

Communication, digital media and future: new scenarios and future changes

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edited by

Elisabetta Gola, Andrea Volterrani, Fabrizio Meloni



RESOCONTI /1

This volume collects a set of meaningful full papers of Medcom2020+1 international conference, which has been organized by the University of Cagliari, University Hospital of Cagliari, and University of Tor Vergata (Rome). The conference has been held online from the 17th to 19th June 2021, on "Communication, digital media and future: new scenarios and future changes", which is also the title of this volume. The general topic has been divided in 8 sessions which range from social media to screen culture, from media education to social communication, politics and multiculturalism. The general topic has been divided in 8 sessions which range from social media to screen culture, from media education to social communication, politics and multiculturalism. The topics also embrace reflections on the experiences after-pandemic, that had a strong impact and caused many changes on communication and society. The proceedings of the conference include a selection of 22 papers out of the about one hundred talks from the conference.

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The cover image represents the extended communication scenarios
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Preface

Elisabetta Gola¹, Fabrizio Meloni², Andrea Volterrani³

¹University of Cagliari, ²University Hospital of Cagliari, ³University of Rome "Tor Vergata"

This volume collects a set of meaningful full papers of Medcom2020⁺¹ international conference, which has been organized by the University of Cagliari, University Hospital of Cagliari, and University of Rome (Tor Vergata). The conference has been held online because of the COVID-19 outbreak.

Medcom2020, the VI world conference on "Media and Mass communication, indeed, was programmed for 28-30 May 2020, but after the Italian government undertook the lockdown in March, the 9th, it was immediately clear that it would be impossible to organize such a big conference: we received around 400 abstracts and we invited about 15 keynote speakers from all over the world around the theme "Communication and Cultural Change". Medcom2020 conference aimed at providing a platform for academics and researchers to share their collective wisdom on the implications, opportunities and challenges of communication in an interconnected world. In August 2020 we decided to postpone the conference to 17th – 19th June 2021. In deciding this delay, we slightly changed the general topic, which became: "Communication, digital media and future: new scenarios and future changes", which is also the title of this volume. We called it Medcom2020⁺¹: with this name we wanted to enhance Medcom2020 conference including the topics (and the relative accepted abstracts) of Medcom2020 and widen the gaze, embracing reflections on the experiences after-pandemic, that had a strong impact and caused many changes on communication and society.

The new keywords integrated the theme of communication and cultural change with a look at how communication, technologies, digital media have contributed to define the new scenarios and how they will contribute to the construction of future scenarios.

Medcom2020 conference had been designed to organize the talks by 10 parallel sessions, while in the enhanced 2020⁺¹ version we kept the same 10 panels (1. Social media: impact, future, issues 2. Theory of Communication, languages and media, 3. Public sector communication, 4. Politics, ethics and communication, 5. Health communication, emergency and environmental studies, 6. Journalism, 7. Multiculturalism, cultural studies, youth and gender communication, 8. Media Education, 9. Media and corporate, 10. Screen cultures), but in each one we added a specific point devoted to the impact of the COVID-19 pandemic. Every panel had a chair and a scientific committee (see tables 1 and 2).

In this volume we selected some representative papers for some of the original areas. We want to underline, though, that the selection has been made possible by the great participation and discussion during the conference. The **first session**, about "Social media and online journalism: impact, future, issues", collects many papers which address different issues on the communication media sphere. Some of the papers examine how social media have revolutionized the ways of communicating and the ways of interacting among individuals. Other papers focus on dynamics of digital transformation and try to show how web analytics influence journalism and gatekeeping.

The **second session** covers the large area of “Public sector communication”, which has considerably changed in recent years. The arrival of new media, also in this case, has opened up new scenarios and thrown down new challenges. Public communication can now really be citizen-friendly. Papers in this session highlight the cultural changes but also the challenges related to digitalization.

The **third session** focuses on a very important topic in a society deeply mediatized: “Politics, ethics and communication”. The papers under this topic examine how social media affect the political participation and the possibility of democracy. Social participation in movements, and democratic and political participation, indeed, are both closely linked to the opportunities and problems of digital media and, in particular, of social media. While the communication between politicians and citizens is (or can be) more direct, the social responsibility of the communicator is still relevant for democracy.

The **fourth session** is devoted to “Multiculturalism, cultural studies, youth and gender communication”. Relations between different cultures (national, ethnic, generational, gender) represent the present and the future of the media in hybrid, fragmented and complex societies. Traditional media and government are not the only voice about these issues, and minorities and communities of interest use social media to raise awareness for them.

Technology strongly affects learning and teaching activity by the cognitive artifacts, which mediate the world understanding process: new frameworks are discussed in the papers and new methodologies are proposed in the **fifth session** “Media education”. From metaphors to storytelling, from engagement strategies to contrasting hate speech, the papers outline the changes in education roles and professionals.

Economic development in a global society acts through and with the decisive support of digital media and mainstream media. In the **sixth session**, “Media and corporate”, the papers tackle some representative issues of this strong relationships: the different ways in which media, business, industries etc. are involved and related with communication are shown through some representative examples.

After the “turning points” that marked the theories of the late twentieth century in visual culture, many interesting themes need today to be reconsidered. In the **seventh session**, which is dedicated to “Screen cultures”, two case studies show the function of filmic narratives in construction of modern social identity.

The **last session** contains some reflections about “Communication and Covid-19 pandemic”, a topic that we have added to every panel in the conference. It is a theme that still generates debate, because of the importance of communication in crisis and emergency.

All the chairs of the sessions gave a great contribution in the organization of the conference and we want thank all of them and the scientific committee for their support and work that make the conference successful.

Last but not least, a special thank goes to the keynote speaker, who accepted the invitation despite all the difficulties due to the pandemic situation: Mohan J Dutta (Massey University, New Zealand), Vilma Luoma-aho (University in Jyväskylä, Finland), Rosalind Jill (University of London), Shannon A. Bowen (University of South Carolina, USA), Janet McCabe (University of London), Mario Pireddu (University of Tuscia), Phillip Martin (Senior Investigative Reporter, WGBH Boston, USA), Christopher Fenner (University of West Florida), Michele Sorice (LUISS University). See table 3 for information about the titles of their interesting talks.

The selection of papers collected in this volume show that communication and media processes have become more central to our daily lives than ever before. In the hope that it will be possible to build other opportunities for meeting and discussion on media and communication, these proceedings are a first contribution to reflection and debate.

Table 1. List of Conference Panel chair:

<p>01. Social Media: Impact, Future, Issues Giovanni Boccia Artieri (University of Urbino “Carlo Bo”, Alessandra Migliozi (SMM Ministry of public education), Gianluigi Tiddia (alias Insopportabile, influencer)</p>
<p>02. Theory of Communication, Languages and Media Francesca Ervas (University of Cagliari) and Daniela Viridis (University of Cagliari)</p>
<p>03. Public Sector Communication Alessandro Lovari (University of Cagliari)</p>
<p>04. Politics, Platforms and Participation Michele Sorice (LUISS University, Rome)</p>
<p>05. Communication, Emergency and Environmental Studies Maria Grazia Rossi (University of Lisbon: Universidade Nova)</p>
<p>06. Journalism Lorenzo Paolini (Director of <i>L'Unione Sarda</i>) and Antonio Rossitto (Director of <i>Panorama</i> weekly journal)</p>
<p>07. Multiculturalism, Cultural Studies, Religion, Youth and Gender Communication (Multiculturalism: Gaia Peruzzi, University of Rome “Sapienza”; Gender: Elisa Giomi, University of Rome 3 ; Religion Studies: Fabio Tarzia, University of Rome “Sapienza”)</p>
<p>08. Media Education Alessio Ceccherelli (University of Rome “Tor Vergata”)</p>
<p>09. Media and Corporate Communication Giuseppe Melis (University of Cagliari)</p>
<p>10. Screen Cultures Emiliano Ilardi (University of Cagliari)</p>
<p>11. Communication and Covid-19 Pandemic Elisabetta Gola (University of Cagliari), Andrea Volterrani (University of Rome “Tor Vergata”), Fabrizio Meloni (University Hospital of Cagliari)</p>

Table 2. List of Scientific Committee, constituted by scholars and experts selected for their great knowledge and competence of one of more topics for each panel. In this way we aim at guaranteeing the high quality and fairness of the reviewing process.

<p>1. Social media: impact, future, issues</p> <p>Hanife Aliefendioğlu (Eastern Mediterranean University, Turkey) Giovanni Boccia Artieri (University of Urbino, Italy) Alberto Berretti (University of Rome “Tor Vergata”, Italy) Alessandro Chessa (CEO and Data Scientist Linkalab, Italy) Francesca Comunello (University of Rome “Sapienza”, Italy) Amira El-Deeb (American University, Egypt) Fabio Giglietto (University of Urbino, Italy) Fauziah Hassan (University Sains Islam Malaysia, Malaysia) Jeyasushma V (Xiamen University Malaysia, Malaysia) Alessandra Migliozi (Journalist, social media manager, Italy) Lilia Raycheva (The St. Kliment Ochridsky Sofia University, Bulgaria) Gianluigi Tiddia (Influencer, Italy)</p>	<p>2. Theory of Communication, languages and media</p> <p>Mustak Ahmed (University of Rajshahi, Bangladesh) Marianna Bolognesi (University of Bologna, Italy) Emanuela Campisi (University of Catania, Italy) Alessio Ceccherelli (University of Rome “Tor Vergata”, Italy) Anna Maria Contini (University of Modena and Reggio Emilia, Italy) Francesca Ervas (University of Cagliari, Italy) Ivone Ferreira (Universidade Nova de Lisboa, Portugal) Antonietta Marra (University of Cagliari, Italy) Michele Pandi (University of Genoa Italy) Francesca Piazza (University of Palermo, Italy) Giovanni Ragone (University of Rome “Sapienza”, Italy) Maria Grazia Rossi (Universidade Nova de Lisboa, Portugal) Micaela Rossi (University of Genoa, Italy) Franciscu Sedda (University of Cagliari, Italy) Elena Semino (University of Lancaster, UK) Gerard Steen (University of Amsterdam, Netherlands) Pietro Storari (University of Cagliari, Italy) - Prof. E.E. Scheimer (Royal Roads University, Canada) Astrid Vandendaele (Ghent University, Belgium) Luca Vargiu (University of Cagliari, Italy) Daniela Francesca Virdis (University of Cagliari, Italy)</p>
<p>3. Public Sector Communication</p> <p>Daniele Bellasio (University of Milan “Cattolica”, Italy) Nicola Bonaccini (SNA, Italy) Shannon A. Bowen, (University of South Carolina, US) Lucia D’Ambrosi (University of Macerata, Italy) Gea Ducci (University of Urbino) Anil K Kaya (Eastern Mediterranean University, Turkey) Ülfet Kutoğlu Kuruç (Eastern Mediterranean University, Turkey) Vilma Luoma-aho (University of Jyväskylä, Finland) Melina Mahpuz (Universiti Teknologi MARA, Malaysia) Letizia Materassi (University of Florence, Italy) Alessandra Migliozi - (journalist, social media manager, Italy) Baruck Okal Opiyo (Eastern Mediterranean University, Turkey) Rosanna Romano Chief of Press Officer Sardinia Regional Council Michele Sorice (Luiss, Rome, Italy)</p>	<p>4. Politics, platforms and participation</p> <p>Laura Iannelli (University of Sassari, Italy) Nuurrianti Jalli, Universiti Teknologi MARA, Malaysia Raffaele Lombardi (University of Rome “Sapienza”, Rome) Chiara Moroni (University of Tuscia) Gaia Peruzzi (University of Rome “Sapienza”, Italy) Marco Pignotti (University of Cagliari, Italy) Dana Popescu (University of Lumiere 2, Lyone, France) Savera Mujib Shami, University of the Punjab, Pakistan Michele Sorice (Luiss, Rome, Italy) Augusto Valeriani (University of Bologna, Italy)</p>

<p>5. Health communication, emergency and environmental studies</p> <p>Sarah Bigi (University of Milan “Cattolica”, Italy) Mohan J Dutta (Massey University) Maurizio Galluzzo (IUAV, Italy) Jeanine Guidry (Virginia Commonwealth University, USA) Sharmila Kayal, Adamas University, India Andrea Mameli (CRS4, Italy) Hermine Penz (University of Graz, Austria) Maria Grazia Rossi (Universidade Nova de Lisboa, Portugal) Elena Semino (University of Lancaster)</p>	<p>6. Journalism</p> <p>Hanife Aliefendioğlu (Eastern Mediterranean University, Turkey) Lakhdar Chadli (Canadian University Dubai, UAE) Wan Norshira Wan Mohd Ghaza (International Islamic University Malaysia, Malaysia) Fauziah Hassan (University Sains Islam Malaysia, Malaysia) Sharmila Kayal (Adamas University, India) Jeyasushma V (Xiamen University Malaysia, Malaysia) Luca Lecis (University of Cagliari, Italy) Phillip WD Martin (Senior Investigative Reporter for WGBH News, Boston, USA) Marcus Messner (VCU, USA) Lorenzo Paolini (Editorial Director of newspaper “L’Unione Sarda”, Italy) Anna Piras (Director of Rai TRE Sardegna, Italy) Lilia Raycheva (The St. Kliment Ochridsky Sofia University, Bulgaria) Antonio Rossitto (Journalist at “Panorama”, Italy) Christian Ruggero (University of Rome “Sapienza”, Italy) Carlo Sorrentino (University of Florence, Italy)</p>
<p>7. Multiculturalism, cultural studies, religion, youth and gender communication</p> <p>Francesco Bachis (University of Cagliari) Roberta Bartoletti (University of Urbino, Italy) Marco Bruno (University of Rome “Sapienza”, Italy) Cristina Cabras (University of Cagliari, Italy) Valentina Cuzzocrea (University of Cagliari, Italy) Francesca Ervas (University of Cagliari) Elisa Giomi (University of “Roma TRE”, Italy) Giuliana Mandich (University of Cagliari, Italy) Gaia Peruzzi (University of Rome “Sapienza”, Italy) Lilia Raycheva (The St. Kliment Ochridsky Sofia University, Bulgaria) Fabio Tarzia (University of Rome “Sapienza”, Italy)</p>	<p>8. Media Education</p> <p>Andrea Dresseno (President of Italia Videogame Program (IVIPro) e responsabile dell’Archivio Videoludico di Bologna) Stefano Federici (University of Cagliari, Italy) Beatrice Ligorio (University of Bari, Italy) Stefania Manca (CNR, Institute for Education Technology, Genoa, Italy) Mariasosaria Nardone (University of Bologna, Italy) Mario Pireddu (University of Rome, Roma Tre, Italy) Marco Pitzalis (University of Cagliari) Mike Megrove Reddy (University of Zululand, South Africa) Marco Scarcelli (IUSVE Venezia) Simona Tirocchi (University of Turin, Italy)</p>

9. Media and Corporate Communication	10. Screen cultures
<p>Daniele Bellasio (University of Milan “Cattolica”, Italy)</p> <p>Paolo Costa (University of Pavia and founding partner of Spindox, Italy)</p> <p>Christopher Fenner (University of West Florida, USA)</p> <p>Anil K Kaya (Eastern Mediterranean University, Turkey)</p> <p>Jeong-Nam Kim (University of Oklahoma, USA)</p> <p>Ülfet Kutoğlu Kuruç (Eastern Mediterranean University, Turkey)</p> <p>Alberto Marinelli (University of Rome “Sapienza”, Italy)</p> <p>Giuseppe Melis Giordano (University of Cagliari, Italy)</p> <p>Siti Ezaleila Binti Mustafa (University of Malaya, Malaysia)</p> <p>Lucia Porcu (University of Granada, Spain)</p> <p>Simone Sangiorgi (partner Jellyfish and CEO Kippy, Italy)</p>	<p>Mustak Ahmed (University of Rajshahi, Bangladesh)</p> <p>Alfonso Amendola (University of Salerno, Italy)</p> <p>Andrea Balzola (Screen player, movie Director, director of the School of New Technologies of Accademia di Belle Arti di Brera, Italy)</p> <p>Davide Benvenuti (Nanyang Technological University, Singapore)</p> <p>Ivan Blecic (University of Cagliari, Italy)</p> <p>Sergio Brancato (University of Naples, Italy)</p> <p>Donatella Capaldi (University of Rome “Sapienza”, Italy)</p> <p>Lakhdar Chadli (Canadian University Dubai, UAE)</p> <p>Wang Changsong (Xiamen University Malaysia)</p> <p>Emiliano Chirchiano (University of Naples, Italy)</p> <p>Fabio D’Andrea (University of Perugia, Italy)</p> <p>Amira El-Deeb (American University, Egypt)</p> <p>Antioco Floris (University of Cagliari, Italy)</p> <p>Giovanni Fiorentino (University of Tuscia)</p> <p>Sebastian Grobler (Ostwestfalen-Lippe - University of Applied Sciences and Arts, Germany)</p> <p>Sharmila Kayal (Adamas University, India)</p> <p>Tatiana Mazali (Politecnico di Torino, Italy)</p> <p>Binta Kasim Mohammed (Kaduna State University, Nigeria)</p> <p>Simone Mulargia (“Sapienza” University of Rome)</p> <p>Siti Ezaleila Binti Mustafa (University of Malaya, Malaysia)</p> <p>Nevina Satta (CEO Fondazione Sardegna Film Commission, Italy)</p> <p>E.E. Scheimer (Royal Roads University, Canada)</p>

Table 3. List of Keynote speakers and the titles of their talks

<p>Mohan J Dutta (Massey University, New Zealand) <i>Addressing health inequalities through communication activism: A culture-centered approach</i></p>
<p>Vilma Luoma-aho (University of Jyväskylä, Finland) <i>Citizens from Venus, Authorities from Mars - Public Sector Communication.</i></p>
<p>Rosalind Jill (University of London) <i>Posting a perfect life: Affect, social media and fear of getting it wrong</i></p>
<p>Shannon A. Bowen (University of South Carolina, USA) <i>Ethical responsibilities of communicators during crises and pandemics</i></p>
<p>Janet McCabe (University of London, UK) <i>Divided Bodies, Crossings Borders, Transnational Encounters: towards a feminist approach of transnational TV studies</i></p>
<p>Mario Pireddu (University of Tuscia) <i>The space-time of learning. Education, networks and media ecologies</i></p>
<p>Phillip Martin (Senior Investigative Reporter, WGBH Boston, USA) <i>Investigating right wing extremism in Trumpian America and the limits of traditional journalism</i></p>
<p>Christopher Fenner (University of West Florida, USA) <i>The Mediated Construction of Reality. How to Understand and Analyze The Role of The Media?</i></p>
<p>Michele Sorice (LUISS University, Italy) <i>Political platforms and communication</i></p>

SECTION: 1:

SOCIAL MEDIA: IMPACT, FUTURE, ISSUES

Media, Users and Health Online: The Propagation Dynamics of Digital Information on Facebook and the Role of the Online Gatekeeper *Google News Italia*

Gea Ducci, Giovanni Boccia Artieri, Mario Corsi, Fabio Giglietto, Fabrizio Manattini¹

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Abstract

In the network society, how many health topics are generated and disseminated by online media, and which ones? What impact does online media have on users, in terms of reactions and levels of engagement? These research questions were investigated in the study illustrated in this full paper, the theoretical background of which consists of literature on Health Communication, on the e-patient phenomenon and on the role played by information systems in the dissemination of health information in digital environments (with consequent risks of disinformation and misinformation). The intertwining between digital and traditional media and the proliferation of user-generated content affects the production, circulation and consumption of health news in the connected society.

The main purpose of our study is to identify the role played by an online gatekeeper, in this case Google News Italia, in the process of influencing online health agenda setting.

The methodology adopted is quantitative and consists of the collection and thematic analysis of the news that Google News Italia aggregates in the area "Health", and the impact that this activity has on Facebook users, in terms of engagement.

The study's principal results indicate that a relevant role for online gatekeepers such as Google News has emerged in the digital public spheres relating to health. The Facebook user's interest is focused also on those health news topics that can help to increase health literacy. At the same time, user engagement (in the shape of comments) is greater when the news topics are more "popular" and emotionally engaging.

Keywords: Health communication, social media, agenda setting, online gatekeeping, e-patient; engagement.

Introduction

In recent years, public discourse on the issue of health has assumed increasing centrality in the connected society. A multiplicity of actors (organizations, the media, citizens) inhabit digital public spheres, helping to fuel the public discourse on health and to make it increasingly dense, articulated and fragmented.

In this scenario, it is interesting to study which criteria are adopted by the information system in order to intercept and catch the attention of internet and social media users. This paper focuses on the role played by an online gatekeeper such as Google News in the process influencing online health agenda setting. We briefly illustrate a study focused on the collection and thematic analysis of the news that Google News Italia aggregates in the category of health, and on the evaluation of the impact that this activity produces on Facebook users, in terms of engagement.

1. The Theoretical Background: Health News and Media Ecosystem Transformations

Hybrid and convergent media ecosystems (Boccia Artieri 2012; Jenkins et al. 2013) have changed the citizen's health information scouting in the connected society. In the new digital environment, sources for information about health and wellness are more numerous and various (Bradley et al. 2013; DuPrè 2014; Rubinelli et al. 2010; Thompson et al. 2011; Lovari 2017): non only do information professionals and the traditional media (mainstream) express

their voice and seek visibility in the public spheres, but so do individuals and organizations, institutions and healthcare professionals, wellness centres, pharmaceutical companies (Ducci 2020), etc. Health communication has become more widespread, generalized and ubiquitous (Ducci and Mazzoli 2018).

In this contest, the “e-patient” (Ferguson 2007; Affinito and Ricciardi 2016) researches, generates and shares information and experiences online and, in some cases, s/he practices “self-help” (Cipolla, Maturo 2014; Ducci 2020; DuPrè 2014; Lovari 2017; Lupton 2013 and 2016; Santoro 2012).

Many scholars have highlighted the opportunities and risks associated with these practices: on the one hand, it enables citizen empowerment (Cohen 2010) and an increase in health literacy. On the other hand, however, there is the risk of disinformation and misinformation (Giglietto et al. 2019; Lazer et al., 2018), which institutions must try to counter – especially in a health emergency like the Covid-19 pandemic (Lovari and Righetti 2020; PAHO 2020). Moreover, the “dr. Google” or “dr. Web” phenomenon has grown (Ingrosso 2013): patients tend to visit the web prior to a medical examination, with self-diagnostic effects. In this scenario, it is interesting to reflect on the criteria that influence agenda setting and on the transformations in gatekeeping concerning online health news.

