Journal of Business Theory and Practice*, 10(3), pp1-39. DOI:10.22158/jbtp.v10n3p1; URL: http://dx.doi.org/10.22158/jbtp.v10n3p1

Chen, G., Kong, Q., Xu, N. and Mao, W. (2019) 'A neural popularity prediction model for social media content,' *Neurocomputing*, 333, pp. 221-230.

Cui, Y. and Wei, Y. (2021) 'Chinese Text Event Detection Technology Based on Improved Neural Network,' FSDM, 2021, pp. 436-442.

Daoud, M. and Daoud, D. (2020) *'Sentimental event detection from Arabic tweets,'* Int. J. Bus. Intell. Data Min. vol. 17, no. 4, pp. 471-492

Gelli, F., Uricchio, T., Bertini, M., Del Bimbo, A. and Chang, SF. (2015) 'Image Popularity Prediction in Social Media Using Sentiment and Context Features,' *ACM multimedia*, pp. 907-910.

Ghasemaghaei, M. (2017) 'The Effects of Operational and Cognitive Compatibilities on the Big Data Analytics Usage: Firm Distinctive Value Creation,' *AMCIS 2017*

Kemp, S. (2022, July 21) *'Digital 2022: July Global Statshot Report,'* Data Portal, [Online]. Available at: https://datareportal.com/reports/digital-2022-july-global-statshot (Accessed: 22 November 2022).

Moniz, N. and Torgo, L. (2019) 'A review on web content popularity prediction. Issues and open challenges,' *Online Soc. Networks Media*, vol. 12, pp. 1-20

Morales, G.D-F., Gionis, A. and Sozio, M. (2011) 'Social Content Matching in MapReduce,' Proc. *VLDB Endow*, vol. 4, no. 7, pp. 460-469.

Peled, O., Fire, M., Rokach, L. and Elovici, Y. (2013) 'Entity Matching in Online Social Networks. International Conference on Social Computing,' *SocialCom 2013*, SocialCom/PASSAT/BigData/EconCom/BioMedCom 2013, Washington, DC, USA, 8-14 September, pp. 339-344

Power, D.J. and Phillips-Wren, G. (2011) 'Impact of Social Media and Web 2.0 on Decision-Making,' *J. Decis*. Syst., 20, pp249–261. https://doi.org/10.3166/jds.20.249-261

Rafea, A. and GabAllah, N. (2018) 'Topic Detection Approaches in Identifying Topics and Events from Arabic Corpora'. *ACLING 2018*, 270-277

Schwaiger, L., Vogler, D. and Eisenegger, M. (2022) 'Change in News Access, Change in Expectations? How Young Social Media Users in Switzerland Evaluate the Functions and Quality of News,' *The International Journal of Press/Politics*, vol. 27, no. 3, pp. 609–628. https://doi.org/10.1177/19401612211072787

Thomsen Trampedach. (2022) '*Social Media Monitoring*', [Online]. Available at: https://www.thomsentrampedach.com/online-brand-protection/social-media-monitoring/ (Accessed 21 November 2022).

Wang, Z., Guo, Y. and Wang, J (2021) 'Empower Chinese event detection with improved atrous convolution neural networks,' *Neural Comput. Appl*., vol. 33, no. 11, pp. 5805-5820.

DIGITAL TRANSFORMATION OF MEDIA COMPANIES IN LEBANON FROM TRADITIONAL TO MULTIPLATFORM PRODUCTION: AN ASSESSMENT OF LEBANESE JOURNALISTS' ADAPTATION TO THE NEW DIGITAL ERA

[1]Ali El Takach, [2]Farah Nassour, [3]Hussin Jose Hejase
Email: ali.takach@mu.edu.lb

Abstract: This research aims to assess Lebanese media organizations' and journalists' readiness and adaptation to the new digital era requirements. Journalism has always been affected by technology. Adopting new information and communications technology has obliged changes in journalistic practices and led to new business models and journalistic practices. For example, implementing Newsroom Computer Systems (NRCs) in media companies has led to radical changes in the departments of these organizations, and in particular in the newsrooms. The journalists in newsrooms are the human factor that is considered an essential element in this change. It touched on the depths of productivity and the mode of journalistic work. In the new era of media convergence, journalists are called upon to follow this trend (modern journalism) and become more versatile, where their work becomes streamlined and redesigned. The new and more flexible journalistic practices emerging in newspaper and television production, in combination with online journalism, have a profound effect on the role of journalists and their competencies requirements. Having multi competencies is explained by mastering the basic rules (writing, etc.) in the journalism profession and digital knowledge related to this profession (visualizing data, using the digital tools necessary for work, etc..).
This study uses quantitative, descriptive, and deductive approaches supported by a structured survey questionnaire. The sample in this research constituted 96 respondent journalists selected conveniently. Data were analyzed descriptively and reported in charts for clarity. Results show that from an overall analysis, Lebanese media organizations and journalists are moderately prepared to deal with the digital era requirements. Most of the research variables scored between 40 to 50% in terms of preparedness and functionality during the digital transformation era. The research implications show that in Lebanon, as elsewhere in the media industry, the human factor's digital culture plays an essential role in the advancement of the companies towards the digital environment. In the Lebanese organizations' case, the economic and monetary crisis factors besides the human factor, have affected the technical implementation and the digital transformation of the media outlets. In this media landscape, the role of academic institutions (i.e., universities and research centers) must be proactive to define the new set of digital and journalistic skills required and needed to enhance the transformation towards the digital multitasking and cross-platform profiles needed to adopt the digital mindset effectively and efficiently.

Keywords: Journalism, Digital era, Digital tools, Multi-skills, Digitization, Cross-platform production, Media industry.

INTRODUCTION

Reaching digital transformation needs three phases "digitization, digitalization, and digital transformation" (Verhoef, Broekhuizen, Bart, et al., 2021, p. 891). The first "is the encoding of analog information into a digital," the second "describes how IT or digital technologies can be used to alter existing business processes," and the third "is the most

[1]Dean, Faculty of Mass Communication and Fine Arts, Al Maaref University, Beirut, Lebanon
[1]Associate Professor, Faculty of Information, Lebanese University, Beirut, Lebanon
[2]Journalist, An-Nahar Newspaper, Beirut, Lebanon
[3]Consultant to the President, Professor of Business Administration, Al Maaref University, Beirut, Lebanon

pervasive phase, and describes a company-wide change that leads to the development of new business models format" (p. 891). Also, digitization brought changes to the process of producing media content. Doyle (2015) posits that media organizations have migrated from an individual sector (in linear distribution) to a multi-platform delivery framework where such organizations have become content providers on digital multi-platforms. The resultant impact leads to an abundance of content and an increase in productivity potential in the media industry, deploying cross-platform content to an audience that is more personalized and interactive (ibid).
Adopting the transition to cross-platform distribution has not been similar across media organizations (Santos, Medeiros, Lenzi, and Ghinea, 2019). This transition differed from one type of medium to another and obviously from one country to another (Manyika, Lund, Bughin, et al., 2016; Santos et al., 2019).

In Lebanon, as everywhere in the world, the media are witnessing a crisis of adaptation to the digital environment. Such was the case of the newspaper "As-Safir" which failed to evolve and disappeared. The same happened to "one of the oldest press houses in the country, Dar Assayad," which unexpectedly announced the interruption of all its activities (Khalifeh, 2018a, b, para 3). Others followed suit; the newspaper "al-Anwar," and the daily "al-Hayat" newspaper that has closed its office in Beirut (ibid, para 3,4). Media companies (newspapers and television channels) face the challenge of positioning and restructuring. This challenge arose as a result of economic issues essentially linked: on the one hand, to the inevitable transformation to digital, and on the other hand, to the drop in advertising expenditure in favor of the digital advertising market (Palmer, & Koenig-Lewis, 2009; Khalifeh, 2018a, b). In addition, the digital segment experienced significant growth and has attracted 20 to 25% of the advertising budgets (Commerce du Levant, 2017). The Web will continue to gain market share to the detriment of television, but above all, the written press, whose budget dropped by 30 to 40% in 2017 (Commerce du Levant, 2017).

In this context, some titles will no doubt disappear, and others will have to reinvent themselves to move into the digital age. The digital transformation imposes radical changes to the media (Vial, 2019), and newspapers need to start the digital transformation and inject the necessary capital (De la Boutetière, Montagner, and Reich, 2018).
Based on the above facts, it is essential to study how newspaper companies adapt to digital transformation. Moreover, presenting the case study in Lebanese media companies would be of great importance due to the absence of evaluative studies within these companies in Lebanon.

This paper will present a clear picture concerning the scale of transformation in the press companies in Lebanon, as well as the journalist's adaptation to the new era since the profession of journalism and its ethics have changed with the digital transformation (Foucault, 2000; De la Boutetière, Montagner and Reich, 2018).

RESEARCH QUESTIONS

- **1.** To what extent the media outlets in Lebanon have digitally transformed?
- **2.** How did the Lebanese journalists adapt to the new digital era?

MATERIALS AND METHOD

This research uses a quantitative approach with a positivist philosophy. According to Hejase & Hejase (2013), "Positivism is when the researcher assumes the role of an objective analyst, is independent, and neither affects nor is affected by the subject of the research" (p. 77). Moreover, the study used a deductive approach in which data were collected using a structured questionnaire.