Health is a relevant category in the context of the news, and one that helps to build essential knowledge and ensure lively public debate on the subject (Hodgetts et al. 2008). The media offer frames to interpret issues on the agenda in the public debate, influencing knowledge, attitudes and behaviour (Walsh, Childers 2016). In this sense, the media both shape and reflect public discourses on health (Malone et al. 2000). However, while the mass media offered representations of health issues to their audiences via “top-down” frames and models, with the popularization of social media we have moved to a post-representation of health, in which different voices intersect in the internet’s extremely fluid communication flows (Ducci 2017).

The construction of public discourses on health is therefore affected by transformations in the media ecosystem. The spread of the internet and of social media, which are now part of citizens’ media diets, their intertwining with traditional media and the proliferation of user-generated content all impact on the production, circulation and consumption of health news.

In this new information ecosystem, search engines and social media adopt the role of information hubs and perform gatekeeping functions (Shoemaker and Vos 2009; Sorrentino, Bianda 2013) with selective logics that are different from the traditional ones. These logics combine individual actions – searching, sharing, rating, tagging and reacting to content – with algorithm-based services, including search engines and news aggregators that redistribute and channel online news.

Google News is an online gatekeeper which, operating on institutional and non-institutional online sources, selects and makes visible the topics that make up the health information universe, participating in the construction of the public agenda in different ways. For this reason, it constitutes an interesting object of study to capture the relationship between multiple news sources and online gatekeepers, as well as the impact of news provided by the online gatekeeper in this relationship on users: these questions form the basis of the research that we illustrate here.

It is worth pointing out, moreover, that the analysis of news engagement on social media is the subject of a large and growing literature, which has examined the shape and the structure of user interactions across a range of news sources (Larsson 2018; Kalsnes and Larsson 2019) and newspapers (Al-Rawi 2017; Salgado and Bobba 2019)¹.

2. Aims, Research Questions and Methods

The general aim of this research was to reveal the audience impact of public-agenda production, on the issue of health, when carried out by an online gatekeeper such as Google News

¹ For further information on the study described in this paper, see Ducci, Boccia Artieri, Corsi, Giglietto, Manattini 2021.

Italia. In particular, our goal was to understand which topics covered by Google News Italia, in the Health area, catch the attention of users on social networks, and therefore enter the online public debate.

Specifically, we wanted to explore which types of health content trigger engagement, and of what kind, on Facebook, which remains the most used social network by the Italian population. Moreover, we aimed to investigate how different (institutional and non-institutional) information sources, which make up the inter-media agenda of a gatekeeper like Google News, are reflected online, noting the relationship between types of source and user behaviour.

In particular, we sought to answer to the following research questions:

RQ1: What kind of health topics on Google News Italia have an impact on Facebook? What hierarchies to users impose on issues relating to health?

RQ2: What is the engagement structure on Facebook? Specifically, which news items do users tend to share or comment on most frequently on Facebook?

RQ3: From which sources do these health news items originate?

RQ4: What types of sources produce the health news that gets the most user engagement on Facebook?

To answer these research questions, we adopted a quantitative research method: we collected all health news aggregated by Google News Italia over a nine-month period, from 1 February to 30 November 2019; at the same time, we studied which of the Google News Italia items collected in this way also had an impact on Facebook users, also recording engagement data.

Data collection was carried out through ad hoc software developed by scholars, customizing a platform already used in previous studies (Giglietto et al. 2019). The news database was obtained by querying the Google News Italia RSS feeds every two hours in the categories of health, medicine, mental health, nutrition and fitness.

We queried the Facebook Graph API to collect the number of interactions (reactions, comments and shares) obtained across the entire platform by each article for one week after its publication.

The dataset thus obtained was composed of 12,080 news items. Having eliminated the topics that did not gain any engagement, (e), intended as comments (cm) and shares (cd), the number was reduced to 9,456 records, equal to 78.3% of the total. The subdata set used consisted of the 10% of the news articles that had the highest engagement values: 960 items.

As for the classification criteria of the topics covered by the 960 articles, we created six thematic categories plus one of "others". These were based on the titles of the news items, and on the literature (Peters 1994; Kristiansen, Harding 1984, Pratt, Pratt 2002) as well as the authors' opinions.

Five "judges" (the authors) undertook three training phases, up to a degree of agreement – measure of Alpha Krippendorff (Fleiss 1971): 0.58%, widely significant.

The categories are the following:

1. Healthcare system: news on the organizational world of healthcare and health services, but also health policies, economic aspects, etc.
2. Health service malfunction and malpractice: reports highlighting a lack of health service provision, scandals, corruption, etc.
3. Wellness: Advice, attitudes, behaviors relating to well-being and lifestyles, including diets, nutrition, motor activities, alternative treatments, etc. (from veganism to health advice).
4. Medical science: scientific discoveries relating to medicine, innovative treatments, drugs and the scientific aspects of health.
5. Medical Practice: stories about patient care and related practices.
6. Celebrity: health aspects concerning famous people or news that use statements by politicians as "characters".
7. "Others": aspects that were unrelated to the previous categories.

3. Results: online health news items, Facebook user engagement and types of information source

The key findings related to the four research questions are as follows.

Regarding user agenda setting (RQ1), not considering the “others” category, it emerges first that the most frequent thematic categories are “medical science” (18.5%) and “health systems” (18.4%), while the least frequent category is “celebrity” (5.3%).

Tab. 1 – Percentage of health news with higher Facebook engagement (n.960), classified in thematic categories

Category	Freq. (%)
Medical science	18.5
Healthcare system	18.4
Health service malfunction	10.8
Wellness	10.0
Medical practice	8.9
Celebrity	5.3
“Others”	28.1
Total	100.0

We evaluated the engagement structure (RQ2) in relation to the two types of interaction: comments and shares, and, in terms of frequencies, “medical practice” obtains the lowest number of comments, “celebrity” the highest number, as the table below shows (tab. 2).

With regard to sharing, the lowest value came from “health system”, while, again, “celebrity” has the highest, followed by “medical malfunction/malpractice”. As for the measure of comments, the lowest value for engagement was for the category “medical practice”, while “celebrity” was confirmed as first.

Tab. 2 Average values of comments, shares and engagement measures referring to the thematic categories. Absolute and percentage values ().

Category	Comments	Shares	Engagement
Healthcare system	331 (46.1%)	387 (53.9%)	563
Health service malfunction	753 (41.9%)	1045 (58.1%)	1380
Wellness	357 (43.9%)	456 (56.1%)	631
Medical science	219 (35.2%)	403 (64.8%)	461
Medical practice	183 (29.7%)	434 (70.3%)	443
Celebrity	1158 (49.7%)	1174 (50.3%)	1862
Total average	412 (42.3%)	563 (57.7%)	750

We tested whether one practice is prevalent over another for each thematic category, using a statistical association between two measures, cogradation coefficient (Chiorri 2010) and with a comparison index (Ic), with values -1 per cm = 0 (no comment) and +1 for cd = 0 (no sharing): the measure of which increases with the relative growth of comments at the expense of shares.

The values of the global measure (Ic^*) indicate a “polarization” of the categories with regard to the relative contributions of comments and shares to measures of engagement. In particular, at one pole we find “technical” topics relating to medical practice and medical science, characterized by lower comments. At the opposite pole, we find the celebrity category which has an “excess” of comments.

Tab. 3. Values of the indexes of global (Ic^) and average (Ic) comparisons, between comments and shares referring to the different categories identified*

Category	Ic^*	Ic
Healthcare system	0.18	-0.02
Health service malfunction	0.09	-0.11
Wellness	0.13	-0.07
Medical science	-0.05	-0.03
Medical practice	-0.17	-0.03
Celebrity	0.24	-0.11
General	0.12	-0.05

For all categories, there are always fewer comments than shares. As we know, commenting requires more time, deeper reflection and greater knowledge of the topics when compared to the simpler act of sharing.

The prevalence of categories that we can define as “emotional”, both in comments and in shares, suggests a greater propensity to become involved in news items which have a more immediate impact and which do not require the user to waste reflective time or specific knowledge on the content.

This means that the emotional or technical (rational) nature of news topics could determine the user engagement (comments / shares), implying a distinction between those who are merely interested in a topic and those who also consider themselves competent on it, and are therefore more willing to expose themselves to its discussion.

Regarding the analysis of information sources (RQ3), our results revealed that health news were published by 308 different sources. 1% of the most productive sources ($N = 3$) generated 17% of the news examined.

We analyzed the subset of sources that produced at least seven articles (one for each category) on the topic analyzed ($N = 25$). Overall, these sources produced 460 news items, equivalent to about half of the total number of the news items examined.

The topics were provided by a varied typology of sources, dominated by news agency sites (Ansa) and national newspapers.

Tab. 4. Information sources and news produced (subset of sources that have at least seven articles analyzed, equivalent to the number of categories)

Information source	Number of news examined	Average Ic by source
www.ansa.it	70	-0.04
www.repubblica.it	46	-0.04
www.stateofmind.it	45	-0.14
www.ilfattoquotidiano.it	38	0.07
www.ilmessaggero.it	29	-0.02

Information source	Number of news examined	Average Ic by source
www.quotidianosanita.it	26	-0.18
www.corriere.it	19	-0.12
www.wired.it	17	-0.02
www.vanityfair.it	15	-0.10
www.ilgiornale.it	15	-0.11
www.ilsole24ore.com	13	0.00
www.adnkronos.com	13	0.28
www.versiliatoday.it	12	-0.14
www.lastampa.it	12	-0.37
www.affaritaliani.it	10	-0.22
www.ragusanews.com	9	-0.18
www.fanpage.it	9	-0.37
dilei.it	9	0.05
www.today.it	8	0.19
www.quicosenza.it	8	-0.13
www.ilrestodelcarlino.it	8	-0.06
tg24.sky.it	8	-0.06
www.quotidianodiragusa.it	7	-0.10
www.nursetimes.org	7	0.07
www.iodonna.it	7	-0.09

Overall, with regard to the distribution of topics, the category “medical science” is much more heavily represented in this subgroup than across all the news items analyzed (30.2% against 18.5%).

Observing the behaviour of the individual sources, this trend is confirmed with Ansa, La Repubblica, State of Mind and Il Corriere della Sera: more than half of their articles were classified in the “medical science” category. The majority (69.2%) of the articles published by Quotidiano Sanità were categorized as “healthcare system”. Il Giornale and Fan Page, on the other hand, dealt more than the other newspapers with the cate of “health service malfunction” (40% and 44% respectively). Alongside these two national newspapers, the local paper Qui Cosenza also dedicated half of its articles to this category. The two local papers from the city of Ragusa, on the other hand, dealt with health from the perspective of “medical practice” in over a third of the articles examined, compared to an average of less than 10% for the other newspapers. Finally, health news is reported through the lens of “celebrities” in more than 4 of 6 articles in Vanity Fair.

Applying the same criterion used previously to analyze the ratio of comments/shares of the individual topics, the trend whereby shares prevail slightly over comments is confirmed here, too (RQ4). The topics studied were therefore covered by a varied typology of sources that were nevertheless dominated, in terms of productivity, by the websites of news agencies.

The volume of engagement with each source has a high rate of internal variability, suggesting that the specificity of news articles influence engagement more than its source. This hypothesis is further supported by the analysis of engagement structure in relation to the type of article published.

4. Conclusions

Analysis of the research results reveal that, of all the news items published by Google News Italia between February and November 2019, those on Facebook that obtained at least one interaction from users constituted a high percentage (78.4%). It can therefore be assumed that the health agenda setting process operated by the online gatekeeper considered here tends, through news aggregation, to produce a significant impact on the perception of the relevance of the issues for users in the discursive spaces of social networks.

At the same time, users are presented with a large quantity of news items produced by a variety of sources, in which they can intervene in significant ways, expressing reactions through comments and shares, and thus further feeding the debate on health in the online public sphere.

On the basis of the methodological criteria adopted and the thematic categories we created and employed to classify the selected news items, it is possible to make a set of preliminary conclusions in line with our research questions, highlighting that:

- The topics of scientific categories (e.g., the healthcare system and medical sciences) are the most recurrent on Google News Italia; these have an impact on users on Facebook, but gain the lowest level of engagement. The highest level of engagement is given to the categories of celebrity and healthcare malfunction. Therefore, while there is user attention for the topics that recur regularly in the sources selected by Google News, which are of a “technical” nature (medical-scientific or organizational, concerning the activities of the health world), the greatest interest, expressed through shares or comments, goes toward topics which do not require a rational attitude nor the possession of technical-scientific knowledge, and which can arouse a greater emotional “journey”.

- It is more common for users to share health news, as a reaction, than to comment on it. Comments are more common for non-scientific topics (such as celebrities), but less frequent for those topics that require a rational attitude (as per medical science and medical practice). In reality, this tendency is masked by a propensity to comment that increases with the level of engagement across all categories, with the exception of the most strictly technical ones.

This would confirm the tendency whereby users express their points of view on the social network and therefore feed the public discourse on health, moving within in a more “popular” and emotionally charged field.

- Analysis of the sources reveals that the news items aggregated by Google News, which also gets attention from Facebook users, are the result of an intermediate gatekeeping effort. Indeed, the sources used are varied and range from news agencies and the mainstream media (national newspapers or periodicals) to specialist health and local news websites. In this context, however, findings indicate that the most recurrent news articles, focusing on scientific issues or on the activities of the health world, are mainly produced by agencies and mainstream sources.

- Facebook users pay attention to the health news produced by mainstream sources, but also to the items produced by local or specialized sources relating to specific issues. The engagement structure depends more on the topics than on the sources.

In conclusion, we can underline how, in a context where there is a growing tendency for citizens to search online for information on health issues, the role played by news aggregators such as Google News in the selection of the topics which characterize public discourse(s) on health/well-being (agenda setting) is no longer negligible.

Information professionals, health organizations and health research centers must increasingly consider the role played by online gatekeepers in their communication strategies. Facebook users’ interest in items of health news can help to increase health literacy, moreover creating the possibility to nurture an environment of scientific information online, therefore containing the phenomenon of disinformation/misinformation.

User engagement (via comments) is greater when the news topics are more “popular” and emotionally engaging. This poses an important question: is it possible to choose emotional-

ly-engaging topics even when dealing with scientific, medical and healthcare issues? This is doubtless a challenge which will be interesting to analyze in future studies.

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Declaration of Interest Statement

The authors declare that they have no conflict of interests.

Polarity of News Headlines in Social Media and Extent of Anti-Rohingya Rhetoric: Evidence from Online News Media in Bangladesh

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Abstract

Hostile portrayals, stereotyping, and violent narratives on Rohingya minorities in social media is a new phenomenon in Bangladesh. It is often argued that news headlines in online news media play critical role in attracting social media users to express hatred in the form of comment. Therefore, this study sought to analyse the polarity and subjectivity of news headlines and corresponding comments posted in two popular news agencies' Facebook pages followed by approximately 26 million users. It probed the relationship between the polarity of news headlines posted in Facebook and anti-Rohingya rhetoric. Moreover, the study also analysed the anti-Rohingya trend. To determine the polarity of the headlines, sentiment analysis using Python programming language was used. Sentiment analysis discovers the emotional tone behind words in order to understand the attitudes, opinions, and emotions expressed online. The anti-Rohingya rhetoric in comments was identified and measured manually by using group consensus judgment. Relationships between variables were tested by using regression analysis. The study further showed that majority of the news headlines were positive, followed by neutral ones, while negative headlines positioned the least. News headlines were more factual than opinion based. No significant relationship was found between polarity of news headlines and the extent of anti-Rohingya rhetoric. However, negative headlines showed a weak increasing of anti-Rohingya speech than positive headlines. In the span of time the Rohingya people stayed in Bangladesh, an increasing trend of anti-Rohingya speech was evident from the study.

Keywords: anti-rohingya rhetoric, news headline polarity, sentiment analysis, content analysis, rohingya crisis

Introduction

The Rohingya are stateless, mostly Muslim minorities who have traditionally lived in Myanmar. They are described as the most persecuted minorities (UNHCR) who have suffered decades of violence and discrimination in Myanmar. The series of violence since 1990s compel them to flee Bangladesh, ultimately, the exodus that started in the last week of August 2017, led million of them crossing the border of Bangladesh from the "ethnic cleansing" instigated by Myanmar army. It is argued that Anti-Rohingya rhetoric in social media especially in Facebook "fuelled" the genocide. Social media has played a critical role in the creation of anti-Rohingya public opinion in Myanmar (Lee, 2019) and human rights groups often blame the military for proliferation of anti-Rohingya propaganda in Facebook for inciting murders, rapes and the largest forced human migration in the recent history (Mozur, 2018).

The atrocity against Rohingya and the forced migration demonstrate how there can be devastating real-world consequence when extreme speech against groups like the Rohingya has been made acceptable and mainstreamed (Lee, 2019). Contrarily, Bangladesh opened its borders to the displaced Rohingya (Dhume, 2017) with compassion. However, as time goes by, this exemplary compassion turned into fury, occasionally expressed by the host community in the form of procession and human chain (Bhuiyan, 2019) which involved multiple factors. The fury is also expressed in social media in the form of hate comment and symbolic expression such as emoticons, memes and pictures. Several studies investigated the anti-Rohingya rhetoric in the context of social media and online media in Myanmar. However, a little atten-

tion is given to the recently trending anti-Rohingya speech in social media of Bangladesh. It is generally agreed that the social media revolution has rapidly changed the way journalism is perceived. Almost all the news agencies, now a day, have their social media pages through which the news is distributed. The purpose is to reach a larger number of audiences instantly and interactively. The readers can immediately publish their opinion below online texts (Erjavec, 2014) of the news content and the audience engagement is labelled as participation opportunity (Domingo et al., 2008). The concept of feedback binding with the concept freedom of expression, make the situation more complex. The possibilities of interactivity (Erjavec, 2014) and the freedom of participation have increased the likelihood of hate speech.

Headline often plays a critical role in social media news dissemination. The race of attracting more and more users drive the news agencies to create exaggerated, aggressive and sometime misleading headlines. It is evident that the extreme sentimental headlines are associated with the most popular news articles (Reis et al, 2015) and the first impression created by the headline can drive the way user perceive rest of the content (Ecker et al., 2014) and their reaction on it. The importance of headlines in media studies, news production and dissemination brought out research to study the concept in various context, such as sentiment analysis of headlines and the popularity of the news articles; discourse analysis of headlines in the hostage crisis; ideological aspects of translating news headlines; news headlines and representation of children at risk; sentiment analysis of news headlines for stock price prediction and stock trend prediction etc. ((Reis et al, 2015; Metila , 2013; Khanjan et al, 2013; Ramos et al, 2009; Kirange and Deshmukh, 2016; Gupta, 2020). Majority of the investigations is focused on the methodological approach of the headline analysis from the perspective of computer science studies. A very little is known about the headlines' polarisation and hate speech, especially, in the context of Rohingya crisis. A better understanding of the sentiments expressed in headlines and the extent of anti-Rohingya rhetoric may be the key to designing new knowledge of the Rohingya crisis from the perspective of media studies. Therefore, this study is sought to analyse the polarity and subjectivity of news headlines and corresponding comments posted in two popular news agencies' Facebook pages "BBC Bangla" and "Prothom Alo" collectively followed by more than 26 million users. It probes the relationship between the polarity scores of the headlines and extent of anti-Rohingya speech. Moreover, the trend of hate comment is analysed to understand the tendency of anti-Rohingya rhetoric.

1. Materials and Methods

To analyse the data, the study used content analysis which is a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use (Krippendorff, 2004). It is a method of analysing written, verbal or visual communication messages (Cole, 1988). Sample data were drawn from the two Facebook pages of the two popular news outlets. The pages were searched with the words "Rohingya" and "Rohingya Crisis". A list of news posts was prepared from the search result dated from August 27, 2017 to October 20, 2019. A total of 158 randomly selected headlines posted in the Facebook pages was gathered for analysis. Headline in this study refers to the 'Facebook post' that is updated by the news agencies in their Facebook pages with the news content link that is originally posted in their respective websites (sometimes, they post text, video or photograph directly in the Facebook pages without any link).

The polarity score and subjectivity score of the headlines posted in facebook were calculated by using Natural Language Toolkit (NLTK) in Python. Specifically, TextBlob, an open-source python library for textual data processing, was used for textual analysis. The headlines were categorised under Positive, Neutral and Negative sentiment. These categories were determined based on the polarity score of the headlines. The polarity score is a float within the range [-1.0, 1.0]. In this study, score more than 0 was considered as positive, absolute 0 was considered as neutral and less than 0 was considered as negative. On the other hand, the subjectivity is a float within the range [0.0, 1.0] where 0.0 is absolute objective and 1.0 is absolute

subjective. Several phases of data cleaning process, such as tokenisation, stop word removal, punctuation removal and stemming were conducted using machine learning algorithm.

Table 1: Example of Data Cleaning Process

Headline	Punctuation Removal	Tokenisation	Stop Word Removal	Stemming
17 Rohingya Women and Children died when a boat capsized near the island of Shahpori, Teknaf	Rohingya Women and Children died when a boat capsized near the island of Shahpori, Teknaf	['', 'rohingya', 'women', 'and', 'children', 'died', 'when', 'a', 'boat', 'capsized', 'near', 'the', 'island', 'of', 'shahpori', 'teknaf']	['', 'rohingya', 'women', 'children', 'died', 'boat', 'capsized', 'near', 'island', 'shahpori', 'teknaf']	['', 'rohingya', 'women', 'children', 'die', 'boat', 'capsiz', 'near', 'island', 'shahpori', 'teknaf']

The headlines were in Bangla language, for that, they were translated in English by human translators before analysis. It is argued that translated content is not compatible for analysis in NLTK as cultural factors are involved in the process. However, this study argued that translation involved an interpretive component, consequently, it required a person (to translate) who knows both languages to systematically substitute words or strings of words in the other language for words or strings of words in the text (Kuhn, 2000). A human translator who knows to produce equivalent text in English can translate the headlines from Bangla. The translation needs to be done in such a way as to produce an equivalent text in other language (Kuhn, 2000). Even machine translation was showed compatible for sentiment analysis, Balahur and Turchi (2012) in their study found that machine translation systems are approaching a good level of maturity and that they can, in combination to appropriate machine learning algorithms and carefully chosen features, be used to build sentiment analysis systems that can obtain comparable performances to the one obtained for English.

Table 2: Example of Headline, Polarity Score and Subjectivity Score

Headline	Polarity	Subjectivity
Forced them to flee their homeland. The genocide of that nation is the most barbaric in the history of the world	-0.30	0.20
Military burning Rohingya Villages in Rakine State: Analyzing many satellite images of the Rakhine state, Amnesty says more than 80 large areas have been burned in the past three weeks. Amnesty International reports that Myanmar's military and its allied local groups are doing that	0.38	0.20
A large number of Rohingya women fleeing Myanmar have been sexually harassed by the Burmese military. Farhana Parveen's report has come up with a shocking incident.	-0.10	0.59
Malaysia protested in ASEAN alliances on Rohingya crisis: The ASEAN statement condemned the attack on security forces in Myanmar. Violence has been condemned. But the term Rohingya Muslim was not used or the tortured on Rohingya has not been mentioned. And that has made Malaysia very angry.	-0.5	1.0
Rohinga crisis: How are the other muslims in Myanmar ? In Myanmar, you won't find a single junior Muslim officer in the police force now - the army is a long way off	-0.61	0.31

The study also argued that a headline is more objective than subjective. An objective content is usually less cultural-specific therefore, it is viable to translate for analysis using NLTK. To support the arguments, the study conducted Independent T test to probe the assumption that headlines are more factual (objective) than opinion based (subjective) and there is no difference between the translated headlines and original headlines in terms of calculating sentiment score. A test data set comprised of 100 headlines in English was gathered from the English version Facebook page of BBC News and English version website of Prothom Alo (English version Facebook page is not available), then compared with the equal number of English translated Bangla headlines collected from the Bangla Facebook pages of “BBC Bangla” & “Prothom Alo”. Polarity and subjectivity scores were calculated for both sets of data by using NLTK, TextBlob. Independent T Test was done for polarity and subjectivity scores separately for both sets of data i.e., t test of polarity between English data set and translated English data set; t test of subjectivity between English data set and translated English data set. The test results showed a higher p value for the subjectivity ($p = 0.05 > 0.71$) and polarity ($p = 0.05 > 0.37$) of the headlines. The higher p value of the T test suggested that there was no significant difference between the English headlines and the translated English headlines. Moreover, the mean score of subjectivity (English headlines, mean (μ) = 0.20; Translated English headlines, mean (μ) = 0.24) suggested that the average headlines were factual (objective) than opinion based (subjective).

The comments under each post were analysed based on the objective of the study. A total of 17694 most relevant comments were selected for analysis. The most relevant comments (a Facebook default option) refer to the comments or reactions from a particular user’s connections, comments from verified profiles & pages and comments with most likes and replies.

The anti-Rohingya rhetoric was identified and measured manually by using group consensus judgment. Anti-Rohingya rhetoric refers to hostile, prejudiced or discriminative expression against Rohingya. Anti-Rohingya speech is expressed online through comments, emoticons, posting of derogatory images and sometimes by mocking the plight of Rohingya living in the camps of southern Bangladesh. Three volunteers from the research lab were engaged to manually label the comments under each headline as Anti-Rohingya or Pro-Rohingya. Each volunteer labelled the data independently, without the influence of the others. The percentage of agreement between the volunteers was 98% for comments. The relationship between headlines’ sentiment score and the extent of Anti-Rohingya speech was tested by using linear regression analysis. Simple percentage calculation method was used to determine the categories of headline and trend of the Anti-Rohingya speech by months and by year.

Data was visualised by using Table, Bar Graph, Scatter Plot and Line Graph.

2. Results and Discussion

2.1 Sentiment category of the headlines

A total of 158 headlines were analysed to categorise the headline based on the sentiment expressed. Table 3 shows that majority of the headlines are positive (48.7%) followed by the neutral headlines (32.28%). The negative headlines came out least (18.99%).

Table 3: Sentiment Category of Headlines

Category of Headline	Number of Headline	Percentage of Headlines (%)
Positive	77	48.73
Neutral	51	32.28
Negative	30	18.99
Total	158	100

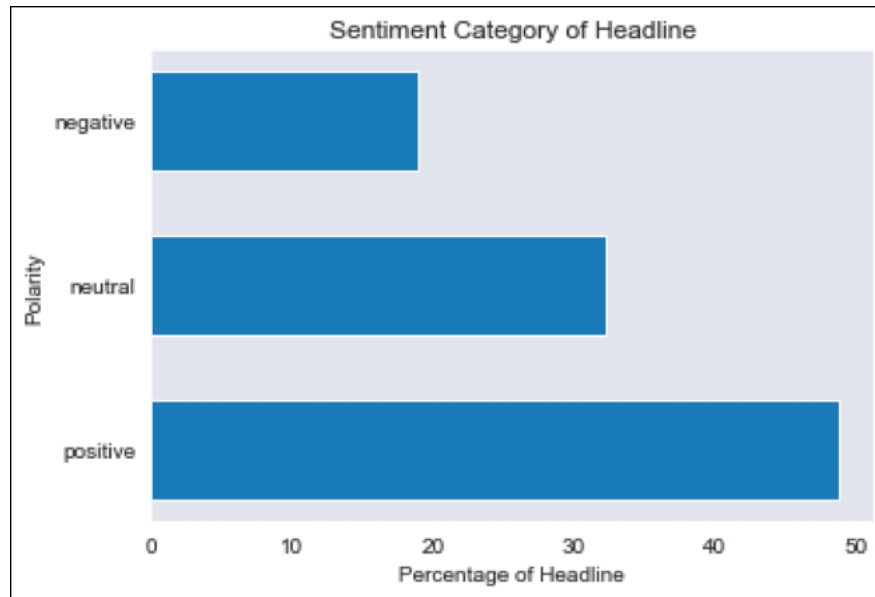


Figure 1: Sentiment Category of Headlines

The study revealed the prevalence of positive headlines while the other studies (such as Reis, 2015; Kirange and Deshmukh, 2016) showed the dominance of negative news headlines. However, those studies did not focus on the headlines related to migration crisis, especially the Rohingya crisis.

In general, the portrayal of 'refugee' in media studies is largely categorised either as 'villain' who possess threat or as 'victim' without agency (Heinkelmann-Wild, et al, 2019). Especially, the media studies in European context revealed the dominance of negative portrayal of refugee, the positive representations of refugees were limited to the narrative of a passive victim (Lama, 2017). The abundance of positive headlines in this study could be interpreted as positive representation of Rohingya in the mainstream online media discourse. A large portion of the analysed headlines (64 out of 158) were from the last four months of 2017, i.e., the beginning of the crisis when the media was flooded with news on the crisis that included Rohingya's exodus, and the atrocities committed by the Myanmar army. The sufferings of Rohingya, especially their difficult journey of fleeing from the persecution, their initial miserable plight in the host country and the humanitarian efforts dominated the news stories which represented their image as 'victim', might contribute to the prevalence of positive headlines.

2.2 Subjectivity category of the headlines

Table 4: Subjectivity Category of the Headlines

Category of Headline	Number of Headlines (n = 158)	Percentage of Headline (%)
Objective	124	78.48
Subjective	34	21.52

* Calculated μ (mean) = 0.27

Subjectivity score of the headlines was calculated and analysed to understand if the headlines were subjective or objective i.e., opinion based or factual. Table 4 reveals that majority (78.48%) of the headlines are based on fact and only 21.52% are subjective. The mean score (μ)

= 0.27) of the subjectivity also suggested that the average headlines were unbiased, free from the coloured viewpoint of the news outlets. The general trend of subjectivity observed by previous research (Kavanagh, *et al*, 2019) provided initial evidence of a gradual and subtle shift over time and between old and new media toward a more subjective form of journalism that is grounded in personal perspective, however, the evidence had been subtle, not wholesale, especially, in the case of mainstream media outlets.

2.3 Analysis of comments under headlines' sentiment category

Most relevant comment (n = 17694) were analysed to understand the extent of responses under each category of the headlines. Table 5 shows that 47.33% user comments are under positive headlines, 31.63% comments are under neutral, and 21.04% comments are under negative headlines.

Table 5: Category of analysed comment under Headlines

Sentiment Category of Headline	Number of Analysed User Comment	Percentage of Analysed Comment (%)
Postive	8376	47.33
Neutral	5596	31.63
Negative	3722	21.04
Total	17694	100

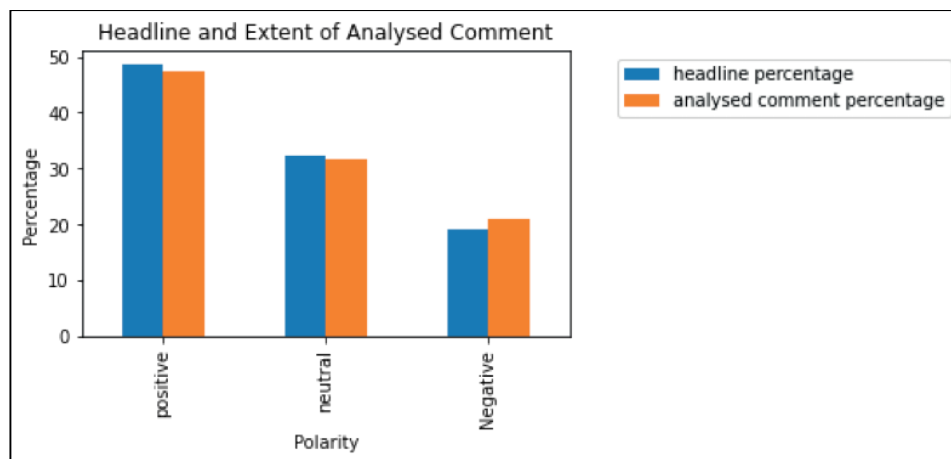


Figure 2: Headline and Extent of Analysed Comment

2.4 Analysis of anti-Rohingya rhetoric

The study identified 3221 comments as Anti-Rohingya from the 17692 most relevant comments which was the 18.20% of the total analysed comments. As seen in Table 6, among the anti-Rohingya comment 44.68% are under positive headlines, 36.10% are under negative headlines and rest of the 19.22% are under neutral headlines.

Table 6: Analysis of Anti-Rohingya comment

Category of Headline	Number of anti-Rohingya comment identified	Percentage of Anti-Rohingya comment under Headline (%)
Positive	1439	44.68
Neutral	619	19.22
Negative	1163	36.10
Total	3221	100

For better understanding of the anti-Rohingya tendency, the study compared the headline category percentage with the percentage of Anti-Rohingya comment. Table 7 shows that only 19% negative headlines draw 39% anti-Rohingya comments while almost 49% positive headlines draw 45% anti-Rohingya comments from the users. The data indicated that negative headlines were more prone to anti-Rohingya rhetoric from the users as the gap between the negative headlines and the anti-Rohingya comments were higher i.e., a smaller number of negative headlines draw a higher number of anti-Rohingya comments.

Table 7: Headline vs Anti-Rohingya Rhetoric

Category	Percentage of Headlines (%)	Percentage of Anti-Rohingya comment (%)	Difference
Positive	48.73	44.68	4.05
Neutral	32.28	19.22	13.06
Negative	18.99	39.10	20.11

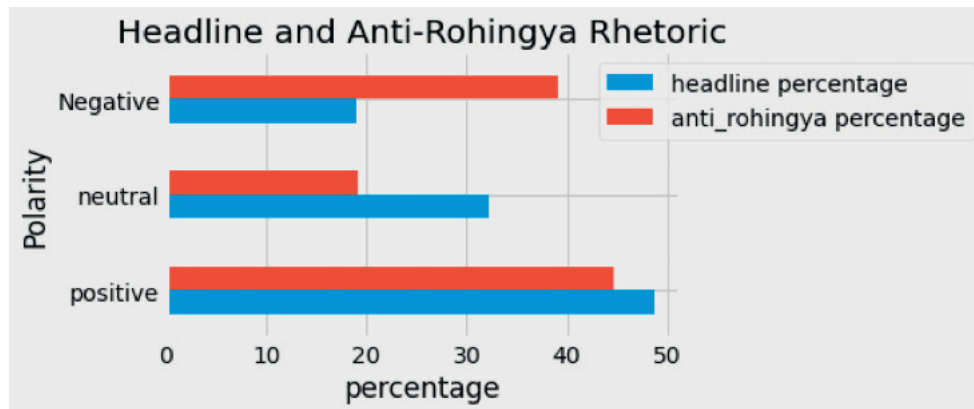


Figure 3: Headline vs Anti-Rohingya Rhetoric

The overall data analysis of comments under headlines sentiment indicated that the positive headlines drew more responses from the users, it could be for the prevalence of positive headlines. The number of anti-Rohingya comment identified in the study placed the least. However, the underlying tendency of smaller number negative headlines drawing higher anti-Rohingya comments possessed the potency of increasing anti-Rohingya reaction in future. This could also be supported by the outcome of the previous study where it was suggested that strongly negative or strongly positive news headlines tend to be more attractive to internet users (Reis *et al*, 2015).

2.5 Relationship between polarity score and anti-Rohingya rhetoric

Simple linear regression analysis was conducted to determine the relationship between the headlines' polarity score and the extent of hate comment. The result (as seen in Table 8) confirmed a very weak decline ($r = -0.11$) in the relationship. The r-squared value 0.003 suggested that 0.00 percent of the data fits into the regression model.

The study also conducted regression analysis independently between positive sentiment score and the extent of anti-Rohingya rhetoric, negative sentiment score and the extent of Anti-Rohingya rhetoric in order to verify and to get a clearer outcome.

Table 8: Relationship between polarity score and anti-Rohingya Rhetoric

Head	r ² Value (Coefficient of Determination)	r Value (Correlation Coefficient)
Relationship between headline polarity score and anti-Rohingya Rhetoric	0.003	- 0.115
Relationship between headline’s positive sentiment score and anti-Rohingya Rhetoric	0.00	-0.01
Relationship between headline’s negative sentiment score and anti-Rohingya Rhetoric	0.018	0.13

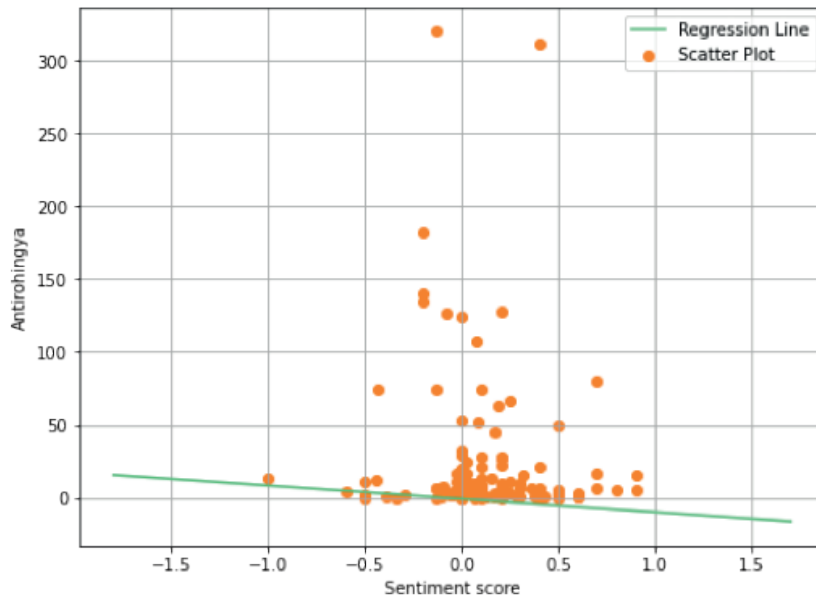


Figure 4: Relationship between headlines’ polarity score and extent of anti-Rohingya rhetoric

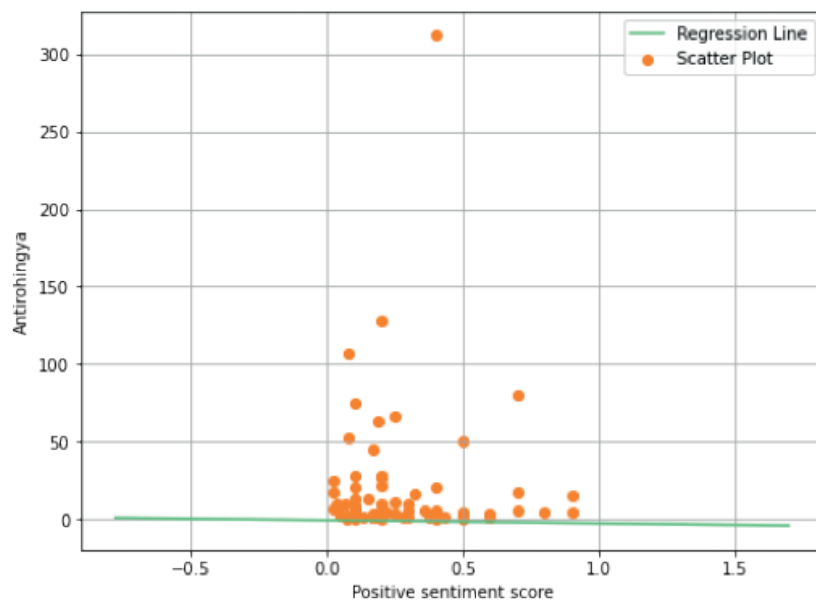


Figure 5: Relationship between headlines’ positive sentiment score and anti-Rohingya rhetoric

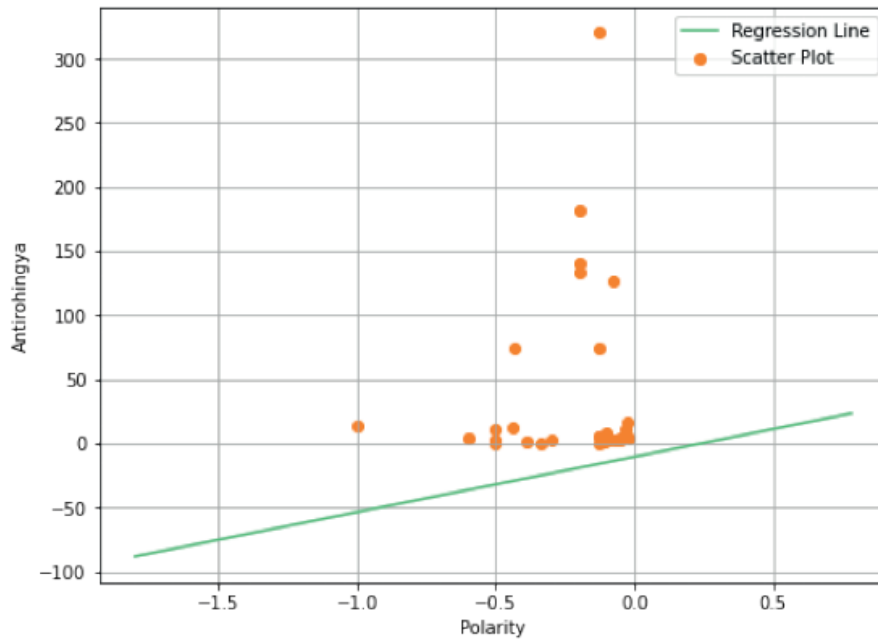


Figure 6: Relationship between headlines' negative sentiment score and anti-Rohingya rhetoric

The result (Table 8) also, showed no relationship ($r = -0.01$) between the positive sentiment score and the extent of anti-Rohingya Rhetoric (r square = 0.00). On the other hand, the result indicated a weak increasing ($r = 0.13$) in the relationship when conducted regression analysis between negative sentiment score and anti-Rohingya rhetoric. The r -squared value 0.018 confirmed that nearly 02% percent data fits into the regression model.

The overall regression analysis showed no significant relationship between the polarity score of the headline and the extent of anti-Rohingya rhetoric. The negative sentiment score of headlines showed a slight inclination than the positive sentiment score. However, there was no concrete evidence found that negative or positive headlines contributed to intensify the hate comment. The study suggested that there could be other factors contributed to the anti-Rohingya rhetoric. Previous study conducted by Reis *et al*, (2015), found that hate comments were pervasive and online news headline intended to draw negative comment independently of the sentiment of headline. Wohn and Bowe (2014) explained that attitude towards the content of the information would be affected by other's attitude i.e., a hateful user's comments might influence the others to come up with more hatred which was described by Cheng *et al* (2014) as snowball effect. Mathew *et al*, (2018), in their study on social network observed that the hateful users demonstrated higher reciprocity values than the non-hateful users and the hateful users showed more popularity than the non-hateful users. Moreover, their study showed that the likeliness of following another hateful user was much higher than a non-hateful one, that indicated strong cohesiveness between the hateful users. These might be linked with the anti-Rohingya rhetoric i.e, a hateful user could be more influenced by another hateful users than a positive or a negative headline. However, future study could be conducted to prove the above assumption.

2.6 Trend of Anti-Rohingya Rhetoric

The analysis revealed that there was unsteady yet increasing trend of Anti-Rohingya comment by months. The first four months i.e., from August 28, 2017 to December 2017, there was not much anti-Rohingya rhetoric visible in the comments. It's gradually increasing in the course of time. There were ups and downs in the line, however, the trend line was more down in the first several months of the crisis.

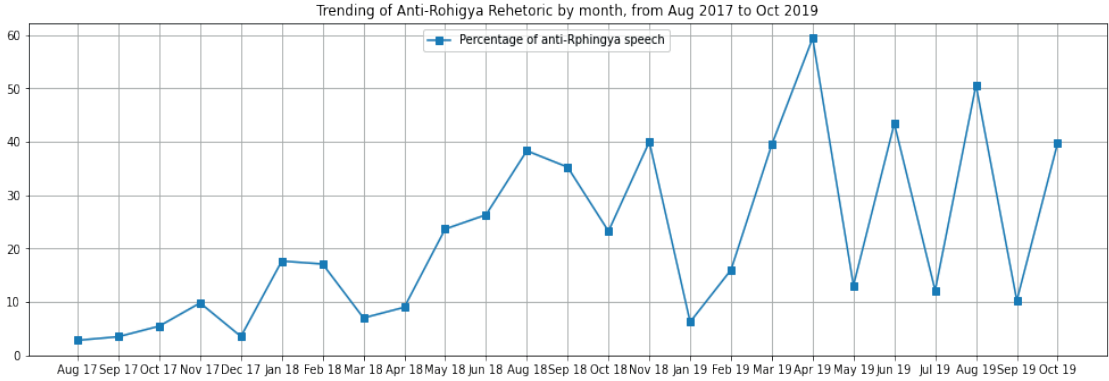


Figure 7: Trend of anti-Rohingya rhetoric by month, from Aug 2017 to Oct 2019

The data in Table 9 reveals that the Anti-Rohingya rhetoric is increased by year. Majority of the sample headlines and analysed comments were in 2017 (August -December) i.e., 40.51% headlines and 48% of total analysed comments, However, the extent of anti-Rohingya rhetoric was only 4.4%.

Table 9: Anti-Rohingya trend data by year

Year	Headline (%)	Analysed comment (%)	Anti-Rohingya (%)
2017 (Aug 28 to Dec)	40.51	48.03	4.4
2018 (Jan - Dec)	34.81	19.28	20.04
2019 (Jan-Oct 20)	24.68	30.69	38.73

In 2018, the analysed headlines were 34.81%, total analysed comments were 19.28% and the Anti-Rohingya rhetoric was increased by 20.04%.

Moreover, in the first 10 months of 2019, (24.68%) headlines were analysed. The anti-Rohingya rhetoric is increased by 38.73% and the extent of analysed comment was 30.69%.