To answer the central questions of this paper, the researchers adopted the survey method. They distributed (by Google form) a questionnaire to Lebanese journalists working in different types of media organizations. The number of journalists who completed this questionnaire was 96. However, to assess the reliability of the sample size, and according to Hashem et al. (2022) and Younis et al. (2022), using Hardwick Research's (2022) published resources on the subject provides a statistically significant reliability figure. Table 2 shows that in the case of a general population of journalists in Lebanon of ~ 5,000, a sample of 96 journalists, and a confidence level of 95% [α=5%], an adequate reliability of 10% is obtained (see Table 1). The sample size varies between 75 and 100 though nearest to 100. Therefore, the resultant sample size of 96 would be about 10% ± 1% at the 95% confidence level. Such reliability is appropriate for this exploratory study.

Table 1: ***Sample reliability at 95% confidence***

Statistical Reliability at the 95% Confidence level (50/50% proportion characteristic)

	Population						
Sample Size	**100**	**500**	**1,000**	**5,000**	**10,000**	**100,000**	**1 Mill+**
30	± 14.7%	± 17.1%	± 17.3%	± 17.6%	± 17.7%	± 17.8%	± 17.9%
50	± 9.7%	± 13.1%	± 13.5%	± 13.8%	± 13.9%	± 14.0%	± 14.1%
75	± 5.6%	± 10.4%	± 10.9%	± 11.3%	± 11.4%	± 11.5%	± 11.6%
100		± 8.8%	± 9.3%	± 9.7%	± 9.8%	± 9.9%	± 10.0%

Source: ***Hardwick Research, 2022.***

QUESTIONNAIRE DESIGN

This study is exploratory as mentioned earlier; therefore, the survey questionnaire consists of 10 multiple-choice questions that focus mainly on journalists' digital skills in media organizations, their behavior toward new digital tools, their knowledge of these tools, and their uses.

DATA ANALYSIS

This research used descriptive analysis to generate the appropriate data to answer the main research questions. According to Hejase & Hejase (2013a), "descriptive statistics deals with describing a collection of data by condensing the amounts of data into simple representative numerical quantities or plots that can provide a better understanding of the collected data" (p. 272). Hence, frequencies and percentages were used and depicted in figures for clarity.

RESULTS AND FINDINGS

• Demographics: Age

Figure 1 shows that 60.4% of the respondents are 20 to 30 years old, 22.9% are 30 to 40 years old, and the remaining 16.7% include the higher age categories of 40 to 50 and 50 to 60 years old. So, the results lead to an average age of 31 years.

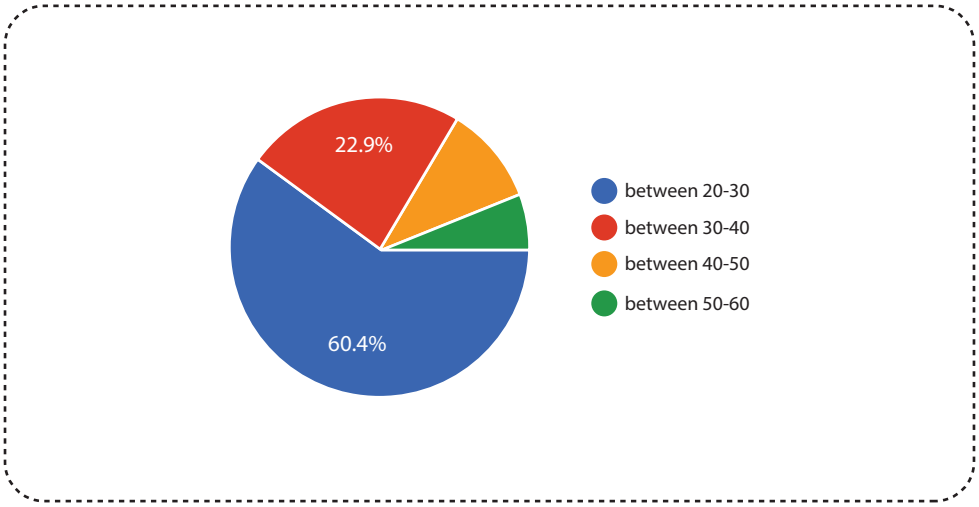

Figure 1. ***Journalists' age distribution***

• Type of Work: Media categories

Respondents were asked about the category of their organizations being traditional or digital. Results in Figure 2 show that 56.3% of journalists worked in digital media with roles in social media, and websites, and the other 43.7% worked in traditional media companies, i.e., TV, radio, and newspapers.

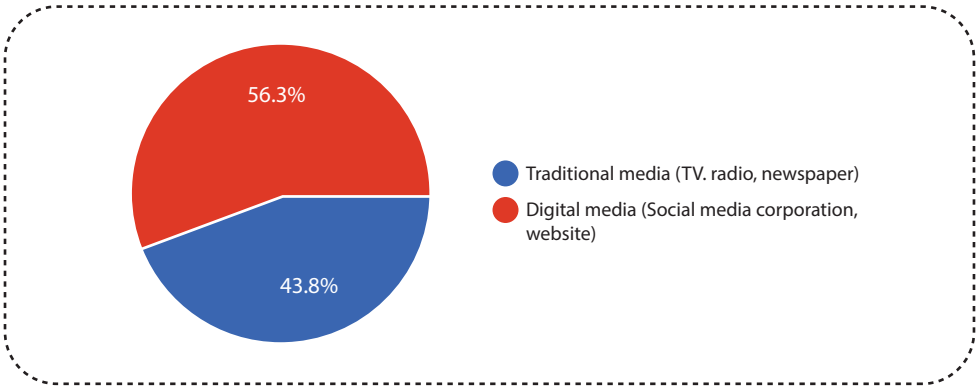

Figure 2. ***Media categories per journalists***

• Respondents' fields of study

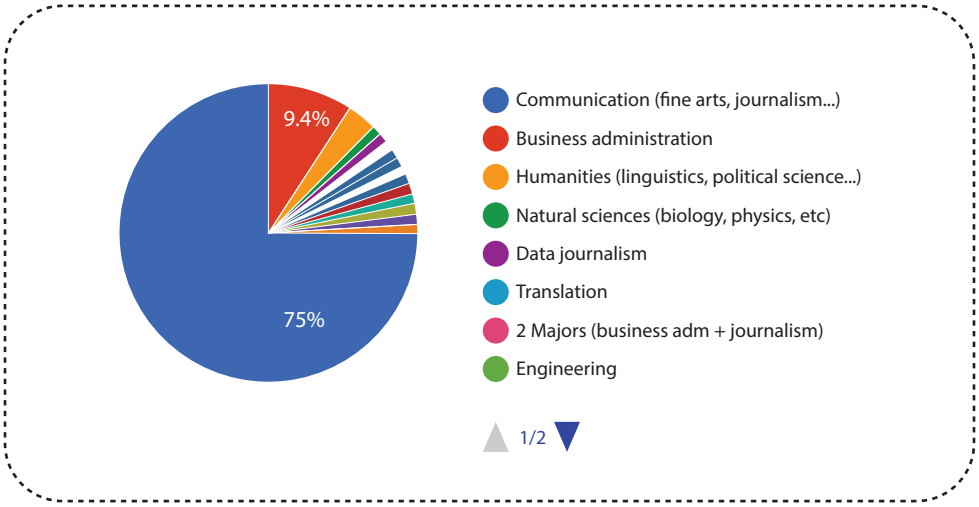

Figure 3. ***Lebanese journalists' field of study***

Figure 3 provides strong evidence that 75% of the journalists who responded to this question majored in fine arts and journalism, followed by 9.4% of the respondents majoring in business administration. The third group of journalists majored in humanities and constituted about 3%, while five (5) other categories of majors constituted 12.6%. Therefore, most of the sample are journalists with an appropriate background, while the remaining could be journalists by practice whose experience is from the job.

STATUS AND STANCE TOWARDS DIGITALIZATION

• Journalists: Journalists' adaptation to digital journalism

About 47% of journalists consider themselves to have a good level of adaptation to the digital environment (Figure 4), 29% find themselves very well adapted, and 22% are moderately adapted.

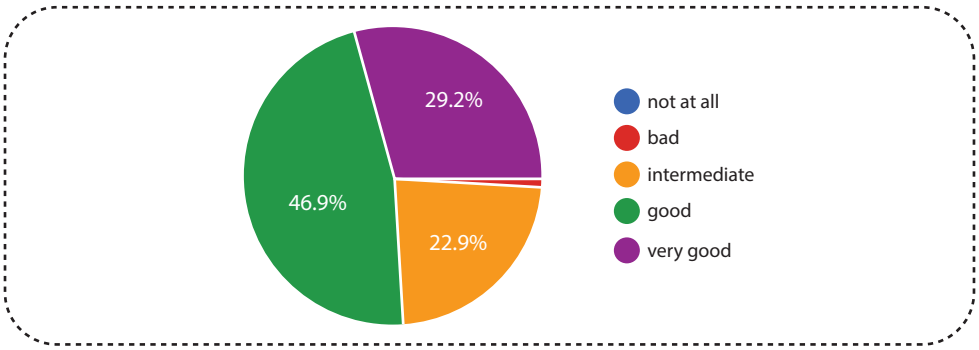

Figure 4. ***Lebanese journalists' adaptation to new digital journalism***

• Self-development of Lebanese journalists' digital skills

Results of the survey shown in Figure 5 indicate that 51% of journalists pursue their development by acquiring the necessary digital skills. However, a significant 49% do not. Such a result may clearly show that there is a digital gap characterizing the journalist who shortly they have to deal with advanced notions of digital journalism. From another perspective, it also shows that there is no formal digital culture to encourage self-development for all employees besides journalists.