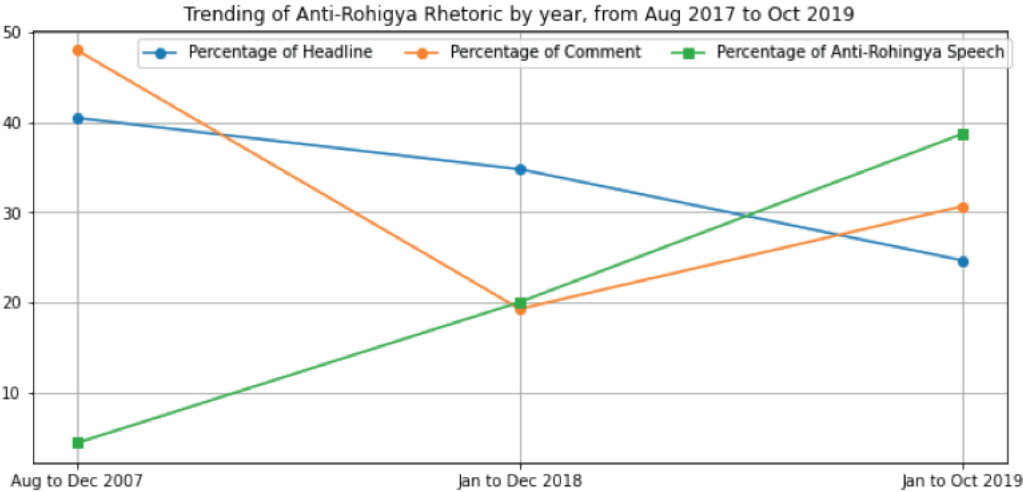


Figure 8: Trend of Anti-Rohingya Rhetoric by year, from Aug 2017 to Oct 2019

More anti-Rohingya rhetoric is visible in the trend line (Figure 8, from January 2018 to October 2019) than overall response from the users. It could be stated, based on data, that there was varying yet clear increase of Anti-Rohingya rhetoric, and it was increasing in a leaping manner by year and the media attention towards the Rohingya crisis was decreasing at the same time.

The data could be explained by categorising the crisis into periods such as period of influx and acceptance; period of humanitarian effort; and period of uncertainty and fear. Gerogiou and Zaborowski (2017), observed the European refugee crisis in similar manner. The first few months (four / five months) could be described as the period when the influx began, thousands of Rohingya was crossing the border every day. The focus of the media was on the crisis reporting on the atrocity, difficult journey and sufferings of the Rohingya. While analysing the data, the study observed that public opinion on social media was dominated by compassion on that period. The humanitarian efforts were strengthened to provide the Rohingya shelter, food, medical and other assistance in the next period that was extended until the next several months (four months) from the first period. The news coverage was full of stories on humanitarian efforts from International and local communities and agencies. The public opinion seemed to observe the crisis with acceptance, but with some agreement and disagreement. The period of uncertainty and fear began after nearly one year since the crisis started. The news coverage predominately focused on the international political discourse on repatriation and various issues on displaced Rohingya camps. Issues such as competition for resources between the host community and Rohingya, increase of crime especially emergence of new crime, environmental destruction, uncertainty of repatriation, reluctance of Rohingya to move permanent shelter and high birth rate of Rohingya population (Xchange, 2018; Reliefweb, 2019; Save the Children, 2018), were on the media and social media. Fear and uncertainty were grown among the public and their opinion was reflected through comments in the social media. Miller (2018) also indicated in her study that xenophobia is rooted in competition for access to limited resources, limited spaces and services. Sometimes, a consequence of the actions or xenophobic pronouncement made by a political leader may also shape and reinforce public opinion and behaviour (Miller, 2018) in social media which is evident in the host country, Bangladesh media (bdnews24.com, 2019). The increased gravity of hate speech could also be described in five stages (i) discriminatory speech, (ii) hate speech, (iii) incitement to hatred, (iv) incitement to terrorism and (v) incitement to genocide (Ghanea, 2012). In line with that, hate speech was clearly visible against Rohingya from the study. It was intensifying with the span of time and turned to incitement of hatred. As time goes by, the anti-Rohingya rhetoric in social media might spur more hatred which could later turn into severe consequence in real life.

3. Conclusion

There is a general agreement based on the evidence that anti-Rohingya rhetoric in social media of Myanmar fuelled the persecution against the Rohingya Muslim ethnic minority in Rakhine State. However, hate speech on Rohingya is a new phenomenon in Bangladesh. Headlines play a critical role in social media news dissemination and spreading of hatred. The race of attracting more and more users drive the news agencies to create exaggerated, aggressive and sometime misleading headlines. More sentimental headlines often draw more responses from the users to express their opinion. Their extensive freedom of expression and instant interactivity increase the likelihood of hate speech in social media. This study, unlike others, reveals the prevalence of positive headlines and positive representation of Rohingya in online media discourse. The headlines are mostly factual and free from fabricated perspective. The positive headlines draw more responses from the users than negative and neutral headlines, and the anti-Rohingya comments are less than pro-Rohingya comments. There is an underlying tendency of smaller number of negative headlines drawing higher number of anti-Rohingya comment in the study. No concrete evidence is found that negative or positive headlines contribute to intensify the anti-Rohingya rhetoric. There is varying yet clear evidence of increasing Anti-Rohingya rhetoric and decreasing media attention toward Rohingya crisis, as time goes by. This study is limited to analyse the data from two major (mainstream media) news agencies' Facebook Headlines. Therefore, the study suggests conducting future research with 'big data' that include all the major media outlets from the host country or could expand further to international media with more diverse audience.

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Kusvereredza in Zimbabwe's Social Media Sphere

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Abstract

Social media is used to speak back to power in ways unimaginable over two decades ago (Mpofu, 2015; Matsilele, 2019; Chitanana and Mutsivairo, 2019). The entry of social media in public life has reconfigured power relations, altering what citizens can say and in return the consequent ramifications especially in instances where they can wear untraceable identities (Shirky, 2011, Hanna et al., 2011; Gainous and Wagner, 2013). This reality has seen dictatorships, and to an extent some democracies, looking for ways to tame this wide use as increasingly these applications are diluting political elites' power and in certain cases ending political careers built over decades. This explains why countries in the global south like Nigeria, eSwatini (formerly Swaziland), Zimbabwe, the Democratic Republic of Congo among others have had to switch off internet to contain what citizens can circulate (Mare, 2020; Marchant and Stremlau, 2020; Freyburg and Garbe, 2018). While one cannot doubt that social media has become the epicenter for production and dissemination of fake news (Allcott and Gentzkow, 2017; Shu et al., 2017), it is also becoming apparent that the same platforms are now also exposing the excess of power, corruption and other abuses which in the past were easily swept under the carpet (Zulli, 2020; Lorenzana, 2020). In this study, with interest on Zimbabwe, a country that has faced incessant dictatorship over the past decades, we explore how citizens troll power and in turn how the power elites respond. We argue that the age-old *kusvereredza* has morphed, metamorphosed and been repurposed into a potent weapon not only of showing popular disapproval against the excesses of the ruling ZANU-PF government but also of frequently publicly undressing power and catching it with pants down. We propose that the lens of *kusvereredza* is a more organic, productive and contextually aware strategy of social media analysis compared to imported frameworks. We conclude by showing some of the limits and possibilities of political *kusvereredza* on social media.

Keywords: kusvereredza, social media, Zimbabwe, trolling, Mnangagwa, folklore

Introduction and Background

In Africa generally, and Zimbabwe in particular, trolling (*kusvereredza*) power was inbuilt in the fabric of the society. Africans were encouraged to troll power and this exercise could only fester in certain spaces. This was, as we argue in this paper, a unique form of democracy that Africans practiced since time immemorial. The notion of *kusvereredza* was experienced through proverbs, sayings, idioms, traditional games, festivals, *zvituko* (insults) and folktales. Folktales that were passed from generation to generation had trolls who always won thereby acting to cement their behaviors as acceptable forms of dissent. In folklore stories, *Tsuro* (the hare) and *Kamba* (the tortoise) are two of the seemingly physically impaired characters and often pitted against powerful figures such as *Gudo* (the baboon), *Nzou* (the elephant) and *Ngwena* (the crocodile). Interestingly and unsurprisingly, the physically challenged always win against the powerful demonstrating how Africans always imagined the role of the weak when pitted against the powerful.

Tsuro, who delighted in literally driving others crazy, did so partly because he was a born trickster and a troll, but also because he was a subaltern: he always responded to the challenge of the powerful. That is, *Tsuro* and *Kamba* specialised in trolling power. That was their own way of throwing power into disarray. One supposes, therefore, that had *Tsuro* and *Kamba* had smartphones, Facebook, and a Wi-Fi connection, they perhaps would have been social media trolls playing the *vasvereredzi* (trolls) role. Today's trolls, who in the past could have been characterised as tricksters, or those imbued with the capacity of *kusvereredza* power, share a few characteristics, such as a preoccupation with messing with power, defying norms and bending

rules. Set against the concepts of dissidence and social media trolling seems to be a key aspect of social media dissidence. The notion of *kusvereredza*, which follows the puzzle-game of *zviraabwe* (riddles), is a distinct form of trolling those in power.

1. The Past in the Present: Reading African Culture into Today Cyber Trolls

Dissent and dissidence are replete in Zimbabwean classical culture. In other words, dissidence and trolling (*kusvereredza*) has a place outside the narrow political discourse. It is, rather, an everyday sociocultural phenomenon. Dissidence and trolling in the classical sense is embedded in everyday culture as a way of checking and balancing of power and restoring respect for each other. Essentially, checking and balancing of power is not done for its own sake. Rather, it is done for the purposes of *hunhu* (Ubuntu/humanness). What *hunhu* really is *hunhu*, however, is everybody's guess. The quest to identify the real *hunhu* is hotly contested (cf. Mboti 2015). As Mboti (2015), argues, however, that *hunhu* is merely another word for "social contract", although we will add that *hunhu* itself is merely about being human. Indeed, *hunhu* comes from *munhu* (human being). This would suggest that *hunhu* is the opposite of dehumanization. If a dissident or a troll helps to restore *hunhu*, this might suggest that the objective of dissidence is re-humanization – restoring the humanity of Zimbabwe.

These propositions, of course, guide us towards a reading of Freirean pedagogy. Perhaps, whoever challenges power is seeking to restore *hunhu*. It does not matter who is being challenged – if they happen to have the capacity to dehumanize other Zimbabweans. Indeed, dissidents and trolls can turn around and themselves abuse and dehumanize others as we saw with Mugabe and Mnangagwa, dissidents of the 1960s and 1970s who in post colony Zimbabwe committed atrocities as they attempted to exterminate 'dissidents' from the face of the earth. As such, all those who lack fellow feeling and are insensitive to others deserve to be disrespected whoever they are, without fear or favour, but only to making them see *kurwadza kwazvo* (how hurtful their actions are to others). The elements of "restoring balance" and "having no fear or favour", as we will see, are central to the taxonomy of trolling dissidents. *Hunhu*, as such, seems to be the critical pillar of Zimbabwe moral society (Samkange and Samkange 1980; Mangena 2012; 2016), its unspoken moral code, whether one is Ndebele, Shona, Shangaan (Tsonga), Tonga, and so on. If unrestrained power disorders *hunhu* (Ubuntu) of a nation, throwing it out of joint, then trolling dissidence may essentially be a restoration of *hunhu*/order by disordering the order of the *hunhu*-disordering elites. That is, trolling dissidence disrupts only to restore *hunhu*.

2. Tracing Trolling back to African Classical Tradition

The classical game of *kusika nyimo* (spinning round nuts), or the proverb *ushe madzoro* (power is an exchange), for instance, will clearly show that those in power must be challenged, time and again, particularly if they do not respect *hunhu hwevamwe* (the humanity of others). In *kusika nyimo* participants freely compete for dominance by spinning the round nut on a flat surface. The reigning champion is not only the one who spins their seed the longest on the 'board' but manages to elbow out others. The game allows other participants to throw in the trolling 'dissident' *nyimo* time and again to challenge and disorientate the reigning champion (Hodza, 1984, p. 34). If the dissident *nyimo* is more skilful and able to successfully disorientate the reigning *nyimo*, it sets the stage for equalising the balance of power or even elbowing out the champion, who is replaced by another dominant *nyimo*. Noticeably, the trolling dissident *nyimo* do not become dominant, but, rather, work to weaken and buffet the champion *nyimo*. They themselves also fall by the wayside. That is, trolling dissidence involves sacrifice. The dance of the *nyimo* is going to be integral in how we understand the "battles" pitting Zimbabweans against the government of Zimbabwe.

A second example from classical tradition would be the tradition of *zviraabwe* (riddles), which had the norm that the side that got beat in a game of wits got ridiculed at the end of the game, through a process called *kusvereredza* (trolling, laughing at). Dissidence is built around

this element of *kusvereredza* (to troll) power. In *zvirahwe*, a pastime done in the evening after dinner, the participants mostly being children, two groups of participants are thrown into a battle of participants (Hodza 1984, p. 37). Each group takes turns to pose a riddle, which the other group tries to unravel, in a back and forth battle of wits. During the game the group that fails to unravel a riddle is not killed like the Sphinx of Thebes did, but is asked, first, to pose another riddle and, second, to give the answer to an earlier riddle that would have gone unanswered. The game goes on, as noted, in a back and forth until one side that poses difficult puzzles earns the right of *kusvereredza*.

The third example is found in Zimbabwean proverbs. In Shona language, proverbs are called *tsumo* while in Ndebele they are called *izaga lamazwi ahlakaniphileyo*. One example would be *Ubukhosi ngamazolo* which means that being in power is a temporary thing like dew which is there in the morning only. Proverbs are a verbal art (Gwaravanda and Masaka 2008) that is meant to educate the young about the nature of the universe, the nature of knowledge and the appropriate standards of human conduct (Masaka and Makahamadze 2013, p.136). Today, proverbs continue to carry classical wisdom for both young people and adults. Indeed, some of Zimbabwe's profoundest philosophical concerns are enshrined in their proverbial lore (Kahari 1990, p.1; Hamutyinei and Plangger 1987, p. xiii). Masaka and Makahamadze (2013, p.132) postulate that Shona proverbs serve a few functions such as the preservation, transmission and authentication of their religious beliefs and their moral code. In the words of Gelfand (1981, p.38) "man needs the ethical teaching of a religion and (we add) proverbs as a constant reminder to him to control his passions and desires to live a virtuous life" that promotes tolerance of others in society".

Because African culture normatively emphasises respect for *vakuru* (literally those who are "bigger" or "older" than oneself), we see that traditional African proverbs permitted direct and indirect trolling dissidence to check the unrestrained phenomenon of "bigness". That is, the emphasis on respect of *vakuru* has been routinely abused, since the dawn of time, by those in power through the "big man" syndrome. In modern times *vakuru* has come to mean that the powerful are "bigger" merely by having a monopoly on capital or on political power. This *hukuru* (bigness) is satirised in Musengezi's the Honourable MP and in African literary classics such as Ayi Kwei Armah's *The Beautiful Ones are Not Yet Born*, Achebe's *A Man of the People* and *The Trouble with Nigeria*, Okot p'Bitek's *Song of Lawino*, and Ngugi WaThiong'o's *Devil on the Cross*. Indeed, the ubiquity of criticism of *vakuru* in the generality of the African continent suggests that the abuse of *hukuru* is indeed a chronic, international epidemic of power. *Hukuru* is thus no longer drawn from the social contract of *hunhu* but from flouting it. One of Marshall Munhumumwe's songs, for instance, opines "mazuva ano anemari ndiye mukuru" (In modern time the one with more money is the "big" one or is automatically the elder). It is in this context of the wilful flouting of "bigness" by the privileged and powerful that I would like to argue that the unrestrained phenomenon of *hukuru* presents one of the greatest dangers to African societies in modern times. The irony is that this phenomenon is tacitly encouraged in classical and everyday culture. There is thus a thin line between use and abuse of one's status as "big". This thin line makes it difficult to tell when one is abusing power or merely being powerful.

There is a collection of proverbs amongst the Shona and the Ndebele people that not only seek to reflect the presence and permanence of spiritual forces in the everyday world, but to restore the balance of *hunhu* in that world. The Shona, for instance, achieve this using proverb that insist on the supremacy of the spiritual world over the mortal human being. In other words, human beings can never be so big as to be superhuman. The only superhumans are *Vadzimu* (spirit guardians), and to become superhuman one must die first anyway. As such, there are no superhumans in the classical Zimbabwean worldview. Nietzsche's idea of the *übermensch* will be completely out of place in such a worldview. That is, traditionally Zimbabweans are not permitted to do anything that is not human, including being superhuman. Humans cannot be other than what they are, which is to be human. This is an important

check on unrestrained power. An example would be the maxims that centre the role of Vadzimu. The Vadzimu do not allow human beings to mess with absolute power. They function to put absolute power out of reach of human beings. This they do by unleashing dissidents, for instance. An example is Mudzimu wakupa chironda wati nhunzi dzikudye (when the spirit guardians give you a wound, they are inviting flies to bother you). At any rate, Vadzimu are always seeking to restore the balance of hunhu by cutting down the powerful to size or sending nhunzi (flies) (that is, dissidents) to throw a spanner in the works. Again, the restorative function is preponderant.

Because the abuse of power is always likely, proverbs such as Mukuru mukuru hanga haigari pfunde ("Being big is being big, a guinea fowl cannot sit on top of a stalk of sweet cane"), Gombarume kudze soro, kukudza dumbu wonge wave chana (The big man needs a big head/brain, instead of a big tummy that should be reserved for children), Mwana washe muranda kumwe (A Prince who ventures outside the kingdom degrades into a servant), Ushe usiyiranwa (Power is like a turnstile), Ushe makota (A king depends on his councillors), Ishe idurunhuru (A leader is a rubbish pit), Ushe hahuzvitongi (A ruler does not rule himself/herself), Ushe idova, hunoparara (Rulership is like dew, it is shortlived) and Gudo guru peta muswe kuti vadiki vakutye ("Big baboon fold your big tail so that the little baboons will fear you") necessarily seek to constrain power as much as possible. The focus on checking "bigness" (Ushe/hukuru) is paramount. Respect must always be earned, and failure by the powerful to acknowledge that power comes with responsibility is an open invitation for misfortune. Those who are "big" are constrained to reflect on their behaviour and, where they are found wanting, change their conduct. We note that failure to change by those who are "big" is said to invite the dissidence of the young. That is, dissidence is classically associated with the younger generations who rebel against the waywardness of "big men". This is a reverse of the logic that sees the young as being the wayward ones. Rather, it is the young who seek to correct the "big". This is made clear in the dissident proverb Mwana muduku in'anga (The small child is the diviner).

Several proverbs even grew contemporaneously out of resistance against the hukuru of the Rhodesian colonial regime. Here, the proverbs emerge out of a concern to restore the balance disrupted by colonial (dis)order. Frederiske (1983, 23), citing Hodza, says that "our traditional tsumo (proverbs) have changed with time. Many have been adapted to deal with new circumstances, to fit new situations", such that "there are certain proverbs which have been coined by the Africans because we have studied the behaviour of the white man". That is, these are examples of dissident proverbs. For instance, Chemurungu idya wakatenama (When you are eating something given by a white man, you must sit on your haunches). This proverb did not only protest social relations between Africans and whites but implied that whites were devious beings who could not be trusted. The classical principle of distrusting power is retained. The proverb Murungu, murungu, haafugurire hapwa mumwe wake (A white man does not show his armpits). This proverb expresses the belief that colonial white society sustained itself by dividing and ruling Africans. That is, the unity of whites was preserved at the cost of African division. This is how the discourse of vatengesesi (sell-outs) arose in the liberation struggle. Vatengesesi were those who lifted their armpits to the white man. This is also the same discourse we see Mugabe using to label the opposition as a way of turning Zimbabweans against each other, again the idea of divide and rule (Ranger 2005). Outside of proverbs, Shona cosmology teems with examples of dissidence. The stability of Shona society is assured by a kind of division of labour within this cosmology. Chimuka (2001) states that:

The Shona have clear concepts of the virtues and vices and they have much to say about the aberrations of personality. So, they have a definite idea of what constitutes behaviour in their society and its importance. Good relations between one man and another are bound to suffer if one should commit an anti-social act (2001: 25).

Shona cosmology, as noted, centres the role of Vadzimu. The Vadzimu, however, are a subordinate to the Supreme God, Mwari in Shona or Umlimu in Ndebele. Makuvaza (2008: 164)

notes that “the Shona people believed that Mwari was the highest and final authority behind their ancestors (Vadzimu)”. Interestingly, dissidence is allowed even against Vadzimu and Mwari. That is, Zimbabweans in general are “allowed”, for instance, to protest the sacred power and authority of madzitateguru (ancestors) and Mwari (God) through *nduri* (poems) that mock, ridicule and even insult these all-powerful Beings. This is akin, a little bit, to the Biblical Job complaining about God. Many popular songs from Zimbabwe carry the well-known lines “Seiko Ishe?” (Why, O, God?), “Pindurai mambo” (Please answer me, Dear God), “Matifurati-ra” (You have abandoned us), “Chido chenyu here ichi?” (Is this really your will, God?), “Madarireiko” (Why have you done this?), and so on. That is, it is very common for people to vent anger against the Almighty and the Vadzimu. The principle is that, if dissidence is permitted against God Himself, it follows that human governments and institutions can be challenged everywhere and always.

Nhetembo dzemadzinza (“family-tree” poetry) do not just praise the Cosmogony but also protested failure by Vadzimu and Mwari to do their jobs (Gombe 1998). This would usually be done through “*madanha nezvirevere...nhemeramuvhu, gudzira-mukanwa, bhende neminzvengure*” (that is, innuendo). An example of a poem that dissents even as it praises is the Soko Vhudzijena (White-headed Primate) genealogical poem which, while praising the Vhudzijena totem for grace, intelligence and leadership qualities, also slips in mention of the primate’s ugliness (“*vamahobi*”) and, most importantly, propensity for violence (“*Pagerwe rinongova jemedzanwa*”), theft (“*vanodya zvokupara*”; “*vanorarama nezvokuba*”; and laziness (“*marambakurima*”), exploiting others (*vaMudyazvarimwa*), and manipulation (“*Wawana damba nderake, asi mhani ndeyashe*”) (Gombe, 1998, p.31-2).

Other examples of checks and balances include the phenomena of *ngozi* (an unappeased aggrieved spirit of a deceased person that metes out retribution from the grave) and *kutanda botso* (fateful and ominous occurrences that take place because of a son or daughter’s maltreatment of his or her parents). The two are just some of the examples of *zviyera-yera* (“taboos”) that regulate social relations. Mphasha (2016, p.29) postulates that “any transgression against the social order is a taboo and this can lead the community in the undesirable situation.” Hence:

Taboos give a collective identity and a meaningful way of life. They help people to remember what should not be forgotten. People can destroy their own lives if they do not observe lessons given by taboos. For those who do not break taboos, their horizons are enlarged and their chances for a better and more meaningful life are improved (Mphasha, 2016, p29).

The power of so-called “taboos” is reinforced in proverbs such as *Miromo yevakuru hai-wire pasi* (there are always grim consequences to disregarding warnings by the elders). In the case of *ngozi*, a murderer who attempts to get away with murder will be “methodically haunted and tortured” by their deed, beginning with mysterious occurrences, misfortune and mysterious deaths of loved ones, until the murder is eventually confessed, and justice meted. Tirivangana’s (2012) doctoral thesis explores the phenomenon of *ngozi* in detail, showing that *ngozi* pervades Shona belief system and is still prevalent today. Muchadura (1967) by F. Ribeiro, *Waiting for the Rain* (1975) by Mungoshi, *Mashiripiti ngozi* (1970) by Hamandishe, *Kurumwa nechekuchera* (1974) by Runyowa, and *Mhosva inoripwa* (1981) by Hodzongi are seminal Zimbabwean texts that treat the nature, meaning and mechanics of the problem of *ngozi*. Essentially, *ngozi* is a warning to those who cause injury and death to others that they will not get away with murder. As the popular maxim goes, *mushonga wengozi kuripwa* (the cure of *ngozi* is justice/payback).

Broadly, *ngozi* is a warning to the powerful that abuse of power will not go unpunished and that even the weakest amongst us can get back at the powerful, even in death. Indeed, *ngozi* is an example of how the weak can punish the powerful in ways that the powerful cannot manipulate. For instance, a well-connected person can escape jail for murder by bending

the rules, using legal means and manipulating the judiciary, but they will not escape ngozi. This is because ngozi cannot be dealt with in a court of law or be settled as if it were a contractual dispute. One cannot use representatives or agents. Ngozi can be swift or delayed, but it is inevitable. Botso, on the other hand, protects the sacrosanct institution of motherhood from abuse by disrespectful children. Like ngozi, botso cannot be legislated again. Payback cannot be done through agents and brokers either. Instead one will have to fully and directly face up to their consequences. Skeletons will, sooner or later, tumble out of the cupboard.

The package of ngozi and botso are examples of dissidence-from-the-grave (skeletons in the cupboard) and come with vicious consequences which can only be reversed when one pays some form of compensation as a form of apology and acknowledgement of guilt. With ngozi there are no sacred cows – the rich and powerful are implicated. Indeed, it is a chance of the “dead” to arise again and exact the retribution that they were denied in their lifetime. The advantage is that they cannot be denied in death since the matter is now non-negotiable. The weak can thus console themselves after a massacre such as Chimoio or Gukurahundi that ngozi will exact its revenge. In the case of botso an estranged child who is punished for mistreating his or her mother. In cultural expressions the estranged child might lose mental faculties and live a tortured, unfulfilled life as the mother would be showing dissidence-from-the-grave. In some cases, the child driven to craziness by botso could return to some normalcy after buying his aggrieved deceased mother a blanket and brewing beer and inviting the living relatives and the community to a “forgiveness” ceremony. The idea was never for a parent to enrich themselves but to insist that their role as mothers be held sacred and to have their efforts recognised as they played a huge role in raising their children. In the same way, ngozi holds that every single human life is sacred. Those who are powerful should not treat other human beings as if they were insects.

In folklore these forms of protests are highly recognised and well understood as cultural expressions of discontent, protest or dissidence from-the-grave. It will not come as a surprise if some Zimbabwean observers were to conclude that Mugabe met the end that he did in 2017 because of the ngozi of all the people he is alleged to have killed during his 37 years in power, and that Mnangagwa will meet a sorry end too because of his role in Gukurahundi, and so on. Because of Mbuya Nehanda’s famous ngozi-injunction that mapfupa angu achamuka, the Smith regime might have fallen because of the ngozi of Mbuya Nehanda’s bones and all the skeletons from all the colonial massacres perpetrated on Africans since 1896. The reasoning is that this is ngozi at work. It can be surmised, also, that the reason the Gukurahundi issue has refused to go away in Zimbabwe is because there has been no apology, justice and payback. Only when these conditions are met will the matter disappear. As noted, ngozi only ever has one cure: justice. The ngozi of Gukurahundi stalked Mugabe and is now stalking Mnangagwa.

It is important to note two things here. Whether or not ngozi is real, the figure of Nehanda became critical in the fight against settlers especially during the second Chimurenga. Traces of her influences are present in Chimurenga songs invoking her name, such as the refrain Mbuya Nehanda kufa vachitaura kuti tora gidi uzvitonge (Mbuya Nehanda last words were ‘take a gun and liberate yourself’), and her dance of defiance (kongonya) which would become the signature dance in the Second and Third Chimurenga. Nehanda is joined in the pantheon of mythical ngozi- figures by the likes of Chaminuka, Mapondera and Chief Chingaira Makoni who is equally postured as one of the earliest dissidents. “In the myth Chingaira was unequivocally the embodiment of resistance; the hero ambiguously slain; buried, no-one was quite sure where; maybe to come again” (Emphasis added) (Ranger 1988, p.18). Ranger (1988, p.19), citing an inaccurate source’s claims that “Chingaira had been executed at Macheke, the meeting point ‘for Mtoko, Mrewa, Makoni areas on the one side and on the other is Svosve’, so that his spirit could animate all those areas”, acknowledges the power of these resurrections, whether based on fact or fantasy. Of some interest in this discourse of ngozi-as-dissidence is that the Svosve people in post- independence Zimbabwe were the first to lead the land invasions in 2000. Although Meldrum, in *Where we have hope* (2004) insists that the partici-

pants were bussed in by ZANU-PF to occupy white commercial farms, it is on record that the ZANU-PF government was initially against farm “invasions” and, indeed, ordered that the squatters be evicted, with riot police immediately deployed to conduct the summary eviction. Furthermore, Meldrum’s quibbling de-emphasises the reality of land-hunger in Svosve and implies that “mere villagers” have no agency.

The example of the *nhimbe* (harvest festival) is worth mentioning here. During harvest season, the community gathers to undertake tasks collectively in assisting an identified family (Gombe, 1998). Such occasions are usually done in rotation until every family gets an opportunity to host a *nhimbe*. Opaque beer is usually brewed and is served only to those who come to assist with the chores. It is during such occasions that social misdemeanor is addressed as the *nhimbe* platform allows for an uncensored conversation leaving no room for follow up or retribution after the *nhimbe*. Shonas say “*zvekunhime zvinoperera kunhimbe*” meaning what happens at the harvest festival starts and ends there, there is no carryover of such conversations outside. During such occasions, voices that are often muted outside *nhimbe* tend to come out challenging elders, community leaders or in-laws about their behavior, something that cannot happen outside a carnival of that nature. I would want to argue that social media just like *nhimbe* allows for dissent from aggrieved family members or citizens to register their discontentment with the powerful. Shona culture also protects Vazukuru (a sister’s or an aunt’s children) to dissent. They are the only people who often get away with insulting, mocking or ridiculing their uncles without fearing retribution. That is, they can say things that are normally off bounds.

This study could also have discussed allegories, ironies but i will limit myself lastly to dissident metaphors, allusions and analogies. Turner and Lakoff (1989, p.xi) define a metaphor as “a tool so ordinary that we use it unconsciously and automatically, with so little effort that we hardly notice it. It is omnipresent: metaphor suffused our thoughts, no matter what we are thinking about”. Mberi (2003) has discussed the use of Shona metaphors such as *mukomana uyu inguruve yemunhu* (literally, this boy is supposed to be a human being but has proven to be nothing but a pig), and *murume uyu ibere remunhu* (this man is supposed to be a human being but has proven to be nothing but a hyena). The reference to the pigs draws attention to untidiness, while the hyena analogy could mean one or both of two things; either the man likes meat a lot or he is a coward. In both cases we see the use of a dehumanising analogy in attempt not just to body shame but to human shame, what we will call extreme trolling. The Shona language is replete with examples of extreme trolling – where the humanity of a disreputable human being (or a human being seen to be disreputable) is questioned. Other examples are *imbwa yemunhu* (you are supposed to be human, but you are really a dog) *duzvi remunhu* (you are supposed to be human, but you are really a faeces), and *nyoka yemunhu* (you are supposed to be human, but you are really a snake), and so on. Linked to these examples of extreme trolling is the tradition of *zvituko* and *kunemera* where children and adults insult each other inside and outside the bounds of decency. Most *zvituko* focus on the anatomy, while other degrade the person’s kin, clothes, home and belongings. Every (extremely) angry Zimbabwean knows and resorts to certain types of these insults. This extreme trolling functions to provoke extremely, sometimes to fisticuffs or even blood feuds. A loose analogy can be drawn with the “Yo mama” insults. Those with a weak constitution often wilt in the face of such attacks. Others fight and insult back. In Zimbabwe, it is common knowledge that the one statement that always leads to a violent fight is *beche ramai vako* (Your mother’s vagina). If you want to draw a person’s attention (and ire), all you need to say is simply: your mother’s vagina. This will extremely humiliate the target, causing them to wilt in shame or fly into uncontrollable rage. Interestingly, this *chituko* about a mother’s privates is a gendered response to an attack on the sacredness of motherhood that we discussed earlier on *botso*. The figure of the mother is thus linked to that of *hunhu* and to social order and the social contract. To insult a mother is to break the social contract, thus imperiling the whole community. As we will see, some cases of social media dissidence in Zimbabwe appears to draw from the traditions of *zvituko* to put across points extremely. This

tactic seems to be one of attention seeking. Most Zimbabweans are familiar with these *zvitu-ko* and understand where they come from and the context in which they come from. Those foreign to Zimbabwe may, however, struggle to place certain meanings and figures of speech. Therefore, it is important to relate social media dissidence in Zimbabwe to specific aspects of “sociality” within which dissidence and media use are grounded.

3. Hypotheses

- Our argument: Social media enables citizens to publicly insult, mock, laugh, joke, speak back to, mobilise against, and *svereredza* (troll) the powerful, a practice which was not previously publicly possible without the cultural protection of *ngano* (folklore) and *nhimbe* (festival of work). We argue that there has been a revitalisation, merging and upgrading of *kusvereredza* (trolling), *ngano* (folklore) and *nhimbe* by social media.
- **Nhimbe:** During harvest season, the community gathers to undertake tasks collectively in assisting an identified family (Gombe, 1998). It is during such occasions that social misdemeanour is addressed as the *nhimbe* platform allows for an uncensored conversation leaving no room for follow up or retribution after the *nhimbe*. We argue that social media is acting as a form of *nhimbe* with inbuilt protections for ordinary citizens against retribution by the powerful. The forms of protections might include the ability to troll power through the use of parody accounts and blowing the whistle in a public platform that makes it almost impossible for powerful elites to retaliate without exposing their pettiness.
- *Ngano*: “The theme that recurs most in Shona *Ngano* is that the small and the handicapped should be heroes. Orphans, widows and the poor, including the despised, are usually endowed with powers and capabilities greater than usual human strength” (Gudhlanga and Makaudze 2005, p.2292).. We argue that social media, to some extent, plays this role that *ngano* played, giving the subalterns power to force powerful elites to account. We draw from this form of trolling when we discuss the *Nehanda Nyakathickana* example.

4. Case Studies

Case #1 #boycottdairy

Dairy is a dairy products company that was established in 2008 to fill the gap in dairy related products. The company supplies products such as milk, ice cream, yoghurt among others. In March of 2021, the government of Zimbabwe issued a statutory order (Statutory Instrument 50 of 2021) evicting ethnic minority group of the Shangaan/Tsonga tribe from their ancestral land to give way to the owner of Dairy to start farming lucerne grass used to feed cattle. The land gazette covered over 12 thousand hectares of land in the Chilonga area. Soon after this gazette, *vasvereredzi* (online trolls) started calling out the government for abuse of this ethnic group by forcing it off its ancestral land to give way to the President’s close ally, Darren Coetzee. The government through online trolling and later protests offline was forced to abandon the move registering victory of cyber trolling (Figure 1).

Case #2 *Nehanda Nyakathickana*

In December 2020, Zimbabwe’s President Emerson Mnangagwa unveiled the statue of Zimbabwe’s matriarchy, *Nehanda Nyakasikana*. Soon after this event, online trolling started with citizens mocking the statue as they argued the statue did not properly represent the matriarchal leader of the first Chimurenga war. *Vasvereredzi* (twitter trolls) laughed at the statue stating that unlike the *Nehanda Nyakasikana* they had been exposed to in history, the one on the statue was thick leading citizens to call her *Nehanda Nyashathickana* (Figure 2). Following the online trolling the President was forced to make an about turn and commissioned a new statue which was well received (Figure 3).

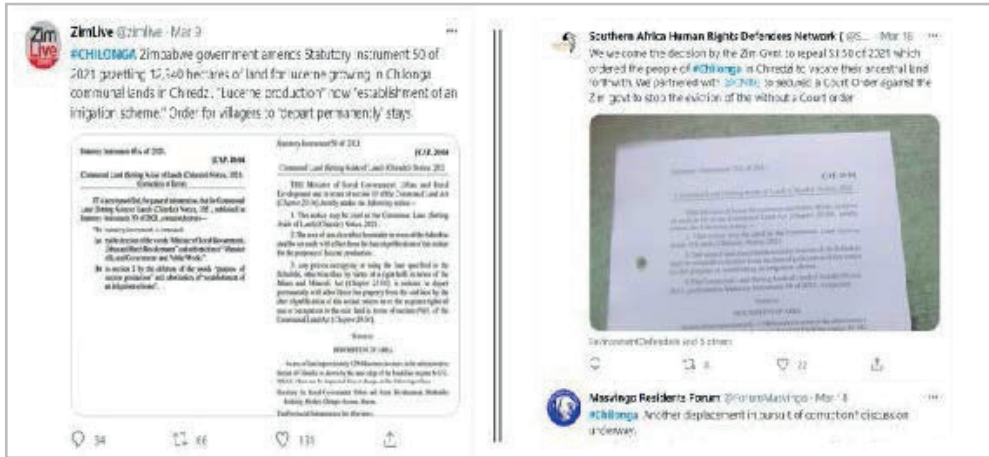


Figure 1: Above figures show government gazette ordering the eviction of the Chilonga communities and on the right side shows the government reversing that instrument following online trolling.



Figure 2: The figure shows the initial statue that was meant to be unveiled and after received scorn in the cybersphere was abandoned.



Figure 3: Above is the figure of Zimbabwean President, Emerson Mnangagwa, unveiled a statue that was commissioned after the first one was abandoned.

Case #3 Tsvimbo yeNyika

Zimbabweans have always accommodated traditional beliefs together with Christianity. This syncretistic approach has seen citizens, during the colonial times, appealing to both God and their ancestors for intervention and salvation from colonial domination. In the cultural ancestral beliefs has been an association of mystical scepters to the issue of power consolidation. The scepter (tsvimbo) was popularised by Zimbabwe's iconic nationalist, Joshua Nkomo, who always appeared at political rallies with his *tsvimbo*. In Zimbabwean mythology, there is belief that this scepter ended up with late President Robert Mugabe. Upon Mugabe's ouster and ultimate death, there has been an endless war between the family and the incumbent leadership over his burial place. The family won the burial rights and buried his remains at his ancestral home of Zvimba. However, this has not stopped the incumbent regime from having his remains repatriated to the country's national shrine, the National Heroes Acre. At the time of writing, the provincial magistrate had ruled against the family ordering that Mugabe's remains be exhumed. At the centre of this battle has been a belief that the incumbent President wants access to the scepter that allowed Mugabe to stay in power for almost four decades as shown in figure 4. When the issue entered the social media sphere, the government was forced to distance itself from moves to exhume the remains as seen in figure 5. However, with latest developments it is not inconceivable that while forced to retract when the story received the national attention, the government continued with its pressure through co-option and coercion of traditional chiefs and magistrates as they try to force exhumation of Mugabe's remains.



Figure 4: The image above shows one of the allies of President Mnangagwa and Independent Member of Parliament defending the exhumation of Mugabe's remains claiming the importance of a *tsvimbo* (scepter) in the country's political life.



Figure 5: The government of Zimbabwe was forced to deny any involvement in the bid to have Mugabe's remains exhumed.

Case #4 Kazungula Bridge

Kazungula Bridge is a road and rail bridge over the Zambezi river between the countries of Zambia and Botswana at Kazungula. In August 2007 the governments of Zambia and Botswana announced a deal to construct a bridge to replace the existing ferry. The \$259.3 million (R4.4 billion) bridge was opened for traffic on 10 May 2021. Stretching for 923 metres (some 3,000 feet) over the Zambezi River, the curved Kazungula bridge provides a long-needed alternative route for hauliers. The Zimbabwean government officials claimed their government had been part of the construction without providing any evidence. This claim led to *vasveredzi* laughing off the claims (Figure 6).

Even after being exposed for the lies, the government spokesperson who uses the twitter handle @Jamwanda kept insisting that Zimbabwe was a part owner (Figure 7). This insistence demonstrates the limits of *kusvereredza*, not all trolling results in change of behavior in certain instances it helps entrench lies. While in the case of Dendairy and Nehanda statue the government was forced to revise its stance, in the case of Kazungula bridge the government has continued to dig in.



Figure 6: The image shows that Mnangagwa was an invited guest at the unveiling of the bridge, dismissing the claims of Zimbabwe being a co-owner.

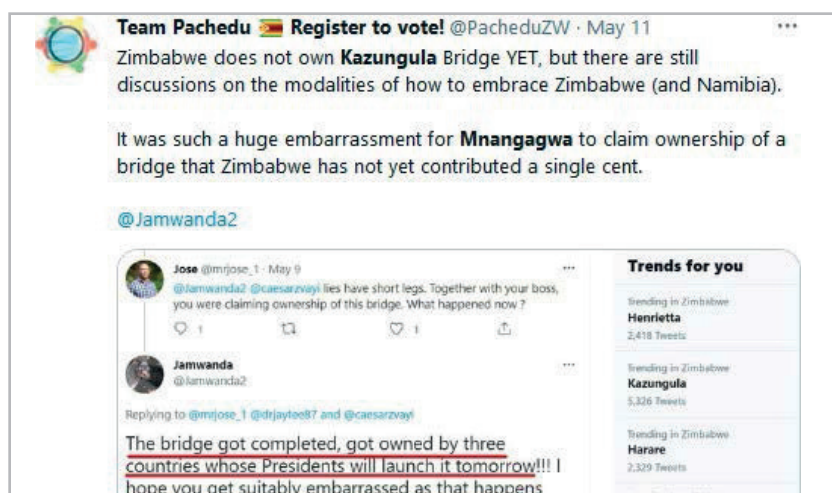


Figure 7: The figure shows an exchange between a cyber activism group calling itself @TeamPachedu with the government spokesperson who uses the handle @Jamwanda2 insisting that Zimbabwe is a part owner of the bridge.

5. Conclusion

This study made a seminal contribution to the ongoing debates around the perceived influence of social media affordances in power reconfigurations between citizens and powerful elites in the society. This chapter argued that online and digital platforms have altered the traditional practice of *kusvereredza* which have been part of African and Zimbabwean people's cultural experience. However, the study also found that the virtual mediated *kusvereredza* is a double-edged sword which can also be turned against the very same *vasvereredzi*. Demonstrating the power of social media to force the government to change, even minimal changes, is the case of the #Nehanda statue which was improved because of the trolling, thus ultimately benefiting the state. The study also observed that while online pushback registered early victories in halting the evictions in Chilonga, the state could have learnt how to go by the same intended benefit next time. How far-reaching are the "changes" caused by online *kusvereredza*? This leaves cases for future studies especially when investigating the limits of online protest especially on those on the ground, like the Chilonga communities. The same questions linger for the exhumation of Mugabe's remains as at the time of this submission a magistrate has ruled that the exhumation should go ahead. While it is difficult to draw parallels between online activism and offline activism, this study leaves room for future investigation that might potentially probe if civic participation online translates to civic participation in the "real-world".

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Web Analytics in Journalism: A Review and Synthesis of the Literature

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Abstract

The development of online journalism across the last two decades together with the recent advances in information technology has had a significant influence on basic journalistic work processes and routines. Online news consumption is now widespread and as content is being consumed in many different devices and contexts, the interest in monitoring web traffic numbers has been intensified for news companies and anyone who publishes online news-worthy content. In this context, a great body of literature shows that newsrooms have embraced the use of web analytics and utilize them to gain a better understanding of their readers as well as valuable insights about their news content. These traffic reports provide the media with a wealth of immediate information such as what stories users are reading and how much time they are spending on a specific story, the number of visitors or the traffic sources. Building on an extensive and systematic review of international academic research, the purpose of this paper is to explore, identify and synthesize the key elements of how news organizations are using various audience metrics and quantitative measures along with their impact on news content and publishing practices. The literature review was based on around 40 full text academic articles published from 2000 and onwards by top journals in the field of journalism and communication studies. The articles were screened, analyzed and reviewed to draw findings and discussion for this study as well as to offer the basis for future research directions in the field of digital journalism.

Keywords: Online journalism; Digital journalism; Web analytics; Web metrics

Introduction

The development of internet technology over the past few decades has radically changed the media industry not only by providing news ways of audience interaction but also by providing new ways of audience measurement. In this new digital media environment, the new technologies have impacted significantly on the journalism profession where main work processes such as newsgathering, news production and distribution have been transformed considerably (Singer, 2005; Napoli, 2010; Ferrucci & Tandoc, 2015). Nowadays, the modern journalist is expected to be able to use a variety of tools and services among which there are stand-alone software packages and Internet services. In addition, he must possess different skills and be able to adapt to new Information and Communication Technologies (ICT) requirements (Veglis & Pomportsis, 2014; Giomelakis *et al.*, 2021).

Today, Internet and news websites are considered to be amongst the most common pathways to news content as people tend to be informed about current affairs via the Internet. Given the influence of the online channel of information is extremely significant nowadays; the interest in monitoring users' online activities along with the importance of studying the data has intensified (Kent *et al.*, 2011; Clifton, 2012; Hausmann, Williams, & Schubert, 2012). In this regard, Web Analytics can help media professionals and website owners understand how their audience find, consume and interact with online information by providing web metrics that refer to any quantitative and aggregated measure of preferences, passive viewing or consumption of content by online users (Krall, 2009; Zamith, 2018a).