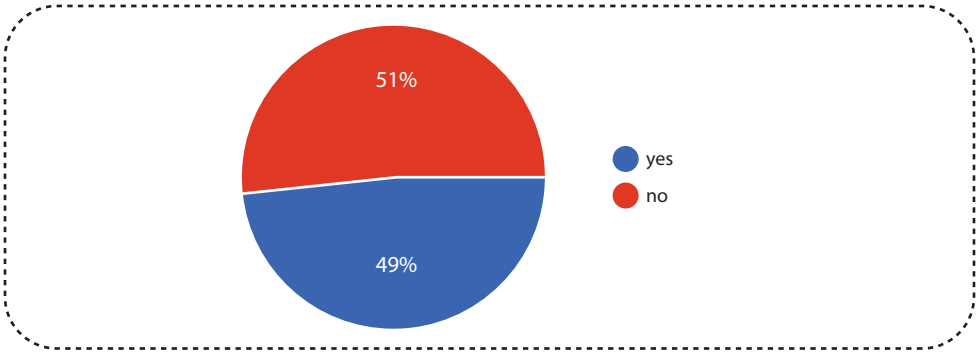

Figure 5. ***Self-development of Lebanese journalists' digital skills***

• Work stress due to digital tasks

Sometimes journalists express feelings of being under pressure. Results shown in Figure 6 expose that about 46% of journalists feel stressed when performing digital tasks at work, around 15% suffer from this pressure, while about 40% feel no pressure at all. Considering the actual level of digital skills exposed in this study, such feelings of stress (pressure) are not surprising.

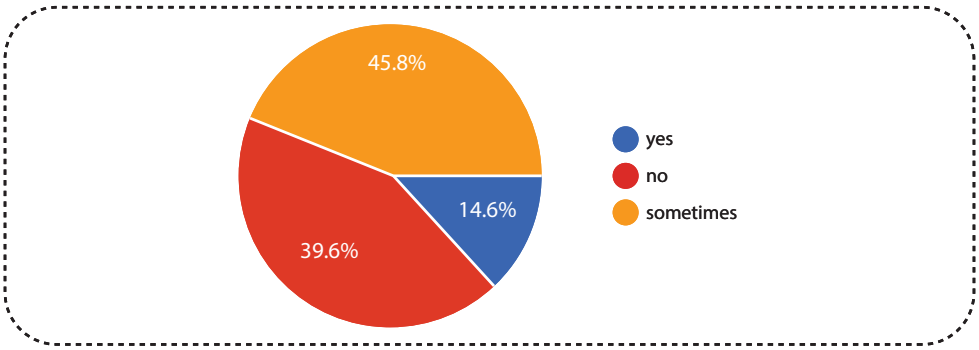

Figure 6. ***Digital tasks and work stress***

• Journalists' knowledge of digital journalism tools

As Figure 7 shows, 46.3% (grouping agree (4) and strongly agree(5)) of the journalists believe they know well digital journalism tools, 43% of the journalist said they have moderate knowledge, and 10.8% have weak knowledge.

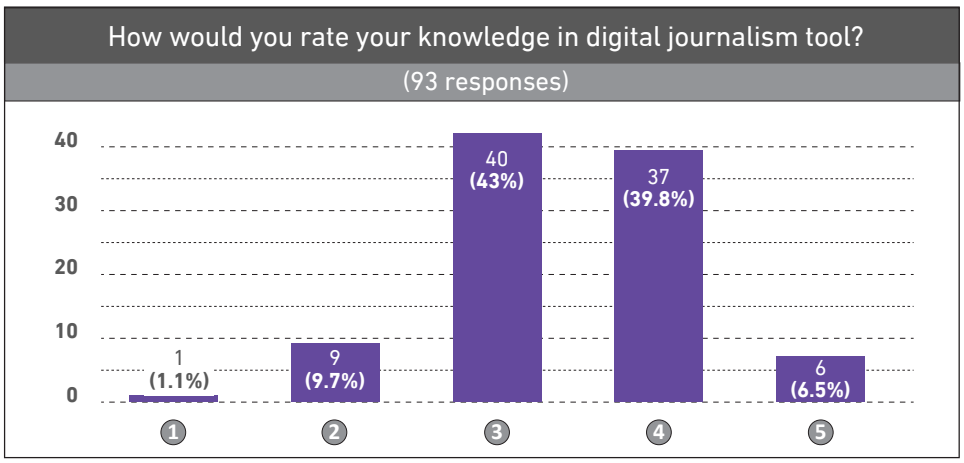

Figure 7. ***Lebanese journalists' self-assessment of digital knowledge***

ORGANIZATIONS:

• Organizational roles in preparing their journalists to deal with digital journalism Training

Figure 8 shows that about 34% of journalists confirmed that their organizations train them in digital technologies and tools needed to comply with duties in digital journalism. But, about 38% admit to receiving basic training rarely, while about 27% had no training at all from their organizations. Worth mentioning that about 1% of journalists receive deep training frequently.

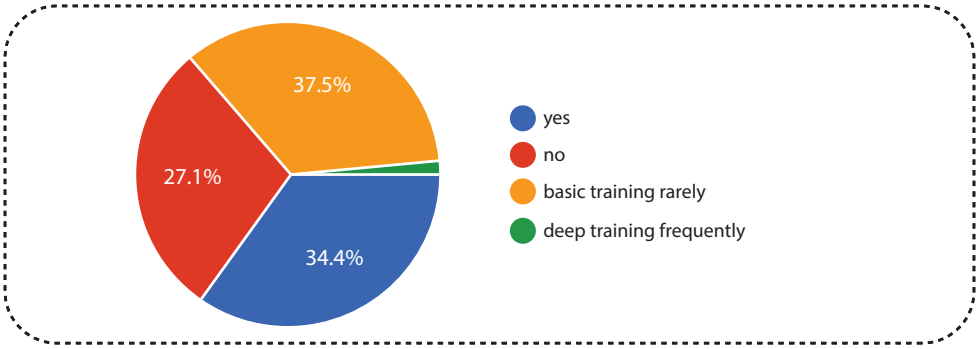

Figure 8. ***Digital tools training in the Lebanese media organizations***

• Organizational status considering media digitization

Results (Figure 9) show that 51% of journalists considered that the organization where they work is advanced in the digital environment. While about 17% claim they have some plans, and 28% said the organization they work for has recently started planning to attend this environment. Nevertheless, around 4% of the organizations have no plans, and a few, consider digitization a bad choice.

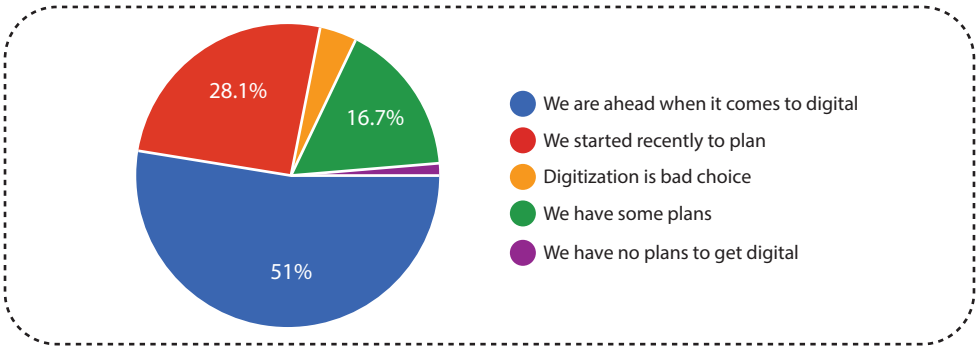

Figure 9. ***Organizational status considering media digitization***

IMPORTANCE OF ELEMENTS NEEDED TO IMPROVE THE DIGITAL ENVIRONMENT

Figure 10 shows that the bars in the diagram represent the height (percentage) of importance as follows: 1: least important to 5: Most important. Therefore, results show that when grouping "important (4) and most important (5)," about 59% of the journalists see that the most important element is the “digital tools." The second element in terms of importance is the "training of the journalists" with about 53% agreement by the respondents. The third element with about 44% in terms of importance, is the “acquisition of digital culture," and finally, in the same rank is the element "digital policies and workflows” with 44%.