In recent years, news media outlets around the world have embraced the use of Web Analytics which are increasingly incorporated into many aspects of news production and distribution. As content is moving online, circulation numbers are replaced by website traffic num-

bers since measuring the reach and readership of publications still remains crucial for media companies (Bessonova, 2013). No doubt, the process of digitization and platformisation of journalism profession has led to an explosion of available data on media users' online behavior (Hendrickx *et al.*, 2021). However, these developments raise questions about how journalists use Web Analytics and their impact on news work in general. Studies have documented the ways journalists are using audience metrics in various ways, ranging from deciding where to place stories to news writing affection (MacGregor, 2007; Lowrey & Woo, 2010; Anderson, 2011a; Usher, 2013; Tandoc & Jenner, 2013; Vu, 2014;).

This paper aims to contribute to and extend the body of knowledge on how newsrooms are using Web analytics and the reasons behind the use of such quantitative measures. Building on an extensive and systematic review of international academic research, the purpose of this paper is to explore, identify and synthesize the key elements of how news organizations are using various audience metrics and quantitative measures along with their impact on news content and publishing practices. The literature review was based on around 40 full text academic articles published from 2000 and onwards by top journals in the field of journalism and communication studies. The articles were screened, analyzed and reviewed to draw findings and discussion for this study as well as to offer the basis for future research directions in the field of digital journalism.

1. Web Analytics Definition

According to a definition provided by the formerly known as Web Analytics Association, and from 2012 onwards as Digital Analytics Association, Web Analytics can be defined as "the measurement, collection, analysis and reporting of Internet data for the purposes of understanding and optimizing Web usage" (Web Analytics Association, 2008). In other words, a collection and analysis of data relating to website visitors and consumption of online content (Miller, 2011; Krall, 2009). These measurement tools can provide information concerning varying aspects of audience, including, but not limited to, the audience behavior and audience exposure such as traffic sources, page views and the most popular pages, daily visitors, the visit depth, the average visit time on site, the geographic distribution of visitors, and plenty of other data. All the above metrics can be compared over time providing valuable information and insights for website improvements or decisions about campaign effectiveness (Kent *et al.*, 2011; Clifton, 2012). In short, besides the prediction of user behavior, the strategic goals of Web analytics are the effective redesign of a website according to users (Norguet *et al.*, 2006), the improvement of the quality (Weischedel & Huizingh, 2006) and finally getting insights for better disposal.

It is important to understand that, Web analytics is not only a flood of data. Editors and website owners should interpret the metrics into valuable information, but also take advantage of them to reflect website goals and objectives (Clifton, 2012). With Web Analytics it is easier to see a website from the perspective of its users (Spiliopoulou, 2000) and today, understanding why something is happening on a website can be considered as a valuable management skill (Kent *et al.*, 2011). Web analytics are used by many professionals from different sectors such as e-commerce, libraries, eTourism, news industry as well as media websites (Hasan *et al.*, 2009; Plaza, 2011; Yang & Perrin, 2014; Giomelakis *et al.*, 2019) in order to analyze online users' behavior and measure a Web site's performance. The use of web analytics in business is deemed effective and useful both for profit and non-profit organizations (Phippen *et al.*, 2004) and analytic data needs to be interpreted in context so that they are more meaningful.

Even though, the use of Web analytics systems is relatively new (Nakatani & Chuang, 2011), the number of tools and services available on the market is extensive and diverse (Hassler, 2010) (Nakatani & Chuang, 2011; Clifton, 2012; Zamith, 2018a; Giomelakis *et al.*, 2019). Thus, many organisations employ multiple tools in order to gain useful insights for their online presence. In this context, undeniably, Google Analytics (introduced in 2004) is considered globally as the most popular Web Analytics package and a leading tool for sales, marketing and

advertising reasons (Kent et al., 2011; Stanhope et al., 2011; Marek, 2011). This Google service provides many built-in reports, charts, and tables and it is attractive to users because of its free availability, tremendous features, and ease of use (Fang, 2007; Marek, 2011).

2. Web Analytics and Audience Metrics inside Newsrooms

Undeniably, the Internet has changed the way readers access information from news media outlets and also how news practitioners access information about their audiences (Napoli, 2010). In this context, the use of Web analytics and audience metrics can be described as the ‘systematic analysis of quantitative data on various aspects of audience behavior aimed at growing audiences, increasing engagement, and improving newsroom workflows’ (Cherubini & Nielsen, 2016). Web Analytics, as mentioned previously, provide the media with a wealth of immediate information about their readership such as what stories users are reading, how much time they are spending on a specific story, how many visitors are on the site, demographics or the different traffic sources. Particularly, prior research focused on the specific user metrics has indicated that the number of clicks is considered as the most dominant metric in newsrooms (Slacek Brlek, 2018) and also that, pageviews and unique users are considered as “the most developed metrics” (Cherubini & Nielsen, 2016). In this new media environment, big screens in newsrooms which constantly display real-time user data metrics including unique users, time spent, pageviews or most-read articles is increasingly common (Cherubini & Nielsen, 2016). The findings of a relevant study conducted by the International Center for Journalists (2017) showed that the majority of the newsrooms in 130 countries only used basic audience metrics in their everyday daily routine. In short, metrics that refer to the traffic volume are still used extensively, while metrics concerning aspects such as audience engagement, recirculation or exit page seem not to be heavily used (ICFJ, 2017). In modern newsrooms, analytics and audience metrics are used as a form of gatekeeping (Tandoc, 2014; Vu, 2014; Le Cam & Domingo, 2015; Hanusch, 2017; Christin, 2018), together with other measures of popularity such as social media shares and audience comments (Chin-Fook & Simmonds, 2011; Tandoc & Vos, 2016; Duffy *et al.*, 2018).

Nowadays, newsrooms have embraced the use of Web Analytics and news professionals now use them at varying degrees in their daily routines to gain maximum insight about their web content such as to decide on which stories require follow-ups, on the placement of stories as well as the necessity to add photos or multimedia content (MacGregor, 2007; Lowrey & Woo, 2010; Dick, 2011; Usher, 2013; Anderson, 2011a, 2011b; Vu, 2014; Ferrucci & Tandoc, 2015; Lee *et al.*, 2014). A 2013 study in the US concluded that 84 percent of newspaper editors monitored Web traffic regularly, with 52 percent of them monitored on a daily basis (Vu, 2014). Regarding the use inside the media industry, Lamot & Paulussen (2020) mention six uses of analytics. More specifically, audience analytics can inform editorial decisions on story placement, story packaging, story planning and story imitation, but also they can serve as instruments for performance evaluation and audience conception. This ability to track how the audience consume information is shaping news content in two channels (Blanchett Neheli, 2018, 2019): first the promotional, where real-time data are used mainly, in the placement and positioning of content in order to build instant traffic; and second, developmental, where audience analytics are used in a longer view concerning the story selection, the management of resources, formatting or future promotion of stories.

3. Differences between Newsrooms and Internal Pressures

The use of web analytics in journalism has been mapped in several studies across various media contexts and countries, highlighting the evolution in the use of web metrics throughout the media industry. Most studies have focused on newsrooms in the United States (Vu, 2014; Tandoc, 2015; Powers, 2018; Nelson & Tandoc, 2019; Zamith *et al.*, 2020) and Europe (Gynnild, 2008; Thurman & Myllylahti, 2009; Giomelakis *et al.* 2019; Lamot & Paulussen, 2020; Lamot & Van Aelst, 2020; Hendrickx *et al.*, 2021), however other countries from all over the world in-

cluding China (Wang 2016), Australia (Hanusch, 2017), Kenya (Bunce, 2019), Singapore (Dollah & Tandoc, 2020) and the Philippines (David *et al.*, 2019) have also been studied. Undeniably, all newsrooms and media outlets do not follow the same practices regarding the use of Web Analytics. For instance, smaller newsrooms and media organizations may be behind larger ones regarding the adoption of audience analytics in their daily news work (McKenzie *et al.*, 2011; Ali & Radcliffe, 2017). The adoption of audience-tracking tools can vary across organizational settings, work practices and also depends on management directives and how these are communicated (Boczkowski, 2004, McKenzie *et al.*, 2011, Petre, 2015). In a relevant study drawing on Bourdieu's field theory, Wang (2018) proposes a dimensional model to understand the journalistic field and its adoption of audience metrics as a trend and regarding the individual level, one's journalism background can play a role. Also, Vu (2014) indicated that higher levels of journalism education tended to produce lower use of audience metrics and according to other studies, the degree of managerial and journalistic experience may also have an impact, with managers holding more favorable attitudes (Belair-Gagnon & Holton, 2018; Hanusch, 2017). In this context, a study by Zamith *et al.* (2020) indicated that experiences are influenced by the organizational context and the individual's position in the editorial hierarchy. Interestingly, Belair-Gagnon & Holton (2018) stressed that the integration of audience metrics inside newsrooms depends also on external pressures from web analytics companies while Dollah & Tandoc (2020) refer to three competing forces that influence web analytics use: the social system, market pressures and the need to protect journalistic autonomy. In many cases, there is often an emphasis on metrics that is interpreted differently by news practitioners in different newsrooms (Usher, 2010). This practice brings about new modes of selection, producing and editing news content, as for example the use of search engine optimization (SEO) (Giomelakis & Veglis, 2019) in order for editors to improve their visibility and position in search engines and have a better chance of being read (Dick, 2011; Giomelakis & Veglis, 2016). As a result, in a constant struggle to attract more readers, news practitioners have been changing the way they write headlines for their news articles, by using stylistic techniques, words or phrases or that are known to perform well and attract more clicks (Kuiken *et al.*, 2017).

According to literature, audience metrics has also become a management tool in some newsrooms to assess editors' job performance (Bunce, 2019; Tandoc, 2015) and to prompt productivity (Petre, 2015). In some newsrooms, managers may use metrics to directly punish or incentivize their journalists by using tactics such as making all audience data public, rewarding and punishing performance, setting strict targets or creating paid models according to the traffic journalists achieve (Petre, 2015). By using audience traffic data, managers can use these tools to discipline their team in agreement with the profit motives and the efficiency of the news organization (Lamot & Paulussen, 2020). Undeniably, the sense of being monitored may affect the news work and urge news practitioners to comply with managerial priorities, making them more present and influential inside the newsroom (Bunce, 2019). Therefore, newsrooms are being increasingly asked to cater to audience interests so as to generate more online traffic and 'clicks' (Tang *et al.*, 2011), even if this comes at the expense of journalistic values (Cohen, 2002). In this new media ecosystem, editors who perceived the financial benefits of getting high readership are more willing to make editorial changes, based on audience web metrics (Vu, 2014) and when there is financial uncertainty, they tend to monitor traffic based more on survival instinct (Lowrey & Woo, 2010). This emphasis on traffic and popularity as well as the need to attract advertisers and increase revenue has been found also in other studies (Heinderyckx, 2015; Bright & Nicholls, 2014; Bunce, 2019; Lee *et al.*, 2014; MacGregor, 2007; Vu, 2014; ICFJ, 2017; Cohen, 2018; Nelson, 2018).

4. Editorial Decision and Market Orientation

Several studies have examined the effect of Web analytics on the selection and placement of news stories. A study of news media outlets in England conducted by Bright & Nicholls (2014) found that articles appearing on a most-read list had a lower risk of being removed

from the homepage than articles that did not. Moreover, news articles on the most-viewed list were more likely to receive subsequent reporting (Welbers *et al.*, 2016). In this context and based on a time-lagged analysis, Lee *et al.*, (2014) concluded that audience preferences impact on subsequent news placement and the prominence editors give to news stories. Despite this, the results of another study (Zamith, 2018b) indicated limited effects of an item's popularity on its subsequent prominence and a large divergence between popular (audience agenda) and prominent (editorial agenda) items. In a study of Lamot & Van Aelst (2020), news practitioners were found to rank stories with positive analytics data higher on a fictional homepage of a news outlet, leading to the conclusion that the notion of newsworthiness is influenced by audience metrics. The use of web analytics allows media professionals to be more aware of and more responsive to audiences' preferences but also it can impact on the editorial autonomy, making news workers occasionally "re-weight" editorial priorities and news agenda as a result (MacGregor, 2007; Anderson 2011a; Dick, 2011). The results of a Finnish study (Thurman & Myllylahti, 2009) showed that the traffic was a significant factor regarding the writing and the selection of news stories while studying Norwegian news media, Gynnild (2008) found that journalists acknowledge checking the metrics up to twenty times during a shift. However, as already mentioned all newsrooms do not follow the same practices and the results of another study showed that 62.1% of editors track Web Analytics daily but only 7.8% were influenced by metrics regarding story selection (Lowrey & Woo, 2010). In this regard, Fink & Anderson (2015) concluded that only a small number of the interviewed media professionals actively embraced the use of audience data and metrics for editorial decision. Furthermore and regarding local journalism, online audience preferences and audience analytics do not seem to have an agenda-setting impact on local editors who defend their values and practices (Singer, 2011).

Finally, the market orientation seems to play a crucial role on how new technology and specifically metrics are incorporated into news work. A characteristic example is the case of Al Jazeera which is funded by its government (there is no pressure to increase web traffic) and even if its journalists recognize the usefulness of Web Analytics, often their work and editorial decisions are not affected by web metrics (Usher, 2013). In a relevant study by Karlsson & Clerwall (2013), the findings indicated that public service journalists look to clicks to 'prove' their relevance to their users, while professionals in the commercial outlets refer both to relevance and to economic factors. In fact, news media outlets aiming for popularity monitor clicks in depth, whereas those, whose brand identity relies on quality, emphasize the value of their professional judgment (Welbers *et al.*, 2016). Finally, comparing a strongly market-oriented and a weakly market-oriented newsroom Ferrucci & Tandoc (2015) found that Web Analytics had an influence on editorial decisions in both news media outlets.

5. Discussion and Conclusions

Journalism has always been closely connected to technology, and media professionals have long been normalizing new information and communication technologies (ICT) to fit their existing norms and routines (Singer, 2005; Ferrucci & Tandoc, 2015). The so-called "rationalization of audience understanding" is not only an Internet-era phenomenon (Napoli, 2010) and news media outlets have been getting information about their readership long before Web Analytics. It might be thought that these represent a new form of market and audience research (Ferrucci & Tandoc, 2015), that can be characterized as more immediate (real-time) and more accurate regarding the preferences of the actual audience (MacGregor, 2007; Napoli, 2010; Ferrucci & Tandoc, 2015) in contrast to traditional forms of audience research (e.g. broadcast ratings, letters, phone calls). This direct feedback and knowledge gained from audience analytics can allow organizations to serve their audiences better (Tandoc & Jenner, 2013) as well as improve the multi-channel distribution of news (Hanusch, 2017) and thus, many media professionals tend to double-check their instinctive guesses with tracking data utilizing readers' feedback to enhance their ultimate journalistic product (Anderson, 2011a; MacGregor, 2007).

After decades of trusting their own instincts and ignoring audience desires, (Fishman, 1980), media professionals now seem to be more adaptive to consumer needs. This kind of exposure to audience feedback, together with a more unstable financial situation, seems to prompt news organizations to experiment with their news offerings and also drives media professionals to change how they perceive their roles in producing news that people want to know (i.e. consumer-oriented), rather than sticking to traditional, public-service mission (Loosen & Schmidt, 2012; Hanusch, 2017; Tandoc, 2014). However, adhering to clicks and uncritical use might lead to the trivialization of news and “a disaster for public life in the long term” (Nguyen, 2013, Kormelink & Meijer, 2018). In this vein, Shu *et al.* (2018) argue that news media organizations may be confronted with losing their audience’s trust and diminishing their brand value when aiming at attracting clicks. Also, even though clickbaits may trick the readers into clicking, in the long term, they usually leave the readers disappointed (Chakraborty *et al.*, 2016). In contrast, editorial decisions should be informed, not led, by audience metrics and digital data in general. News media outlets have to evaluate first their own ‘analytics capability’ considering their organizational structure as well as the culture of their newsroom together with accessible and suitable technological tools, tailored to their needs (Cherubini & Nielsen, 2016). As Zamith stress (2015) the question should not be, is the use of audience analytics and metrics ethical? But, how audience analytics and metrics can be used ethically?

Today, audience metrics have become an important indicator to assess news values at different stages of news making, despite the fact that media professionals all over the world show different attitudes towards the adoption (e.g. Domingo *et al.*, 2008; Lewis *et al.*, 2010; Robinson, 2009). In a nutshell, the contradictory attitudes to this may depend on different employment levels as well as norms and practices in newsrooms (Usher, 2013; Welbers *et al.*, 2016). It is true that many media professionals tend to remain hesitant at best and fearful at worst in accepting user metrics as an integral part of their daily news work and also that this relationship between journalism and metrics cannot be evaluated without addressing and tackling other existing gaps and differences between journalists and titles under the same company (Hendrickx *et al.*, 2021). According to a recent report from the Reuters Institute (Cherubini & Nielsen, 2016), the common element observed in many news media outlets across the Europe and the United States that lag behind best practice is the lack of a newsroom (editorial analytics) culture together with the use of generic, popular tools (and not own home-grown solutions) in contrast to other leading news organizations such as the BBC, Guardian, The New York Times or Huffington Post who work continuously to develop and improve their approach. In short, the absence of a distinct Web Analytics team is evident, a situation that is common in most continental European newsrooms and may be related to financial uncertainty where media professionals with many other responsibilities often deal with audience development (Cherubini & Nielsen, 2016). However, in a constantly changing and competitive media environment, no one can take their readership for granted and the use of web metrics seems to be an essential tool for editors, bloggers, media professionals and anyone in general who publishes newsworthy content. Web analytics can help media outlets and journalists become more data informed even though the editorial and qualitative judgment remains of great importance. No doubt, quantitative analysis by using metrics has to be supplemented by traditional journalistic skills and editorial expertise. In the new digital media landscape editors need to understand the meaning of the data by adopting a new culture in their news work and web metrics need to be interpreted in context in order to be more meaningful.

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SECTION: 2
PUBLIC SECTOR COMMUNICATION

Public Sector Communication Facing the Challenges of Open Government: Exploring the Italian Context

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Abstract

A renewed attention on public sector communication is emerging among scholars from different countries and disciplines in a context characterized by a deeply changed media ecosystem (with a widespread use of social media) and in the open government process. Public Sector Communication has to face new challenges and the traditional key-words of public sector communication as transparency, accountability, listening, participation and governance are gaining new meanings in the new digital environment.

Considering the international literature on public sector communication, with a specific attention at those scholars who have investigated the consequences of digital innovation in the public sector in order to shorten the distances between institutions and citizens, this paper will offer a critical examination of the Italian case. In particular, it will offer an analysis of the several interpretations on the public sector communication (models, paradigms, historical phases, etc.) traceable in Italian literature. Its aim is to highlight what is still relevant, what has inevitably changed and what needs to be innovated in the communication management processes.

Specifically, this theoretical study addresses the following research questions: how has public sector communication been conceptualized and promoted in the last thirty years in Italy and how is it defined in relation to a deeply changed context? What challenges does public sector communication have to face in order to manage the new digital environment? To answer these questions, this contribute is based on the literature review and on the empirical studies specifically related to the Italian public sector communication.

The study's findings might be questioned on communication new models that could be necessary in order to increase the public sector communication effectiveness.

Keywords: public sector communication; social media; open government; transparency; public sector communication challenges

Introduction

In recent years, a new scholarly attention towards the public sector communication in different countries and disciplines has emerged. The communication activities increasingly play a strategic role in public sector, above all because public organizations need to build a new relationship with citizens, in order to gain their trust (Chadwick, 2013; Bessières, 2018; Canel, Luoma-aho, 2019).

In this paper¹, we will examine the principal characteristics that the public sector communication assumed in the past and those it is adopting today in the digital transformation process. We will focus the attention on the challenges that public sector communication is facing, in a context of open government and of participatory cultures related to a widespread social media use among the population (Jenkins, 2006; Dalghren, 2009). In particular, we analyse the Italian context, considering the main authors' contributions during the last thirty years.

1. The Integration of New Digital Technologies and the Open Government Pillars in a Public Sector Communication Perspective

Beginning during the 1990s, the integration of new digital technologies in public sector communication has been taken up in numerous countries thanks to stimulation received from both the European institutions and national governments.

1 For further information on the study that is the subject of this paper, see Ducci et al. 2020.

The new digital environment seems to offer answers to 3 main areas of public administrations requirements: from the need to increase levels of trust and legitimation around their action (Fukuyama, 1995; Rosanvallon, 2006; Bessières, 2018), to the need to increase the level of citizen satisfaction (Lev-On, Steinfeld, 2015; Porumbescu, 2016) and the need to achieve greater two-way communication (Mergel, 2013), crucial for the citizens' involvement in affairs of general interest and for the public administrations to gradually come closer to citizens (Dozier et al., 1995). Therefore, digital technologies are considered not only strategic tools for enhancing public participation, dialogue and interaction with citizens (Lee, Kwak, 2012), but also change agents (Bertot et al., 2010), actors of innovation (Mergel, Bretschneider, 2013), with a transformational potential (Bonson et al., 2015) of the public sector communication culture. In this framework and for these reasons, both scholars and professionals have seen digital media as a great chance for reconnecting public administration with citizens and strategic publics, pursuing and nurturing public relations in an open government context (Kent 2013; Canel, Luoma-aho 2019; Lovari, Materassi, 2020).

Open government is a new paradigm of local and central governance based on exploiting the potentials offered by new digital technologies to place the citizen at the centre of the administrative action.

As the Open Government Partnership has underlined (Digital Agenda, European Commission 2014), open government pillars are transparency, participation, collaboration. These principles are not new for public administration (Ducci 2017; Canel, Luoma-aho, 2019), which has been undergoing modernization and simplification based on ICT for some time now, but in the open government perspective they take on a different shape, finding new impetus and realizational possibilities (using new digital and social media).

In a large part of western democracies, transparency is now recognized not only as citizens' access to public administrations documents, but as total transparency of institutions' processes, and it's related to open data. Data and information on the acts and decisions made by public administrations, have to be accessible and reusable to all on the web, but only a good communication can guarantee real transparency in public administrations (Zémor, 2013). A real transparency is possible adopting efficient institutional communication criteria, also in the case of the application of the Freedom of Information Act (FOIA).

Instead, as far as the participation principle is concerned, it is given new value in the open government sphere and becomes a crucial challenge for the public administrations, which are more and more encouraged to set up processes that see citizens and stakeholders play a proactive role in drawing up public policies. Once again, this principle and goal are not new for the public administrations (D'Ambrosi, Giardina, 2006; Coleman, Blumler, 2009; Dahlgren, 2009), but today they can be achieved more easily thanks to the social and participatory web and digital platforms set up for the purpose in the public sphere.

For example, recent years have seen the realization of numerous participatory budgeting projects or other pro-citizen engagement activities (i.e., public consultations for decision-making purposes) guided by local, national or EU public institutions (Bartoletti, Faccioli, 2013; Dahlgren, 2013) (fostered by European support policies). However, so that these processes may be really effective and inclusive, with widespread participation, it is deemed indispensable to strengthen the capacity to adopt suitable institutional public communication strategies (Canel, Luoma-aho, 2019).

Participation is closely linked to collaboration, the third pillar of open government. that involves the creation of partnerships between the various vertical and horizontal levels of the administration and between the administration and the various public entities/stakeholders. Within this goal, innovative forms of public service co-production and co-design are being tried out in different public sector contexts (e.g., solutions developed in the App Contests promoted by the public administrations) (Bovaird et al., 2015). In this case too, the same reflections as above on the strategic role of communication apply.

Therefore, considering the crucial role that public sector communication plays in achieving open government we shall now analyse a specific case: the Italian context.

2. A Theoretical Study: Aims, Methods and Research Questions.

Our study aimed to review the literature in order to collect those authors' "voices" in the Italian context that have fostered the debate on the specific field of public sector communication (Ducci et al., 2020).

We consider main contributions of those scholars and professionals that have tried to define the boundaries aims and operative routines of public sector communication (Rolando, 1995, 2014; Rovinetti 1994, 2010; Faccioli, 2000; Arena, 2001; Mancini, 2002; Ducci, 2007, 2017; Lovari 2013, 2016; Materassi, 2016, 2017; Solito 2004, 2014).

The research method consisted on the selection and consultation of the texts produced during 20 years, We made an independent and attentive reading of parts of the texts, which we then compared, sharing the points considered salient in order to come to an agreed critical vision.

So, by historically reviewing the field of public sector communication in Italy, through a critical reading of Italian literature and research, we tried to address the following two main research questions:

RQ1: How has public sector communication been conceptualized and promoted in the last thirty years in Italy and how is it defined in relation to a deeply changed context?

RQ2: What challenges does public sector communication have to face in order to manage the new digital environment?

3. Main Results and Discussion

Starting from the two research questions, we will reflect on how principles and models of public sector communication drawn up over time can be brought up to date with the new digital context.

3.1 Public Sector Communication: Definitions, Phases and Approaches, According to Italian Scholars (RQ1)

Over around fifteen years, starting from the end of the 1980s, in Italy an interesting and fruitful debate developed between scholars and professionals on "public communication" as an independent discipline and specific professional field. This debate accompanied and took account of the public sector reform and modernization processes aimed at creating a more efficient bureaucratic apparatus and overcoming the public sector's traditional self-referentiality towards citizens, enterprises, stakeholders, and employees

Leading scholars shared a very wide vision of public communication as "communication of general interest" (Arena 1995; Faccioli 2000; Mancini 2002; Rovinetti 1994; Zémor 1995), In this concept they include the communication activities implemented by various subjects (public sector, no-profit organizations, political organizations), concerning topics, services and activities that affect the collectivity, namely of public utility and not of specific interest (Rolando 1995, 2004).

Public communication is defined in all as

[...] the context and tool that permits the various actors that intervene in the public sphere to create relations, compare points of view and values in order to aim towards the shared goal of achieving the interests of the collectivity [...]. In particular, public communication deals with activating the relationship between state and citizens by implementing a process of interaction and exchange, creating spaces where citizens can be listened to while encouraging their participation in the choices behind the public policies (Faccioli, 2000, p. 43-44).

Public communication corresponds to a service culture on the part of the public employee oriented towards implementing those keywords in the modernization of public administrations: transparency, listening, simplification, participation, efficiency / efficacy and subsidiarity

(Faccioli, 2000), all of which are principles linked to a wider vision of shared and participatory administration (Arena, 2001).

Authors distinguish three main areas of public communication: political, institutional and social communication (Rovinetti 1994; Rolando 1995; Grandi 2000; Faccioli 2000; Mancini 2002).

Political communication aims to create electoral consensus and is promoted by parties, movements and pressure groups, as well as the political representatives of the administration (political leaders, single elected directors). Instead, institutional communication concerns all communication that aims to make the administration, its activities, services and choices known to the public. It also seeks to listen, engage, and foster participation, according to impartial and democratic criteria, among external public and internal public (Faccioli, 2000; Rolando, 2001; Rovinetti, 2002, 2010; Grandi, 2007). The social communication concerns communication activities to inform, raises awareness and stimulate ideas, behaviours or values on topics considered socially significant for the population, or so-called social problems (e.g., environment, health, safety, integration, etc.) (Tamborini, 1992; Gadotti, 2005).

At this regard, scholars underline the difference between political and institutional communication that often present areas and moments of overlap. In Italy, like in a large part of countries in the world, political communication is more prevalent than institutional communication (in a situation of permanent electoral campaigning) (Blumenthal, 1982; Solito, 2018).

As well as their efforts to make definitions, the authors proposed a phased division of the evolution of public sector communication in Italy which takes account of important reform interventions to simplify and modernize the public administration as well as the main transformations that have taken place in the information and media system in general.

The first phase from the birth of the Italian Republic (1946) to the end of the 1960s is deemed by all to be a phase of “denied information”, when professional secrecy was still in force and what the public administrations communicated to citizens was very filtered and often supplied in the manner of propaganda.

In the second phase (1970 – mid-1980s) the charters of the new-born regional governments for the first time asserted the right to access the information in the possession of the public administrations and entitled the regions’ citizens to participate in the administrative choices (Vignudelli, 1992; Faccioli, 1994). Furthermore, in the first half of the 1980s, exponential growth was seen in the media and publicity system, hence the public administrations tried to “equip themselves” by expanding their information system to obtain greater visibility in an increasingly intricate and complex public sphere, and a one-way communication with citizens prevails among public administrations. (Rovinetti, 1994, 2010; Faccioli, 2000; Grandi, 2000, 2007; Mancini, 2002; Solito, 2004; Ducci, 2007, 2017; Rolando, 2014).

The third phase (from the second half of the 1980s and in the early 1990s) is defined a “preparation phase” (Faccioli, 2013), when the bases were cast for the process to strengthen and enhance the concepts of information, transparency, listening and participation (ibidem). After a political system scandal known as “Bribesville” (“Tangentopoli”), a public sector communication process began to restore the state’s name and credibility (Ibidem). Two laws from 1990 (n. 241 e 142) ratified the citizens’ right to be informed, a right that was transformed into the administrations’ duty to inform (Rovinetti, 2002). The traditional professional secrecy was abolished, and every administration was obliged to guarantee transparency and access to documents (Faccioli, 2000; Grandi, 2007).

The fourth phase (early 1990 – 2000), is a “phase of experimentation and professionalization” (Faccioli, 2013). It was characterized by growing plans for a new organization of the public administration. Some regulations envisaged the adoption of specific tools to make the concepts of transparency, publicity, communication and access into exercisable functions (Rolando, 2001, 2014). Public Relations Offices (Uffici per le Relazioni con il Pubblico - URP) were established and made obligatory (decree no. 29/1993) to take care of the administration’s relationships with citizens and stakeholders. The two-way communication (bidirectional) ap-

proach is recognized as an ideal to strive for (Mancini, 2002), considering the citizen an active part of the communication.

More emphasis is given to the self-produced communication by the public administration (Ibidem), as well as to relationship with the information bodies. This communication approach is also associated with the control of “hetero-produced communication” (Ibidem) – eg. mass media communication - and to increase listening and participation (Faccioli, 2000; Arena, 2001), also with back-up from new technologies (citizen satisfaction surveys, institutional web-sites and portals; civic networks; platforms designed for participation, web 1.0 digital interactive systems).

The fifth phase (2000-early 2000s) is a “semi-institutional phase” (Faccioli, 2013), in which the new cultural of communication created during 90s, culminated with the adoption of the Law no. 150/2000 on “Public Administration Information and Communication Activities”. This law recognized the communication as an institutional obligation and permanent activity in public organizations, and it provided structures and professional figures for information and communication activities. The law distinguishes between political and institutional communication: political-institutional information (partisan) is entrusted to the Spokesperson’s office and strictly institutional information activities (apolitical, non-partisan) are attributed to the Press Office. External and international communication activities are expanded and assigned to the communication structure (URP or similar facilities).

In this phase, on one hand important regulations were adopted, on the other hand some issues remained unsolved, amongst which the full recognition of the profession of public communicator and inclusion of a system of checks/sanctions in the event of the failure to apply the regulations (Faccioli, 2013, 2016; Lovari, 2013; Solito 2014; Rolando, 2014; Ducci, 2017).

In the sixth phase (from 2000 to 2009), new measures were adopted to reform the public administrations, centred around the adoption of criteria to measure and appraise the accomplishment of the public organization and staff’s performance goals. In this “measurement and assessment phase” (Faccioli, 2013), the process to digitalize the services and administrative processes continued to develop in parallel, inevitably impacting on the public sector communication activities. But, as various authors observe, the role of institutional communication in the public administration modernization process no longer seems to be so central in the public debate. Digital innovation is often not connected to the activities of the public sector communicators, who hence risk not being sufficiently involved. Obviously, this does not mean that public communication is not based, in theory at least, on a two-way, relational and interactive communication approach, thanks to the use of new digital communication tools (Lovari, 2013; Solito, 2014; Ducci, 2017; Materassi, 2017).

3.2. A Renew Bidirectional/relational Public Sector Communication Approach

A new phase began in around 2009 with the revolution caused by web 2.0. Still continuing to date, this phase saw the advent of social and participatory media, as well as the start of open data and open government programmes.

Visibility and citizen engagement requirements are expanding within the administrations (Faccioli, 2016; Lovari, 2016, 2018; Ducci, 2017; Materassi, 2017): public communication is “bursting out” of its traditional boundaries, becoming “ubiquitous” (Solito, 2014, 2018).

The fluidity of the new communication processes cannot always be “governed” by the communication professionals who sometimes had difficulties in coordinating the social media use related to a problematic application of the Law 150/2000.

The two-way, bidirectional public communication approach (Mancini, 2002) can be updated to this most recent phase (Lovari and Piredda, 2017). In fact, the administrations have more possibilities to produce their own communication to reach, listening and dialogue with citizens (increasing the digital public relations) and to communicate with mass media and new opinion leaders (digital influencers) - increasing the “media relations” area.

At the same time, mass media have more tools to perform the action of watchdog over the public administration activities. Citizens can generate and share contents concerning public administrations. So, the ethero-produced communication grows and public administrations must increase their ability to control it.

In recent years, a new corpus of regulations to reform the public administration in Italy (from 2015 to 2018) has resulted in the introduction of the concept of total transparency. Wider than the 1990 concept and linked to the introduction of the Freedom of Information Act (FOIA), this involves generalized civic access from an open government perspective.

3.3. Challenges Questions (RQ2)

In the scenario described above, public sector organizations have to face many different challenges, in order to exploit the opportunities offered by digitalization and manage communication in the digital environment. We have traced 4 different dimensions which relate some of the main changing features of the digital relationships to the specific relational context between citizens and public administrations.

The first one deals with the adoption of a two-way communication paradigm. The dialogical model in the interpersonal communicative processes shifts the attention from the issuer to the receiver, giving rise to a more symmetrical and equal relationship. Although many best cases are flourishing around Italy – such as 3.0 help desks, apps, smart technologies, etc. (Ducci, 2017) -, a rigid hierarchical organizational structure seems to remain, inhibiting the social media employees' use and performances. The first challenging dimension asks public administration to reconcile the opportunities offered by digital technologies with an openness towards citizens' productivity, at the cultural prior to the strictly operational level.

The second dimension regards the difference between information and communication activities. In the Italian public sector communication context this distinction is not only a theoretical separation but it is strengthened at a regulatory level. Since the 2000s, it concerns the identification of structures, interlocutors and specific skills, both in the information and communication sphere. At the same time, after the spread of digital media, there are no regulations that outline the organizational or management procedures of Web and social media, where information and communication segments seem to slot together and intersect. This lack of regulations, especially in the public sector, challenges the organizations in order to find out how the traditional segmented and compartmentalized set-up of Italian bureaucracy could recognize and promote areas of overlap, answering both to the informative and the communicative citizens' needs.

The third dimension considers the implications of the digitalization on the skills of the communication staff. The question of the recognition and legitimation of the roles and professional figures engaged in public communication has accompanied the discipline right from the start in Italy and in other countries too (Grunig, Jaatineen, 1999; Bessières, 2018). If in the 2000s the public sector communication actors could be slotted into traditional categories – journalists, press secretaries, PR agents, political communicators, etc. - today a much more fluid classification of the skills is necessary and new profiles - i.e. social media managers, digital strategist, etc. - must be added. In this spirit, public administrations need to blend the “old” and the “new” skills together, in order to manage all the communicative environments – traditional and digital ones - with a clearer outline in the public administration or a guaranteed presence in all the administrations.

The last dimension faces a key- issue of the Italian public sector communication evolution and it deals with the relationship between institutional and political communication. The “balkanization of roles and pluralization of functions” (Lovari, 2016, p. 68) favored by the digital wave lead to an increasingly less clear distinction between political and institutional communication (Solito, 2018). The two areas must not be read in a dyadic and contrasting key, but as complementing each other and at times converging, while accepting the unyielding elements of separation. The design of an operative and effective coordination of political and

institutional aims and needs challenges public administration culture, in order to combine the mutual autonomy and the strategic convergence.

4. Conclusions

The topics here reviewed principally at a theoretical and historical-evolutionary level are today at the centre of the debate in Italy. The aspects that have important implications on public sector communication structures and which can offer cues for reflection in future researches and studies could be summarised as following:

- An urgent need for a regulation updating, providing for specific solutions for the new communicative and relational digital environment;
- An identification of more flexible professional profiles in the communication staff, providing a long-life learning approach and boosting the collaboration between public administration and educational institutions;
- The establishment of coordination structures – once called “control rooms” – capable of connecting the work carried out by the different actors in the communication-relational system and identifying the tools for strategically planning the communication activities;
- The valorization of the opportunities offered by the digital technologies to build relations that set value by the citizens and other stakeholders – i.e. administrations, enterprises, no-profit associations, schools and universities, media, etc. – but also listening within the public administration itself;
- A progressively simplification of the language used, both in terms of clarity, accessibility and effective transparency of the contents and suitability for the different channels, in order to foster an effectively open government attitude and culture.

These aspects can offer cues for reflection in future research and studies, not only based on the Italian context, but also for comparative research projects among different countries.

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Declaration of Interest Statement

The authors declare that they have no conflict of interests.

Tell me about the data. Istat communication on social media

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Abstract

How to communicate data in the digital network in an integrated way? How can you use social network to communicate statistics and exploit their potential? How to combine data with emotions to focus public opinion on the facts?

The paper presented here, starting from these questions, intends to provide, first of all, an overview of what can be called the Social Web Revolution. Social networks are territories frequented by real inhabitants; ecosystems to be valued, respected and preserved. At the same time, are an extraordinary tool for disseminating information and an effective relational venue.

They are accessible, versatile, interoperable with each other and have a high potential to reach different audiences (users of expert and non-expert data, media, ambassadors, influencers, stakeholders, policies and opinion makers). Secondly, the reflection proceeds through a focus on the Public Sector and social networks as a public service. If it is true that communication is relationship and must inspire trust, social network are useful tools, allowing the creation of a conversational system based on transparency, innovation and participation. The Social Revolution implies, for institutional communicators, cultural commitment aimed at an innovative effort to find registers, measures, cuts of intervention that ensure communication correct and onlife.

In the web information network, statistical data enter a wide "life cycle" in which they interact with different information and are subject to multiple interpretations and even possible distortions. Above all, we realize that for Istat, a type of social communication push and pull is not enough, but a networking communication needs to be defined: a highly interactive, dialogic and relational approach.

Undoubtedly, trust and reliability represent today the two key concepts on which to build a healthy and reputational public social communication.

Keywords: social media, official statistics, digital communication, fake news, users, public sector communicatio

Introduction

Social networks represent the new social morphology of our societies, and the spread of networking logic substantially changes activities, practices and results in the processes of creation, production and communication. In the *onlife reality* (Floridi, 2017, p. 47), digital and social network are not only simple communication tools, but also drivers of change and growth in the professional, personal, and economic spheres. We are immersed in a *continuum* where our real life is inextricably mixed with our virtual one, in a mirror game that is difficult to decipher.

Social networks are territories frequented by real inhabitants; ecosystems to be valued, respected, and preserved.

At the same time, social networks are an extraordinary tool for disseminating information and an effective relational venue. The Report 2020 Censis (Centre for Social Investment Studies) confirms that social networks are considered indispensable by 4.9% of Italians, useful by 48.6%, useless by 22.9% and harmful by 23.7%. According to the report, social networks are mainly used to stay in touch with people and communicate more quickly and effectively (40.6%) because they keep people company and provide a lot of information.



Figure 1: Use of social networks (by We Are Social)

As seen in Fig. 1, in the month preceding the analysis of the report “We are social”, 85.4% of users got involved proactively on social platforms: in essence, it means that we activate accounts on the apps to use them. This propensity will lead, over time, to more awareness on the use of media and more literacy of users. For brands and companies, it will mean offering higher levels of content and service offerings to satisfy social audiences.

1. Background

In recent years, the public administration has made an increasing effort to be on social media and reduce its self-referentiality. But being there is not enough. It is no longer necessary just to be present. It is important to understand how to be there and how to design one’s own communication strategy. In fact, as a recently published essay tells us, it must also approach marketing areas by organising “processes aimed at creating and communicating values to customers” (Bonanomi, D’Errico, 2021, p.14).

The social networks themselves present great opportunities for fostering digital communication flows; as O Reilly said, we are in the presence of an evolutionary approach to the network that favours collaboration, content sharing, participation, and interaction on the web. Public communication has entered “a new wave of the eGovernment era” (Mergel 2013). It is clear that this new social system affects all areas of daily life, changing people’s habits, and this inevitably has repercussions in the public sphere as well.

Social networks are increasingly becoming a true public service. Consider, for example, that according to a survey conducted by PaSocial and the National Observatory on Digital Communication, 8 out of 10 Italians consider the use of social networks and chats to communicate with public bodies useful. 68% are in favour of providing information and institutional communications via social network (fig. 2).

In general, due to the pandemic and the health emergency, the context of public communication has undergone a profound change of scenario. As it happened for Italian National Institute of Statistics.

In the web of information, statistical data enters a wide ‘life cycle’ in which it interacts with different information and is subject to multiple interpretations and possible distortions.

Moreover, in the face of the proliferation of “unofficial” statistics and surveys that are widely circulated in the media, but whose methodologies and production processes are not always clarified, the issue of “trust” in the Institute and in the authoritativeness of the data released becomes a particularly relevant one with multiple levels of interpretation.

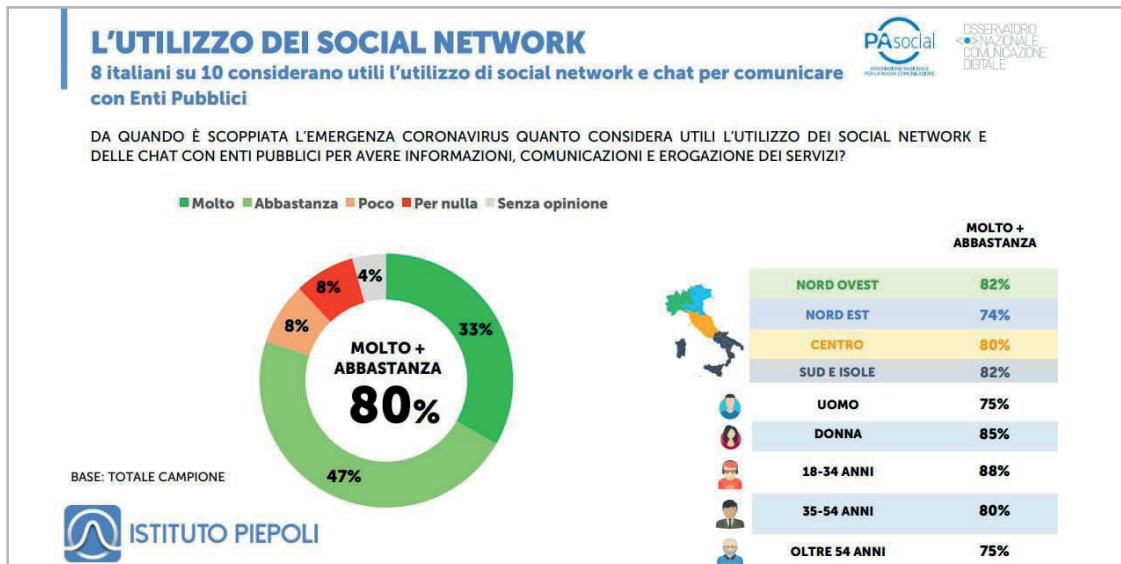


Figure 2: Use of social networks for public administration (by Osservatorio nazionale sulla comunicazione digitale)

Above all, we realise that for Istat, a social push and pull type of communication is not enough, but a **networking communication** needs to be defined: a highly interactive, dialogic, and relational approach.

Undoubtedly, trust and reliability are today the two key concepts on which to build healthy and reputational public communication across the social web.

The Edelman Trust Barometer 2021 reveals, for example, that people do not know where or whom to turn to for reliable information. The majority of respondents believes that government leaders (57%), business leaders (56%) and journalists (59%) are deliberately trying to mislead people by providing them with fake news. The global infodemic has driven trust to the lowest levels with social media (35%) and owned media (41%) considered the least trustworthy; traditional media (53%) saw the biggest drop in trust, losing eight points.

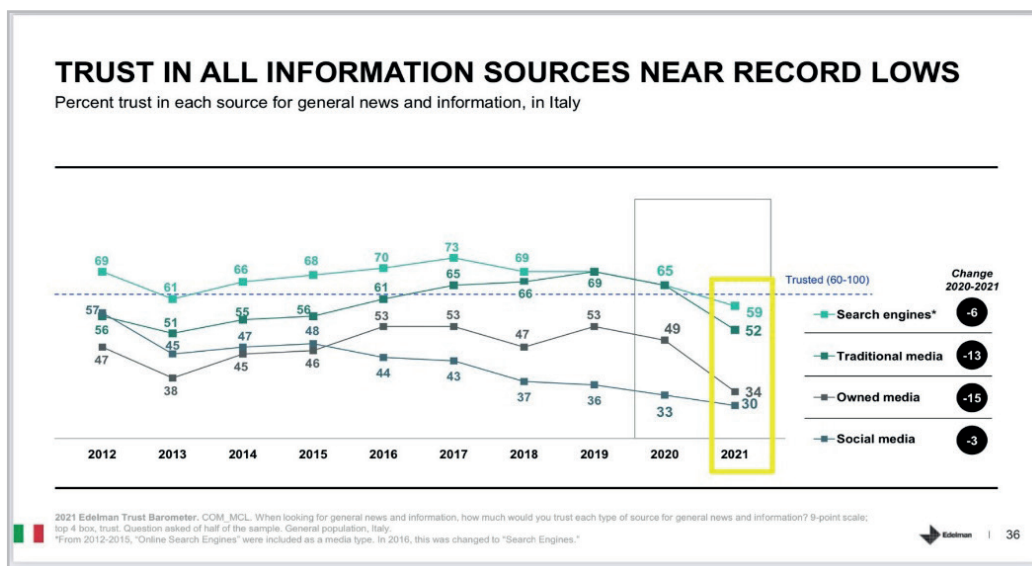


Figure 3 Trust in All information sources near record lows (by Edelman Trust Barometer)

Although, in general, the relationship between trust and communication is still in good health. This is what emerges from the research "Communication and Trust, an indissoluble

pair”, carried out by DataMediaHub and presented during the first digital edition of InspiringPR, the Public Relations Festival promoted by Public Relations Federation (FERPI).