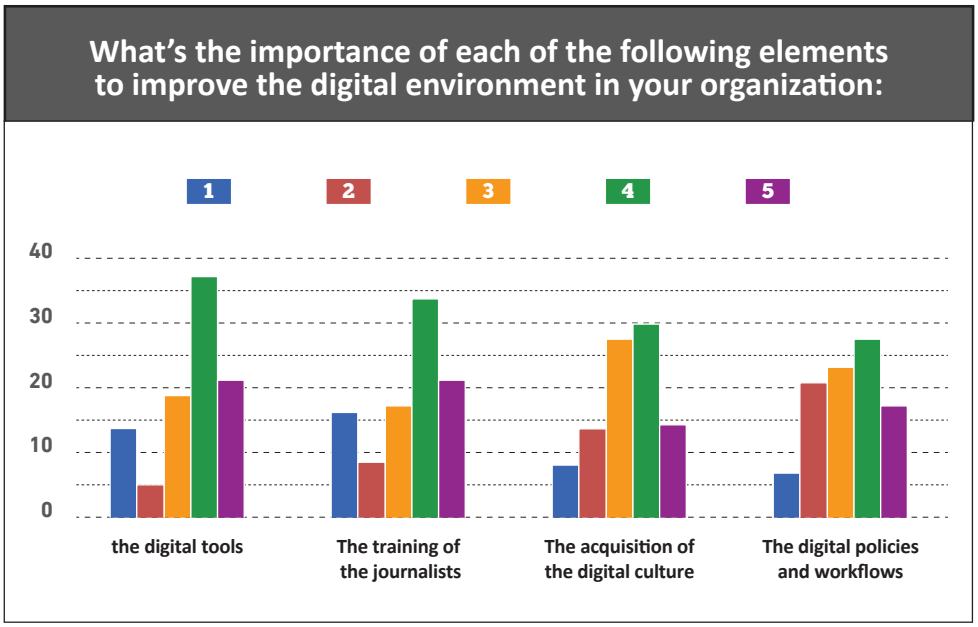

Figure 10. ***Importance of elements needed to improve the digital environment***

DISCUSSION

When a journalist can define digital tools, it means that he/she has a minimum required digital knowledge concerning the digital era. This study shows that 43 out of 96 (46.3%) journalists know to define digital tools. Such a result indicates that the sample of Lebanese journalists has a gap in digital knowledge. This comes from different possible causes among those academic institutions that may not be preparing their students to possess the theoretical and practical foundations of digital knowledge requirements in an era where digital journalists are recruited.

Most newly graduated media practitioners face a professional environment that does not fit their academic preparation and expectations. Maryville University (2023), in a Blog paper, posits that "Revolutionizing global commerce and communication seemingly overnight, the internet has also fundamentally changed how journalists and media outlets operate. Old-school journalism outlets have found it difficult to adjust, but newer types of journalism have flourished in a media landscape that's almost unrecognizable from a few decades ago" (para 6). Also, academic institutions must provide students with digital cultures to change their mindsets and orient them toward the digital one.

Findings show that 60.4% of the journalists surveyed are in the 20-30 age group. Therefore, based on the abovementioned facts about digital knowledge, the study presents evidence that there is a gap in the academic preparation reflecting possible classical curricula in the respondents' respective universities. Besides the academic qualifications requirements, having a digital culture comes from the inner being of each journalist. Concerning this notion, the survey shows that organizational digital culture is not yet considered a game key in the digital environment since 44% of the respondents declared that their organizations did not consider digital culture a priority. Therefore, not having a mature digital culture is a concern about the organizations' sustainability. According to Jack Bray, Content Marketing Manager at GDS Group, "There are several reasons why a digital culture should matter to an organization, but centrally because it supports digital transformation" (para 2). Bray continues, "Consequently, a digital culture impacts corporate culture just as much as business models for the following facts: Breaks hierarchy, speeds up work, encourages innovation, attracts new-age talent, retains the current workforce, allows a collaborative and autonomous workplace, and increases employee engagement by allowing them to bring their voice and opinions to help create an impact" (ibid, para 2-3). In fact, employee engagement or journalist engagement fosters Foucault's (2000) fourth type, i.e., technologies of the self which "permit individuals to effect by their means, or with the help of others, a certain number of operations on their bodies and souls, thoughts, conduct, and way of being, to transform themselves to attain a certain state of happiness, purity, wisdom, perfection, or immorality" (p. 225).

Bughin (2017) posits that "Netflix CEO Reed Hastings once explained in a famous presentation that his company's culture was built on self-driven, high-performing individuals" (para 1). In addition, Bughin asserts that "while a strong digital strategy is critical, you need a culture conducive to its execution. That's particularly important when you pursue the strategy of becoming a "fast follower"—one of two approaches that tend to produce digital winners" (para 2). When reflecting on Netflix and the research done by Bughin, one can easily conclude that the journalists needed today to seek continuous preparation and training either through their organizations or by taking self-initiatives. Consequently, this study considered the above and found that 47% of respondent journalists have a good level of adaptation to the digital environment, and 51% of journalists pursue their development by acquiring the necessary digital skills. However, a significant 49% do not. Also, about 34% of journalists confirmed that their organizations train them in digital technologies and tools needed to comply with duties in digital journalism. But, about 38% admit to receiving basic training rarely, while about 27% had no training at all from their organizations. Possible causes for not having higher numbers include organizations not having a mature digital culture, journalists having high daily workloads, organizations not having preplanned training programs for their journalists' development, and the lack of responsiveness toward the fast changes in the media industry.

The previous section discussed the status of the Lebanese respondent journalists. In summary, the following applies: When we discuss the human factor in the advancement of the media organization to the digital era, the main issue is how to break with the classical production models; the generation of printed newspapers and television media producers, lack the resilience and the agility to shift from, the so-called "The golden age" of the classical media, into a rapid and instantaneous and multi-skills model, of the new media. Hodali (2019) contends that “With 10 private dailies in three languages and over 1,500 weekly or monthly magazines, Lebanon produces almost half of the Middle East’s periodicals, according to a “Reporters Without Borders” study. In addition, there are also nine TV stations and around 40 radio stations. Lebanon has a diverse media landscape. More and more media companies are betting on the expansion of digital media but the strategy remains unclear” (para 9-10).

Melki, Dabbous, Nasser, et al. (2012) assert that Lebanon is witnessing a continuous internal debate about the digital gap within media organizations. Moreover, the authors posit that “The current business model that Lebanese media rely on has not been affected by digitization. It still relies on partisan and foreign financial support, in addition to the traditional business models which mainstream media have used for decades” (p. 7). . Thus, we may discuss the economic factor and the organizational management support.

Concerning the economic factor, many media organizations have struggled to have a successful digital transition, for economic reasons, as advertising revenue (essential to fueling the traditional organization) has fallen in favor of digital (Palmer & Koenig-Lewis, 2009). Many press outlets (across the world) have either closed fully or have been content with their digital version, which is less expensive in terms of expenditure. And the lack of income has directly impacted the power to implement new digital editorial systems in the media industry and left journalists in these organizations out of touch with digital tools. One has not to forget that Lebanon, since the end of the year 2019, has been suffering from an economic crisis (Rkein et al., 2022), which has also affected the written press, since the cost of printing has risen and has increased the price of the newspaper and lower sales. But the organizations that have reached their digital course, undoubtedly receive the external feed, whether it is political money or businesspersons' support.
Nevertheless, in the context of the local crisis in Lebanon, adopting new techniques and equipment in the digital era is now expensive for some organizations that prefer to work as much as possible with what is available rather than paying for the installation of new systems. This reality prevents efficient and effective production and puts more journalists under pressure. This study shows that 47% of journalists consider themselves to have a good level of adaptation to the digital environment, about 45.8% of the journalists feel stressed when performing digital tasks at work, and about 15% suffer from this pressure.

Also, the survey shows that 51% of journalists considered that the organization where they work is advanced in the digital environment. While about 17% claim they have some plans, and 28% said the organization they work for has recently started planning to attend this environment.These numbers have two indicators. Almost half of the organizations found their digital path, but 28% had recently started their plans at this stage, and this proves that a consistent number of media organizations in Lebanon are still not on the digital path. And, we cannot confirm for sure, that all 51% of the respondent journalists know how to classify an organization in the digital era.

The above is confirmed by 46.3% of the journalists who believe they know digital journalism tools well, and 43% of the journalist have moderate knowledge.

Hodali (2019) posits that “More and more media companies are betting on the expansion of digital media but the strategy remains unclear” (para 10). Such a blurred strategy affects the implementation of best practices in media organizations, especially what concerns their human capital’s training and development. This study shows that about 34% of journalists confirmed that their organizations train them in digital technologies and tools needed to comply with duties in digital journalism. Consequently, 51% of the respondent journalists pursue their development by acquiring the necessary digital skills. Irrespective if there is a group in common, who is either trained by their organizations or who is seeking self-development, there are about 38% of respondent journalists admit receiving basic training only, and a minimum of 1% receive deep training.

CONCLUSION

Most Lebanese media organizations are struggling to adapt to a fully digital transformation. They are moving forward slowly by doing little change that doesn't cost money, especially during the current economic crisis. So the economic factor is as significant as the human factor since media organizations are constrained to certain economic limits, especially since the price of digital editorial systems is an influential factor in adopting a system or another (Mangon, 2018; Khalifeh, 2018a, b).

This research addressed two questions, the first addressed “To what extent the press companies in Lebanon have digitally transformed?”, and the second assessed “How did the Lebanese journalists adapt to the new digital era?” As discussed earlier, Lebanese organizations continue the quest to get out of their troubles as they show gaps in their transformation process. The majority of such organizations continue to search for their appropriate business models. That is illustrated by 59% and 53% of the respondents who asserted that the most significant elements in their organizations, toward achieving digital transformation, are "digital tools" and "training of the journalists," respectively. They left behind the more strategic elements illustrated by equal weights of about 44% of them choosing the “acquisition of digital culture," and the “digital policies and workflows.” In addition, 51% of the respondents claimed their companies are advanced in the digital environment even though about 17% claim they have some plans, and 28% said the organization they work for has recently started planning to attend to this environment. Those facts indicate there are discrepancies that urge Lebanese press companies to seriously define their value propositions, choose appropriate business models, decide on how they will deal with their journalists, acquire necessary technologies to move closer to the digital era, and sustain their stance. Such a fact is a recurrent topic among Lebanese researchers who try to discuss the status of the Lebanese media (Melki, Dabbous, Nasser, et al., 2012; Khalifeh, 2018 a, b). As for the second question related to Lebanese journalists and their efforts to adapt to the new digital era, the results show that, on average, Lebanese journalists are not yet prepared to deal comfortably with the skills and competencies required to carry out digital tasks successfully. The aforementioned is in agreement with Daher, El Zir, and Jaber (2022) who asserted that "Unfortunately, the Lebanese workforce is ill-equipped to thrive in a

digital economy. Without the right skills, Lebanon may not benefit from the opportunities disruptive technologies and digital firms offer" (para 4).

It is worth mentioning that digital transformation is a whole process (Verhoef, Broekhuizen, Bart, et al. (2021) that touches all organizational levels, especially the journalists and their work. That's why it's a bit hard to change the mentality of traditional journalists and embrace them in a whole new environment with tools of digital media and integrate them into their daily journalistic work. However, organizations must cultivate the needed competencies capitalizing on the strong sense of self-development that 51% of the respondent journalists have shown. Media organizations and newsrooms need to be proactive such that these entities must seek partnerships with universities in such a manner to jointly design an innovative journalism curriculum that embodies digital media besides other competencies that are considered traditional (writing, editing, etc). The aforementioned shall support the new journalism or Online Journalism. Saltzis and Dickinson (2008) posit that "As more and more news organizations have developed a presence on the Internet, a new form of journalism has appeared" (p. 4). In addition, Pavlik (2001) hails "from online journalism as "potentially a better form of journalism" as it can "re-engage an increasingly distrusting and alienated audience" (p. xi). Pavlik's statement about the distrusting and alienated audience applies to the Lebanese audience as well, a fact supported by Hejase and Hejase (2013b), Mangon (2018), and Hejase, Hejase, and Fayyad-Kazan (2020). Consequently, Lebanese media outlets started transitioning to Alternative Media Outlets. El Sherif, Bahnam, Mikhael, et al. (2021) define them as "Media sources that differ from established or dominant types of media, such as mainstream media or traditional media" (p. 4). Downing (2001) stressed the difference in terms of their "content, production, or distribution." In addition, El Sherif et al. assert that "alternative media are small and/or nascent media platforms, mostly online, that offer an alternative narrative to mainstream media" (p. 4). However, besides such development, this work strongly recommends that young journalists have to be cultivated and armed with multitasking competencies to support and sustain Lebanese media organizations and to strengthen the role of new newsroom functions. Such an endeavor is possible by qualifying journalists to own all the knowledge and adopt the adequate culture; to be ready to learn the digital tools practically. In parallel, a serious effort is needed to culture the current practitioner journalists about the priority of digital skills and having the appropriate thinking necessary to carry out digital journalism functions.

LIMITATIONS OF THE STUDY

This work has its limitations starting with the small sample size that limits the generalization of the findings. This work being exploratory research, the findings act as insights into the next stage of future research that may depend on a larger sample size and a more comprehensive survey questionnaire in content and distribution. Moreover, selected journalists were not stratified to represent the different categories existent besides the newsrooms therefore, future research must look into that as well.

RECOMMENDATIONS

Given that the media industry is evolving very fast, Lebanese media organizations are to step into the actual digital era, and enhance the full-digital transformation process, since

most of them are lagging. Media organizations must establish a clear strategy to implement an integrated newsroom, achieve digital production, raise productivity, make the tasks go faster with central observation and tracking, and bring less pressure to the journalists. But first, it's inevitable to train them continuously and cultivate journalists fit to function within the digital era.

This research is an eye-opener to newsroom directors and media organizations' policymakers. In addition, researchers in the field are encouraged to carry out more comprehensive research, create a platform to support academic institutions' efforts to develop their curricula, and motivate professional journalists to engage in self-development efforts.

Note: *This paper has been published in Žurnalistikos tyrimai, 2022. 16, pp. 152-173.*

REFERENCES

Bray, J 2022, May 18, '*What is Digital Culture?*,' GDS Group. [Online]. Available at: https://gdsgroup.com/insights/article/what-is-digital-culture/ (Accessed: 11 January 2023)

Bughin, J 2017, '*Digital success requires a digital culture*,' McKinsey & Company. [Online]. Available at: https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/the-strategy-and-corporate-finance-blog/digital-success-requires-a-digital-culture (Accessed: 11 January 2023)

Commerce du Levant. (2017). *Pierre Choueiri : 'La presse doit entamer sa transition digitale'* -. [online] Available at: https://www.lecommercedulevant.com/article/27318-pierre-choue

Bray, J 2022, May 18, '*What is Digital Culture?*,' GDS Group. [Online]. Available at: https://gdsgroup.com/insights/article/what-is-digital-culture/ (Accessed: 11 January 2023)

Bughin, J 2017, '*Digital success requires a digital culture*,' McKinsey & Company. [Online]. Available at: https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/the-strategy-and-corporate-finance-blog/digital-success-requires-a-digital-culture (Accessed: 11 January 2023)

Commerce du Levant. (2017). *Pierre Choueiri : 'La presse doit entamer sa transition digitale'* -. [online] Available at: https://www.lecommercedulevant.com/article/27318-pierre-choue

iri-la-presse-doit-entamer-sa-transition-digitale- (Accessed: 21 January 2023).

Daher, M, El Zir, A and Jaber, A 2022, March 14, '*Skilling Up Lebanon: An opportunity to lower unemployment rates in Lebanon amid a major financial crisis?'*{Blog] World Bank [Online]. Available at: https://blogs.worldbank.org/arabvoices/skilling-lebanon-opportunity-lower-unemployment-rates-lebanon-amid-major-financial (Accessed: 13 January 2023).

De la Boutetière, H, Montagner, A and Reich, A, 2018, '*Unlocking success in digital transformations,*' McKinsey & Co. [Online]. Available at: https://www.mckinsey.com/capabilities/people-and-organizational-performance/our-insights/unlocking-success-in-digital-transformations (Accessed: 5 January 2023).

Downing, J 2001, '*Radical Media*,' Thousand Oaks, CA: Sage Publications
Doyle, G 2010, 'From Television to Multi-Platform. Convergence,' *The International Journal of Research into New Media Technologies*, vol. 16, no. 4, pp. 431–449. DOI:10.1177/1354856510375145.

Doyle, G 2015, 'Multi-platform media and the miracle of the loaves and fishes,' *Journal of Media Business Studies*, vol. 12, no. 1, pp.49–65. DOI:10.1080/16522354.2015.1027113.

El Sherif, H, Bahnam, L, Mikhael, R, Thebian, A and Kaoukji, D 2021, '*Media and Information Landscape in Lebanon*,' Interview [Online]. Available at: https://internews.org/wp-content/uploads/2021/10/Media-and-Information-Landscape-in-Lebanon.pdf (Accessed: 14 January 2023).

Foucault, M 2000, '*Ethics: Subjectivity and Truth: Essential Works of Foucault 1954–1984*,' Volume 1. Penguin Books.

García Avilés, JA, León, B, Sanders, K and Harrison, J 2004, 'Journalists at digital television newsrooms in Britain and Spain: workflow and multi-skilling in a competitive environment,' *Journalism Studies*, vol. 5, no. 1, pp.87–100. DOI:10.1080/1461670032000174765.

Hardwick Research 2022, '*Determining Sample Size. Hardwick Research Resources*,' [Online]. Available at: https://www.hardwickresearch.com/resources/determining-sample-size/H (Accessed: 5 January 2023).

Hashem, M, Sfeir, E, Hejase, HJ and Hejase, AJ 2022, 'Effect of Online Training on Employee Engagement during the COVID-19 Era,' *Asian Business Research*, 7(5), pp. 10-40. https://doi.org/10.20849/abr.v7i5.1294

Hejase, AJ and Hejase, HJ 2013a, '*Research methods: A practical approach for business students*' (2nd ed.). Philadelphia, PA, USA: Masadir Inc.

Hejase, AJ and Hejase, HJ 2013b, 'Confidence in News Media: Exploring Lebanon,' *Global Media Journal*, *Arabian Edition*, vol. 2, no. 1-2), pp. 47-67.

Hejase, HJ, Hejase, AJ, & Fayyad-Kazan, H 2020, 'News Media in Lebanon: Quantifying the Confidence Using Parametric and Non-parametric Testing,' *Saudi J Bus Manag Stud*, vol. 5, no. 11, pp. 512-529. DOI: 10.36348/sjbms.2020.v05i11.001

Honda, D 2019, July 5, '*Lebanon's media landscape - struggling with digitalization and media freedom*,' [Online]. Available at: https://akademie.dw.com/en/lebanons-media-landscape-struggling-with-digitalization-and-media-freedom/a-48635698 (accessed: 12 January 2023).

Khalifeh, P 2018a, October 29, '*La presse écrite Libanaise à l'agonie*,' [Online]. Available at: https://www.middleeasteye.net/fr/opinion-fr/la-presse-ecrite-libanaise-lagonie [Accessed 13 December 2022].

Khalifeh, P 2018b, November 11, '*Pressing issue: Lebanon's print media is dying*,' Middle East Eye [Online]. Available at: https://www.middleeasteye.net/fr/news/lebanons-written-press-dying-1835548710 (Accessed: 13 January 2023).
Mangon, S 2018, October 15, '*The quest for better information: Inside Lebanon's media labs,*' [Online]. Available at: https://www.synaps.network/post/emerging-media-startups-lebanon (Accessed: 13 January 2023).

Manyika, J, Lund, S, Bughin, J, Woetzel, J, Stamenov, K and Dhingra, D 2016, March, '*Digital Globalization: The New Era of Global Flows,*' The McKinsey Global Institute (MGI) [Online]. Available at: https://www.mckinsey.com/~/media/mckinsey/business%20functions/mckinsey%20digital/our%20insights/digital%20globalization%20the%20new%20era%20of%20global%20flows/mgi-digital-globalization-full-report.ashx (Accessed: 13 January 2023).

Maryville University 2023, '*The Rise of Digital Journalism: Past, Present, and Future,*' [Online]. Available at: https://online.maryville.edu/blog/digital-journalism/ (Accessed: 11 January 2023).

Melki, J, Dabbous, Y, Nasser, K and Mallat, S (lead reporters), Shawwa, M, Oghia, M, Bachoura, D, Shehayeb, Z, Khozam, I, Hajj, A, Hajj, S (reporters) 2012, '*Mapping Digital Media: Lebanon*' Open Society Foundation [Online]. Available at: https://www.researchgate.net/publication/335975474_Mapping_Digital_Media_Lebanon

Palmer, A and Koenig-Lewis, N 2009, 'An experiential, social network-based approach to direct marketing,' *Direct Marketing: An International Journal*, vol. 3, no. 3, pp. 162-176. https://doi.org/10.1108/17505930910985116

Pavlik, JV 2001, '*Journalism and New Media*,' New York, NY: Columbia University Press.

Rkein, A, Hejase, HJ, Rkein, H and Fayyad-Kazan, H 2022, 'Bank's Financial Statements as a Source for Investors' Decision-making: A Case from Lebanon,' *Academy of Accounting and Financial Studies Journal*, vol. 26, no. 6, pp. 1-14.

Saltzis, K and Dickinson, R 2008, 'Inside the changing newsroom: journalists' responses to media convergence,' *Aslib Proceedings*, vol. 60, no. 3, pp. 216-228. DOI:10.1108/00012530810879097

Santos, É, Medeiros, B, Lenzi, A and Ghinea, G 2019, 'Journalistic newsrooms in a context of convergence: an exploratory comparative study in Brazil, Costa Rica, and England,' *Communication & Innovation*, vol. 20, no. 43. DOI:10.13037/ci.vol20n43.5933.

Verhoef, PC, Broekhuizen, T, Bart, Y, Bhattacharya, A, Dong, JQ, Fabian, N and Haenlein, M 2021, 'Digital transformation: A multidisciplinary reflection and research agenda,' *Journal of Business Research*, vol. 122, pp. 889-901. https://doi.org/10.1016/j.jbusres.2019.09.022

Vial, G 2019, 'Understanding digital transformation: A review and a research agenda,' *The Journal of Strategic Information Systems*, vol. 28, no. 2, pp. 118-144. https://-doi.org/10.1016/j.jsis.2019.01.003.

Younis, JA, Hejase, HJ, Dalal, HR, Hejase, AJ and Frimousse, S, 2022, 'Leaderships' Role in Managing Crisis in the Lebanese Health Sector: An Assessment of Influencing Factors,' *Research in Health Science*, vol. 7, no. 3, pp. 54-97. http://dx.doi.org/10.22158/rhs.v7n3p54

MULTIMEDIA PLANNING STRATEGIES AS A TOOL FOR INTERNATIONAL JOURNALISM AND ALTERNATIVE MEDIA STUDIES

[1]Oleg Dmitriev, [2]Hussin J. Hejase
Email: dmitrievoa@gmail.com

Abstract: News development is currently affected by digitalization. Therefore, media scholars using digital means to cover the news are required to develop the so-called "multimedia mindset" both among professional journalists and media students. It is not enough to teach the technology – the scholars have to embrace new journalism tools to incorporate them with the story planning activities. This article aims to look into how the aforementioned planning activities are used in the curriculum for Russian media students and professionals in the field of international journalism. The paper is qualitative and descriptive based on secondary data reported in hybrid written media. Also, this research uses a case study dealing with a proposed new program 'International News Production' a track within the Contemporary Journalism Master program including alternative media at the High School of Economics Media Institute in Moscow. The findings of this study shed light on the skills needed in new alternative media. Students undergoing the proposed new program in alternative and international media enhance their professional skills and qualifications while experiencing Russian culture. Graduates from the program shall have ample opportunities to pursue careers in various areas of the media industry, including visual journalism, data journalism, storytelling, production, and newsroom management at various international newsrooms. Methods of teaching new alternative media can be easily projected to the work with practicing journalists in news channels and information agencies.

Keywords: Alternative media, international journalism, skills, multimedia planning strategies

Introduction

The first two decades of the 21st century were marked by great changes and innovations in the sphere of media. With the advent of Web 2.0, it became possible to disseminate information on various platforms that do not require extra effort to publish the material. According to Anderson (2007), "Media coverage of Web 2.0 concentrates on the common applications/services such as blogs, video sharing, social networking, and podcasting—a more socially connected Web in which people can contribute as much as they can consume" (p. 4). This gave rise to many alternative media that shape the future of the modern journalism landscape. For example, the Russian RT Television channel was the first news service that began to promote its news content on the YouTube platform. Khovanskaya (2013) reported that "The Russian TV channel Russia Today, which broadcasts in English, has set a world record - one billion views on YouTube" (para 1). Moreover, in its news release, RT (2020) reported "RT is the #1 most-watched TV news network on YouTube, with a record-setting 10 billion views as well as more than 16 million subscribers. The total number of views from across RT's channels on YouTube has put the network ahead of all the news channels of the BBC, CNN, Al Jazeera, Euronews, Fox News, and others" (para 1).

Another tendency is the use of innovations in journalism. Stories based on big data,

*1 Professor, Media Department, HSE University, Moscow
*1 Advisor, Sputnik News Agency
*2 Consultant to the President, Professor of Business Administration, Al Maaref University, Beirut, Lebanon

360-degree video camera shooting, and projects that involve virtual and augmented reality (VR and AR) are winning huge popularity among younger audiences (Hodgson, 2017; Watson, 2017). That is why many media departments at Russian Universities are trying to embrace the experience of alternative media innovations into their curricula. In order to describe these activities in detail it is necessary to define the concept of alternative media and its influence on the young generation.

THEORETICAL AND EMPIRICAL REVIEW

- **Roots and the Definitions of alternative media**

Alternative media, as a subject for scientific studies, sometimes tends to be ignored among "mainstream" scholars. Alternative media has been mentioned in several linguistic, psychological, and media studies in the middle of the 20th century. Roger Silverstone, in his fine book, 'Why Study the Media?', affirms that alternative media 'have created new spaces for alternative voices that provide the focus both for specific community interests as well as for the contrary and the subversive' (Silverstone, 1999, p.103). Atton (2002a) argues that "Alternative media are crucially about offering the means for democratic communication to people who are normally excluded from media production. They are to do with organizing media along lines that enable participation and reflexivity" (p.4). Also, Jurgen Habermas (1999), the founder of the communicative rationality theory, states that "it is possible to change society by changing the structure of communication and not the production". Dmitriev (2017) posits that "Habermas formulated two communication setups at the level of the society: "external", in which the initiative comes from structures that regulate the society and the "internal mechanism" that comes from within. However, the last two decades had witnessed heated debates among researchers in relation to defining alternative media (Bailey, Cammaerts, & Carpentier, 2008; Fuchs, 2010). Nevertheless, Atton (2002b), compiled a summary of alternative media theories based on four directions. He defines the concept as "a variety of media projects that differ from the traditional ways of media operation." Atton, quoted in Dmitriev (2017), highlighted the basic features of alternative media. Among them, reference may be made to:

> "
> - content that is not typical for mainstream media;
> - innovative design;
> - use of innovative technologies and new media;
> - change of the editorial and organizational structure within the media;
> - development of the community centered around this media outlet " (Dmitriev, 2017, p. 46).

However, Atton (2002a) proposes "alternative media is the capacity to generate non-standard, often infractory, methods of creation, production, and distribution as do by content" (pp.3-4). Also, Canadian researchers Patrick Anderson and Judith Smith define alternative media on the basis of the position thereof in the entire media system. Alternative media are the "media that hold the niche between underground personal projects and the massive consumer media market, and unite the element of artistic youth media to tell the story in an unusual form" (Andersson & Steedman, 2002). Noam Chomsky states that alternative media are the ones that do not reflect the official and corporate point of view on news and current affairs. Chomsky also offers

his own set of "filters" in order to define the level of media "alternativity". It includes the following components: Form of media ownership, financing schemes, sources of information, editorial policy, and ideology. These trends resulted in the formation of the so-called "alternative journalism" (Chomsky, 1989). It is viewed as the complex of media content that deviates from the standards accepted in the mainstream media. More recently, Mourtada and Salem (2014) posit "Twenty-first-century socio-technological transformations have flattened informational hierarchies and altered power structures within our societies" (p. 3). In fact, capitalizing on enhanced skills, competencies, and improved access to new media tools, online movements have informed public opinion in ways that have shaped policy agendas, discourses, government policy, and law (Bessant, 2014). Turner and Saber (2021) assert that "Digital technologies play a significant role in the development of alternative media and their news sources" (p. 1).

Having analyzed all these theories regarding the rapid boost of alternative media, the author of this paper comes up with his own definition of alternative media. It is the union of bloggers and journalists with its own news agenda that differs from the mainstream outlook on current affairs. The information in alternative media trends is positioned in such a way that the viewer would not only be interested in the news but could also share this information with other news outlets and social networks.

Alternative media both have local and international goals. The present-day news environment is shaped by two opposite processes: globalization and regionalization (Lewis, 1993). On the one hand, the alternative media sites that are targeting a world-wide audience have to "customize" and adapt global information for one or several loyal segments, which can make the news more regional by nature. On the other hand, community information from a blogger might attract global appeal if it deals with the common values of people in different parts of the world.

In the present-day environment it is possible to single out the following types of alternative media:

- International alternative media. These are TV channels and websites that do not share the mainstream view on current world events: Al Jazeera International (Qatar), RT, and Sputnik (Russian Federation), NHK World (Japan), etc
- Nationwide alternative media. As a rule, they might unite communities in various cities according to a common socio-political feature. (The Veteran's News (USA) and others;
- Local media that practice citizen journalism to discuss the problems of a single region (Boreal Community Media, Minnesota, USA).

After the analysis of modern international alternative media, one may come to the conclusion that their status depends a lot on the segments of the target audience. For example, RT, a 24/7 international news channel in Russia, is seen as a mainstream channel in the Russian Federation. However, if we take into consideration the global international audience, this channel is definitely an alternative media, as it contradicts the views of the major 24/7 mainstream media: CNN, BBC World, Fox News, etc.

As the events of 2022 show, it is also possible to completely block Russian media that used to provide an alternative point of view in Eastern Europe. That's why they had to find other markets in various parts of the world to engage new types of audiences.

AUDIENCE SEGMENTATION

The creators of alternative media are trying hard to get the active segments of the target audience. However, it would be hard to get huge popularity with just one website. This is why the present-day alternative media become part of bigger aggregators or, as an option, they can initiate their own mobile applications (or Apps). This guarantees the influx of a younger audience that tends to consume the news with the help of alternative delivery methods. In Russian statistics, it can be clearly seen that the target audience of the Russian app Telegram, is the category constituting 22-25 years old, while the audience for the news websites ranges from 35 to 50 years old (Ivanichev, 2019). That is why it is possible to classify the demographics and behavioral criteria in the following way:

- The audience of social media pages and apps;
- The audience of the news websites

Considering the values of the alternative media, we may single out the groups that clearly show the values of various audience segments:

- Opposition to authorities and the establishment;
- A desire to become a civic activist through social and cultural projects;
- A desire for innovation, both in knowledge and technology;
- Perception of media as something that has no relation to the life of the person.

Another important factor in the mapping of social media is compliance with media law in various countries. In the United Kingdom, for example, any English-speaking broadcaster has to comply with the country's law. These rules are formulated on the basis of the Broadcast Code compiled by Ofcom, the body that regulates the media to ensure the flow of credible and impartial information across the British Isles (Ofcom, 2019). This holds true to the international news channels, both mainstream, and alternative: CNN, Fox News, RT, Al Jazeera, etc. In spite of the tensions in the relations between The Russian Federation and European nations, Ofcom is trying to make an impartial judgment regarding the activity of the above-mentioned organizations. In 2010, CNN received a warning from Ofcom for failing to mention the fact that one of the news programs was sponsored (Ponsford, 2010): It could have led the viewers to be confused with regard to the impartiality of the information given in the program. In 2019, Ofcom fined RT 200 thousand pounds for the alleged bias in the so-called "Skripal Case" (the scandal surrounding the poisoning of the former Russian-born British Agent), and during the coverage of the war in Syria (Sweney, 2020). RT lodged an appeal against the decision. However, the regulations against Russian media became severe in 2022 after the events around Ukraine. RT and Sputnik were blocked in most of the Europe and UK due to the

so-called “propaganda issues;” (Deutsch, 2022) a fact viewed in Russia as a violation of the freedom of speech.

One more important factor deals with financing issues of alternative media. It’s already been mentioned that some of the media represent countries or international organizations. However, financing of such projects may be provided in several ways. For example, Al Jazeera from Qatar was initially financed by the personal funds of the country’s rulers. Then the obligation was passed on to the non-profit governmental Qatar Foundation (Vinichenko, 2016). Moscow-based RT, which reflects the views of the Russian Government on the international scene, is a non-profit organization that receives financing from national institutions. Sputnik News Agency, however, is a fully state project, just like NHK World from Japan and Arirang International from South Korea.

Overall, alternative media have become a driving force and a powerful voice that appeals mostly to young people. That is why the author finds it necessary to implement these ideas into the journalistic curriculum.

METHODOLOGY

The paper is qualitative and descriptive based on secondary data reported in hybrid written media. According to Hejase and Hejase (2013), “There is no need to collect and manipulate data since the researcher has in hand reliable and valid data that is extracted from recognized and reliable sources” (p. 114). Also, this research uses a case study dealing with a proposed new program of alternative media at the Media Department at the High School of Economics in Moscow.

THE HIGH SCHOOL OF ECONOMICS (HSE) IN MOSCOW

Considered one of Russia’s top universities, “HSE University is a leader in Russian education and one of the preeminent economics and social sciences universities in Eastern Europe and Eurasia. Having rapidly grown into a well-renowned research university over two decades, HSE University sets itself apart with its international presence and cooperation” (HSE, 2023a).

INSTITUTE OF MEDIA

The Institute suggests “taking a look at social processes in a much broader way by studying journalism, media communications, media management, big data analysis, directing basics, film editing, digital production, stages of the creative process, and the production cycle of creating a media product” (para 2). The faculty (instructors and practitioners) of the Institute of Media teach in several programs including Journalism, Media Communications, Media Management, Transmedia Production in Digital Industries, Data Journalism, Critical Media Studies, and International News Production”

(para 3). The Institute uses “a project-based approach to learning, offering a modern production base that allows for the most diverse products to be created – from newspaper layouts to multimedia articles and TV shows” (ibid).

DISCUSSION

- **Alternative media principles in training media specialists**

The author applies the studies of alternative media at the Institute of Media at HSE in Moscow. In 2019, this educational institution launched an English-language “International News Production” Masters programme for those who have Bachelor’s Degrees in other spheres. Focusing on non-standard approaches to the coverage of world events and teaching new media technologies. This degree has a duration of two academic years. Actually, **HSE presents its** Master’s program ‘International News Production’ as follows:

“In 2022 "International News Production" becomes a track within "Contemporary Journalism." This Masters’ Programme is offered by HSE’s Faculty of Communications, Media, and Design. Focusing on non-standard approaches to covering world events and teaching new media technologies, the programme will be taught exclusively in English by leading figures of the international broadcasting industry in Russia, including RT and Sputnik News Agency” (HSE, 2023b). Exhibit 1 provides a clear insight into the program’s advantages.

Exhibit 1: ***Advantages of the new degree***

- An opportunity to master the industry’s latest innovations and build skills in news analysis and agenda setting within a fast-paced media environment
- On-site training in multimedia content production at international newsrooms
- The opportunity to learn editing and broadcasting with Dalet software, which is used by leading television networks and radio companies
- Lectures in contemporary media theory

An opportunity to amass contemporary knowledge about the international media sphere and current economic trends.

Source: ***HSE, 2023c.***

The aim of the program is to give future specialists innovative skills that are getting more and more popular in the production of news content worldwide. Almost half of the students have degrees in Linguistics which builds up the foundation for various creative projects and activities. Another important tool is the philosophy of alternative media.

The first year includes courses—often taught with an unorthodox approach—that provide an in-depth understanding of media theory and history; media economics and its legal aspects; the use of "new media"; and non-traditional methods of creating and delivering high-quality content to the intended audiences. The curriculum starts with the course called "The Introduction to Alternative Media". It was designed by Alexey Nikolov, Managing Director of the RT television channel. The objective of the course is to teach students critical thinking techniques that can help to assess and verify information that is spread by the mainstream media and usually taken for granted by many media consumers. That is why the course gives students an opportunity to compare various bits of information both from mainstream and alternative media sources. The comparison is carried out on the basis of important themes in the global current affairs agenda. The course is going on in parallel with other practical activities that involve international media outlets. They are:

- Visualization of information with graphics and other elements of data journalism;
- Development of storytelling techniques through video, still pictures, and sound;
- Filming stories with innovative methods – such as panoramic video;
- Practice in newsgathering and news planning organized by the leading professionals from Sputnik and RT;
- Introduction to VR and AR in journalism, brainstorming sessions on how to plan media projects in the future.

The final research project of the students is done in the form of a comparative content analysis of all the major cases in alternative news and current affairs. This created an empirical database that will provide data for the researched alternative media components through a historic perspective. The elements of alternative news production are traced by the students through various aspects of life, such as media coverage of soaring gas prices in Europe, doping scandals and their coverage in the media, the studies on the international media image of the Russian Federation, the portrayal of alternative media websites in the Middle East.

Through the skills in new alternative media, the programme offers foreign students a unique and valuable opportunity to enhance their professional skills and qualifications while experiencing Russian culture and everyday life in one of the world's most exciting cities. Graduates with a degree from the programme are having ample opportunities to pursue careers in various areas of the media industry, including visual journalism, data journalism, storytelling, production, and newsroom management. They are also prepared to work in educational and scholarly institutions both in Russia and abroad. These methods of teaching new alternative media can be easily projected to work with practicing journalists in news channels and information agencies.

CONCLUSION

Amid the current wave of fake news, misinformation, and Artificial Intelligence (AI) tools that helped to make these happen (and at the same time helped combat them) (Hussein & Hejase, 2022), an urgent need for highly informed, professional, and well-prepared

graduates are needed in the different new media facilities and broadcast rooms. For example, Alexey Nikolov (2023), the Creative Supervisor in the new Master's program "International News Production" asserts and stresses, in his YouTube presentation, that Media organizations are not finding in the new graduates "the right skills for the job as well as not prepared well with the innovative set of tools needed nowadays." This paper aimed to shed light on the continuous changes in requirements for Media students and professionals, especially in the area of alternative media. Based on the facts within this paper, the new program provides motivation for Academic Institutions of Higher Education to follow suit and be creative in cultivating students with innovative competencies and critical thinking practices to be able to debunk cliches, discover fake news, and deal with misinformation smartly equipped with the current innovative technologies to do so.

Note: *This paper has been published in the Journal of Business Theory and Practice, 11 (3), 2023*

References

Anderson, P. (2007, February) 'What is Web 2.0? Ideas, technologies, and implications for education.' JISC Technology & Standards Watch. Available at: http://21stcenturywalton.pbworks.com/f/What%20is%20Web%202.0.pdf (Accessed: 4 April 2023)
Andersson P. Steedman J. (eds) (2002) 'Inside magazines: independent pop culture magazines.' Amsterdam: BIS

Atton, C. (2002a) 'Alternative media'. London: Sage. doi: http://dx.doi.org/10.4135/9781446220153 Available at: https://comunepersoal.files.wordpress.com/2011/02/alternative-media-chris-atton.pdf (Accessed: 5 April 2023)

Atton, C. (2002b). News Cultures and New Social Movements: Radical Journalism and the Mainstream Media // Journalism Studies. New York.

Bailey, O.G., Cammaerts, B. and Carpentier, N. (2008) 'Understanding Alternative Media' Maidenhead: Open University Press.

Bessant, J. (2014) 'Democracy bytes: New media, new politics, and generational change'. London: Palgrave Macmillan.

Anderson, P. (2007, February) 'What is Web 2.0? Ideas, technologies, and implications for education.' JISC Technology & Standards Watch. Available at: http://21stcenturywalton.pbworks.com/f/What%20is%20Web%202.0.pdf (Accessed: 4 April 2023)

Andersson P. Steedman J. (eds) (2002) 'Inside magazines: independent pop culture magazines.' Amsterdam: BIS

Atton, C. (2002a) 'Alternative media'. London: Sage. doi: http://dx.doi.org/10.4135/9781446220153 Available at: https://comunepersoal.files.wordpress.com/2011/02/alternative-media-chris-atton.pdf (Accessed: 5 April 2023)

Atton, C. (2002b). News Cultures and New Social Movements: Radical Journalism and the Mainstream Media // Journalism Studies. New York.

Bailey, O.G., Cammaerts, B. and Carpentier, N. (2008) 'Understanding Alternative Media' Maidenhead: Open University Press.

Bessant, J. (2014) 'Democracy bytes: New media, new politics, and generational change'. London: Palgrave Macmillan.

Chomsky, N. (1989) 'Necessary illusions: thought control in democratic societies.' Boston, MA: South End Press

Deutsch, J. (2022, March 2) 'RT, Sputnik Content Officially Banned Across European Union'. Bloomberg. Available at: https://www.bloomberg.com/news/articles/2022-03-02/rt-sputnik-content-officially-banned-across-european-union#xj4y7vzkg (Accessed: 8 April 2023)

Dmitriev, O. (2017) 'The Role of Global Alternative News Outlets in a Modern Media Environment: Visual Aspect'. *Коммуникации. Медиа. Дизайн* [Communications. Media. Design], 2(1), 45-51.

Fuchs, C. (2010). Alternative Media as Critical Media. *European Journal of Social Theory*, 13(2), 173–192. https://doi.org/10.1177/1368431010362294

Habermas, J. (2006) 'Moral consciousness and communicative action'. (2nd ed.). Saint Petersburg: Science.

Hashmi, M.A. (2014) 'Al Jazeera: A reversal of perspective'. *Kellogg/Medill Northwestern*. Available at: https://web.media.mit.edu/~a_hashmi/portfolio/audience_report_al_jazeera_ali_hashmi_medill.pdf (Accessed: 8 April 2023)

Hejase, A.J. and Hejase, H.J. (2013) 'Research Methods: A Practical Approach for Business Students,' (2nd edition). Philadelphia, PA, USA: Masadir Incorporated.

Hodgson, K. (2017, July) 'Immersive storytelling: How 360-degree video storytelling is helping to redefine journalism.' (Master of Arts Thesis). Communications and Technology, Faculty of Extension, University of Alberta, Canada.

HSE. (2023a) '*About HSE University*'. Available at: https://www.hse.ru/en/info/ (Accessed: 9 April 2023)

HSE. (2023b) '*Master's Programme: International News Production*'. Available at: https://www.hse.ru/en/ma/innews/ (Accessed: 9 April 2023)

HSE. (2023c) '*Advantages of the Programme.*' Available at: https://www.hse.ru/en/ma/innews/ (Accessed: 9 April 2023)

Hussein, F. and Hejase, H.J. (2022) 'Artificial Intelligence and Fake News.' *Žurnalistikos Tyrimai,* 16, 39–71. DOI: 10.15388/ZT/JR.2022.6 https://doi.org/10.15388/ZT/JR.2022.2

Ivanichev, I. (2019, May 8) 'Telegram audience 2019: results of a study of 82,000 profiles.' [Blog]. *TexTerra.ru.* Available at: https://texterra.ru/blog/auditoriya-telegram-rezultaty-issledovaniya-anket.htm (Accessed: 6 April 2023) [In Russian].

Khovanskaya, A. (2013, June 3) 'Russia Today TV channel hits one billion views on YouTube'. Available at: https://www.kp.ru/daily/26085.5/2988301/ (Accessed: April 4, 2023)

Lewis, P. (Ed.) (1993) 'Alternative media in a contemporary social and theoretical context'. In P. Lewis (Ed.) *Alternative Media: Linking Global and Local*. Reports and papers on mass communication No. 107. (pp. 11-14). UNESCO.

Mourtada, R. and Salem, F. (2014) '*Citizen engagement and public services in the Arab world: The potential of social media.*' Arab Social Media Report, 6th edition. Available at: https://mbrsgcdn.azureedge.net/cmsstorage/mbrsg/files/e9/e9ea2ac8-13dd-4cd7-9104-b8f1f405cab3.pdf (Accessed: 6 April 2023)

Nikolov, A. (2023) '*International News Production*'. Available at: https://www.youtube.com/watch?v=lNPW0RTtxgs (Accessed: 10 April 2023)

Ofcom (2019, January) '*THE OFCOM BROADCASTING CODE (with the Cross-promotion Code and the On Demand Programme Service Rules).*' Available at: https://www.ofcom.org.uk/__data/assets/pdf_file/0016/132073/Broadcast-Code-Full.pdf (Accessed: 7 April 2023).

Ponsford, D. (2010, June 7) 'CNN breaks Ofcom rules on news sponsorship.' Available at: https://pressgazette.co.uk/publishers/broadcast/cnn-breaks-ofcom-rules-on-news-sponsorship/ (Accessed: 7 April 2023)

RT. (2020, January 29) 'RT — THE FIRST TV NEWS NETWORK IN THE WORLD TO HIT 10 BLN VIEWS ON YOUTUBE.' Available at: https://www.rt.com/about-us/press-releases/rt-youtube-10-billion-views/ (Accessed: 4 April 2023)

Silverstone, R. (1999) '*Why Study the Media?*' London: Sage

Sweney, M. (2020, March 27) 'RT loses challenge against claims of bias in Novichok reporting'. *The Guardian Weekly*. Available at: https://www.theguardian.com/media/2020/mar/27/rt-loses-challenge-bias-novichok-reporting-russia-today-ofcom (Accessed: 8 April 2023)

Turner, J. and Saber, D. (2021, February) 'Understanding factors and barriers to alternative media development in emerging economies: Learning from the Check Global project.' *First Monday*, 26(2). Available at: https://firstmonday.org/ojs/index.php/fm/article/download/11370/10066 Doi: https://dx.doi.org/10.5210/fm.v26i2.1137

Vinichenko V.M. (2014) 'The Al Jazeera Phenomenon in the Middle East and Global Information Markets'. *Issues of journalism, pedagogy, linguistics, UDC 070.* Available at: https://cyberleninka.ru/article/n/fenomen-al-dzhaziry-na-blizhnevostochnom-i-globalnom-informatsionnyh-rynkah (Accessed: 8 April 2023)

Watson, Z. (2017) 'VR for News: The New Reality?' Available at: https://www.digitalnewsreport.org/publications/2017/vr-news-new-reality/ (Accessed: 4 April 2023)