The word “trust”, in particular, has been mentioned online over the last 12 months more than 2.2 million times, by more than 233 thousand people, with a volume of conversations that has generated a potential reach (“opportunity to be seen”) of 7.3 billion. The words ‘responsibility’, ‘possible’, ‘important’, ‘public’, ‘information’, ‘market’, ‘value’ and ‘customers’ are some of the terms most associated with online conversations relating to the term ‘trust’. Similar data can be found for the word “communication”: 1.7 million mentions, more than 22 million people involved and a conversation volume that generated a potential reach of 4.9 billion. The terms associated with this research include “information”, “collaboration”, “attention”, “responsible” and “important”.

The data confirms the relevance of these themes in the ecosystem of public communication in the broadest sense, but even more so in the areas of communication and statistical dissemination on social networks. In the places of the social web, users search, find, and use information. The correct, attentive, and interactive presence of the public sector must be guaranteed.

2. Materials and Methods

Istat social communication strategy focuses on the users.

It is the citizen who comes at the centre, he is the heart and the ultimate goal of Istat communication commitment. The main task of the National Institute of Statistics is to serve the community through the production and communication of statistical information.

A real people-centric communication.

In times of fake news and post-truth, it seems urgent and necessary to adopt a pro-active and quality attitude that allows us to be on the social web, producing information and, at the same time, radically changing the way in which the content of the statistical product is offered, no longer static but mobile, thanks to the public (table 1) who navigate among the information, dialogue, comment, criticize and compare.

Istat has been present on social network since 2010, aiming at these objectives:

- 1) Increase Awareness/ Awareness;
- 2) Manage Reputation;
- 3) To widen the audience of data users and to favour their correct use;
- 4) To convey statistical information using different languages and diversified contents.

Table 1: Type of users on social network Istat

Twitter	StakeHolders; Institutions, Partners; Communicators, Disinformers; Trade Associations; Multipliers; Businesses and Services
Instagram	students; digital natives; teachers; multipliers; disseminators
LinkedIn	Heavy users, Expert users, Scientific community, Universities and research, Data analysts, Data scientists Industry community

Based on these reflections, it is possible to define three keywords for statistical communication on social networks:

- **Humanisation:** make the brand human and ensure greater social awareness; the brand must increasingly be a person and this allows authenticity.
- **Listening:** The Covid-19 crisis has brought the issue of misinformation even more to the forefront. Society is facing an uncertain future and this uncertainty has created numerous hotbeds of fake news, with false stories whose resonance can have a major impact especially on trust in official statistics. Conversely, trust is built by listening.

- **Conversation:** Maintain conversations with audiences to build relationships, define meeting spaces and increase engagement. Information, engagement and social issues drive engagement and loyalty.

The awareness of these three key words enabled the definition of three extremely engaging and relational statistical communication formats:

- Social Media Advocacy actions
- Visual narratives
- Highly engaging informative content against fake news

3. Results and Discussion

3.1. Project Amplify: Social Media Advocacy

“Brand Ambassadors are individuals who, free of charge or for a fee of various kinds and with the explicit support of the brand, support it in its positioning and relationship with the public”. (Centenaro L., Zanella S., 2019)

From 18 January to 18 February 2021 the Italian National Institute of Statistics started an experimental project of Social Media Advocacy at two levels: *internal ambassadors* (Istat employees) and *external ambassadors* (external professionals) who have been invited to share Istat contents prepared by our social media editorial staff.

This is an absolute new project for Istat.

The basic idea of a *Social Media Advocacy* is to create a community, an harmonious group of people who are interested in sharing and recommending a company (or a public administration) and its actions. Because if it's true that the external perception of an organization can also be different from reality, it is equally true that especially people who work in that organization express its truest and most credible essence.

“Through the work of the Ambassadors and the amplification of the contents, we have tried to make statistics more POP, in the sense of popular, and therefore close to the daily choices that each of us makes”.

First of all, it's defined a new Social Media Policy also regulating the role of our Ambassadors.

It's decided to choose 11 employees among those most trustworthy and at the same time active on one or more specific social networks. On the other side, were involved 11 external professionals engaged in different fields: from journalism to economy, from demographics to marketing.

Once their availability was obtained, a dedicated web page was created to announce the start of the project and the involvement of the chosen Ambassadors. This is both in order to affix a sort of stamp of reliability to the Istat content that they would have shared on their social channels and to make the Ambassadors known to our audiences through the publishing of individual and short personal bio of them.

Features that made us choose which among our colleagues were the right ones to be 'ambassadors of the Istat brand' have been: proven expertise in certain issues; active presence on their personal digital media accounts; corporate spirit; ability of involving even non-experts and thus driving the entire Social Media Advocacy project.

During the field test, we allowed the ambassadors to support, choose and share contents specifically created and prepared for them by the social editorial staff and this was made possible through the Hootsuite Amplify platform.

To start this executive phase of the project it was decided to proceed with the amplification of the contents of a specific area of our website: 'Dati alla mano' (fig. 5). This section is dedicated to all those who want to familiarize themselves with official statistics and Istat data, but are not experts on the topic. Here, therefore, statistical information is told through simple languages and within everyone's reach.



Figure 5: Dati alla mano

Through this project, Istat has obtained both the passage from simple engagement to social engagement and the dissemination of a real corporate culture.

It is essential to track the right indicators and KPIs to understand if one is going in the right direction and how the adoption rate is progressing (table 2).

Table 2: Business KPIs (by Hootsuite)

TARGETS	INDICATORS
ADOPTION	ADOPTION RATE
ENGAGEMENT	READING RATE
	SHARING RATE
REALIZED CONTENT	UPLOADED POSTS

Some results:

- ❖ 133 posts published by the 22 Ambassadors (within one month).
- ❖ the adoption was 83%.
- ❖ The potential range of 533k
- ❖ 274 read posts
- ❖ 451 posts shared by users.
- ❖ The most popular content: videos.

Let's observe the relation between the potential reach of the Ambassadors and the reference social networks (fig. 6). At the first place we find Twitter with 332K.

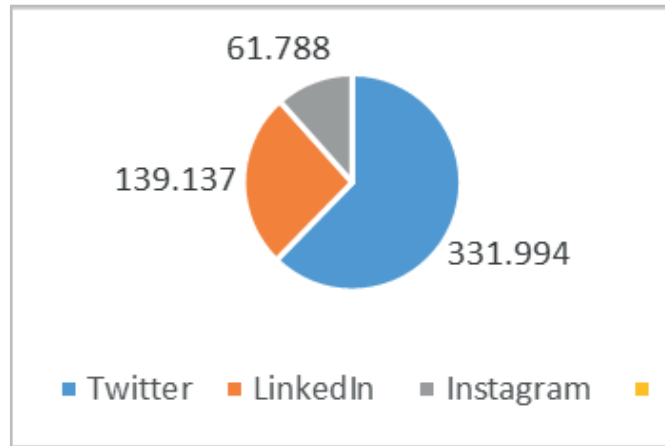


Figure 6: Potential reach of the ambassadors in relation to various social channels

If we examine the list of the top 3 most followed Ambassadors we see that the first two positions are occupied by two external professionals, but at the third place we find an Istat employee (fig. 7).

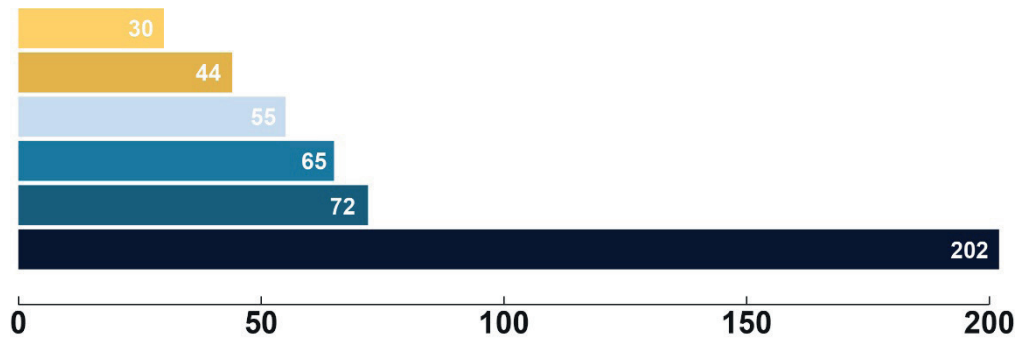


Figure 7: Top 3 brand Ambassador Istat

Social Media Advocacy project: content is the core. The content strategy must be aligned with the targets.

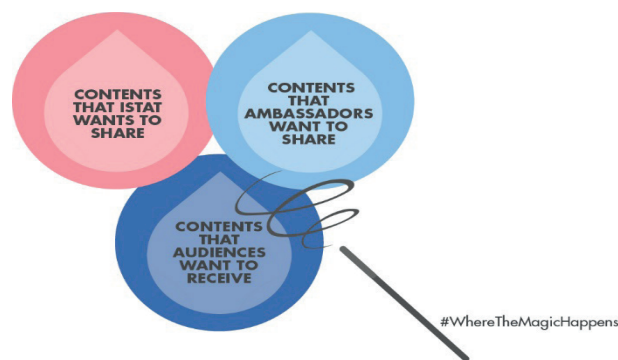


Figure 8: Content balance

As it is evident, the number of shares by ambassadors is not closely linked to the number of followers on social networks. It's necessary to highlight two key words that in my opinion are increasingly central to build a Social Media Advocacy strategy for statistics:

- **Person:** proximity will be increasingly central to the dynamics of social networks that move toward niches and narrow communities.

- **Trust:** this is the secret of Social Media Advocacy. Through the involvement of employees, users are more likely to trust that particular company/brand and - consequently - to make conversions and thus increase awareness.

A 'People relations' project guided by 'public engagement', where the person is always at the center and trust is an essential component. Trust will be imperative, so statistical communication on social networks must be honest, conscientious and appropriately authentic.

3.2. Visual Narratives

Istat social communication involves more and more employees. Istat brand has to achieve a balance between public and private social engagement. Through social networks Istat has to be more and more a point of reference to increase trust in official statistics and its promotion. Even more, transmitting these values through the employees, so our internal ambassadors represent the way to guarantee authenticity to what Istat communicates. Moreover, we got the involvement of the external ambassadors and micro-social influencers able to bring the complexity of data closer to non-expert audiences.

Videos are becoming more and more important to narrate the brand identity and for Istat they represent very engaging products that are appreciated by our followers. Just as effective are the products where employees and managers represent real amplifiers of Istat information (fig. 9).



Figure 9: Ambassador and video

For example, the followers of the Istat channel on LinkedIn have a great appreciation for content that offers in-depth statistics or provides broader information on topics related to business, economy, statistical surveys and the territory. In addition, the videos of Istat's management and researchers, which tell in a few minutes some important data of the published survey, arouse an interesting involvement. Again, the video contents are the most commented, as a real interest in the audiovisual product.

This highlights, firstly, the importance and centrality of video as a narrative and informative tool central to the social strategy.

Secondly, the presence of an "Istat face" confirms the choice of using LinkedIn from the perspective of employee advocacy, as it is a matter of disseminating content that "humanises the brand". For the first time this year, videos were also posted on the institutional Instagram channel in the IGTV version, which allows video products to be published on the feed for longer than one minute. There were 34 in total. In fig. 10, we show the video that was most successful: "GDP told in two minutes"



Figure 10: “GDP told in two minutes”

3.3. Highly Engaging informative Content Against Fake News

The increasing centrality of listening in social media marketing strategies and PA best practices is also confirmed by Philip Kotler (2017), one of the founding fathers of modern marketing, who defines Social Listening: “the process of proactively keeping up to date with what is being said on the internet about a brand, particularly in social media and online communities”.

Listening: to combat misinformation, one must listen to the network. It is essential to capture the sentiment of the public and respond to fake news. To do this, suitable content is linked to visual narratives (such as social/infographic cards) that can not only recount some important data for the Country with simplicity and transparency, but also narrate in a simple and effective way contents that does not have an immediate impact (e.g. how the data collection process takes place)”.

In April 2020, when Istat released the first data on deaths related to the health emergency, many followers found it difficult to understand and correctly interpret the data released. Often the same press release gave rise to multiple interpretations on the web, which only added to the confusion of information and increased the ambiguity of the data.

We must bear in mind that 99% of conversations about a brand, like Istat, take place outside the site, outside the mentions it may receive as an account. It is from social media that everything starts and people are immersed in a circuit made up of infinite touch points (see fig. 11 for an example).



Figure 11: Post on Twitter about campaign IstatperilPaese



Figure 12: Most popular tweet of the #IstatperilPaese campaign posted on the @istat_it channel

It is from social media that everything starts and people are immersed in a circuit made up of infinite touch points.

It was through listening to the web and monitoring social conversations that the need emerged for an informative graphic tool that would make it easier and more effective to understand the mechanism for collecting data on deaths and processing the results disseminated. Thus, it was developed an infographic on the sources of information on deaths and the criteria for reading those data.

The infographic was posted on Twitter on 17 April 2020. Between Friday 17 and Sunday 19 April, the tweet containing the infographic received forty-seven thousand two hundred eleven views and three thousand five hundred total interactions, 251 two hundred fifty-one clicks on the link to the page on the Istat website, 88 likes, 59 retweets and 12 comments. At the moment the post is the most popular tweet of the entire #IstatperilPaese campaign (fig. 12).

This result confirms the need to think more and more about datatelling contents and, in general, about the narration of statistics that are able to communicate in an effective, immediate and intuitive way “what’s in the Istat kitchen”; in this sense, infographics and visual contents (images, informative videos, animations, clips, tutorials) are the most appreciated products on the web and they are the ones that bring the brand closer to its multiple and diversified publics, even more in a crisis situation.

A further critical, complicated and undoubtedly highly relevant aspect of the #IstatperilPaese campaign is that linked to misinformation and the fight against fake news.

In particular, the data on the mortality rate of the resident population have generated a very substantial traffic of posts, not always characterized by truthful news, to the point of resulting in episodes of real flame and misinformation (fig. 13).



Figure 13: A typical table of statistical fake news dissemination



Figure 14 Post Twitter about “IstatperilPaese” campaign

In order to counter the distorted use of data but also to play an institutional role, Istat created a specific ‘Covid Social Media Strategy’ choosing to include in the posts that certified the presence of incorrect communication the words “no #Fake and only #accountverified” with the caption: “Help us to inform the Country correctly”.

In this phase, Istat institutional accounts responded directly to all the subjects on the web who spread unverified news (often attributing Istat as the source) through a punctual, clear, defined and articulated communication followed by listening to the network (fig. 15).

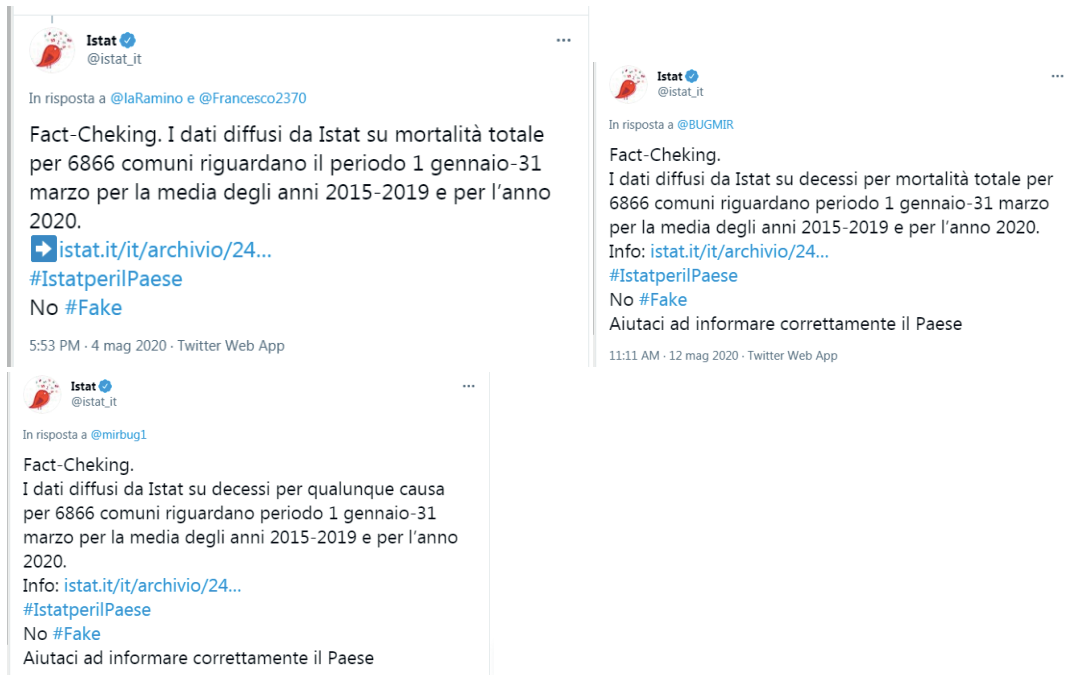


Figure 15: Istat tweet in social conversation

The strategy, undoubtedly unconventional, gave positive results by increasing brand awareness and e-reputation of Istat and raising the level of involvement and awareness of users. In confirmation of what has been said, there have been numerous positive feedbacks and appreciations towards the work done, following the presence of the institute in the conversations (fig. 16).



Figure 16: Examples of requests for clarifications answered by the @istat en account and thank-you posts from users

4. Conclusion

The value of statistical communication will increasingly be in the relationship, which is divided into three distinct moments:

- 1) **Listening**
- 2) **Response**
- 3) **Information**

Therefore, listening to the network, entering into conversations and dialoguing with users in a pervasive, timely and attentive manner will be the actions to be taken to defend the role of producer of official statistics.

The future of social media and the statistic communication will be user-generated and community-driven.

Declaration of Interest Statement

The author declare that he have no conflict of interests.

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Public Communicator: Connection in Institutions and Bridge for Citizens

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Abstract

Awareness of internal communication for effective institutional communication. The goal is to make the Public Administration (PA) aware of the needs inherent in Institutional Communication and the figures responsible for this purpose. Communication, as a characteristic activity of the PA and an ordinary way of interacting with the citizen, takes on relevance since the 1990s. The Net with its evolutions, from a minimally interactive environment (web) to a social tool (maximum interactivity) has further accentuated, if not created, these activities. The legislation on communication and information, although conceived in an intelligent way, has not been able to completely cover this technological step. The recent legislation to have total accessibility and transparency has not involved, as has happened since the 1990s, the only function, the public communicator, who is entrusted with this task with the instrumentation, organizational communication, at its disposal

Keywords: Institutional Communication, Citizens, Institutions, "Citizen Relationship Communicator" (CRC), Organizational Communication

Introduction

Institutions and citizens are very distant. A statement that may arouse surprise considering that my research activity is far from an excessive use of simplifying words, also used in demagogic contexts. The thesis, to be demonstrated, is that, despite the evolutionary normative production, the technological progress that has provided powerful communication tools, a cultural growth that has affected all the expressions of society; the distance exists. The institution should univocally apply the norm in an opportune way, as the legislator thinks, but the institution is not one but more entities in its multiple realities. In the same central State, each one, in the legislation of specific interest of my research, public communication, designs an organization that he deems appropriate, a coherent application with consequent, in my opinion, different results.

1. Context analysis

The same institution or public administration (PA) has undergone an evolutionary process trying to keep up with a society to which adjectives have been added that had to try to explain the complexity of phenomena that cannot always be interpreted. Our unitary PA was born, in fact, at the turn of the years of the Unification of Italy, trying to combine the needs of the central State and local realities (Municipalities and Provinces). After about a hundred years, another intermediate reality is added (the Regions). All this continuous flourishing of institutions, not only the latter but also others linked to decentralization processes, produces legislation for institutions that takes the recurring and significant name of PA Reform, to adapt to changing society. The regulatory turning point that affects my research takes place at the turn of the year two thousand and continues to the present day: in 1990 with Law 142 of 1990, which overflows from its narrow scope delimited by the title "Organization of Local Authorities" and introduces, for the citizen and for the first time, the right to be informed and therefore to know; in the same year, with Law 241 of 1990, with which the citizen has the right of access and therefore of

participation; in 1993 with the Legislative Decree 29 the citizen himself has the duty to choose and decide. After 1990, another year, 2009, is prolific in trying to bring citizens closer to the institution (Laws 15 and 150) with the codification of the notion of transparency understood as total accessibility. In 2013 (Legislative Decree 33) this attempted approach was reorganized, introducing the right of access and again in 2016 (Legislative Decree 97) the latter was defined as civic access and the right of generalized access was introduced. Another evolutionary step of the right to information, making it stand out as an expression of the manifestation of freedom of information, a right sanctioned at the constitutional level by article 21. In particular, it is interesting for the research that the right to information takes the concrete form of the right to be adequately informed and the right to request information. The general rule is transparency (full disclosure) while confidentiality and secrecy are the exceptions. The exclusion of the right to information or its limitation is therefore admissible only in specific cases, identified by law or regulation. Furthermore, for the research activity it is essential to remember Law 150 of 2000 (Discipline of information and communication activities of public administrations) followed by application rules and finally, not only temporal, the establishment in the National Contract of the PA of new profiles for communication and information activities (CCNL Local Functions 2018) Technological progress has enormously invested the world of communication, which is the subject of research, with different tools, used by man, which over time have influenced his way of thinking, acting and also, therefore, directly and indirectly the companies in where he lives. And the PAs are, in my opinion, a vital and fundamental part of society and must therefore be ready to fully respond to these continuing challenges.

2. Theme analyzed

Having introduced, albeit briefly, the path of the PA Reform and noted the constant evolution of the communication ecosystem, I affirm that the encounter between these worlds has made the discipline of public communication manifest by investing it with demanding tasks. Which? Enhance skills and means, triggering civic culture training tools that lead to the result of aware citizens; Acquire credibility, rethink one's positioning, only after having examined the reference context, and consequently open up to contamination from the outside world (Faccioli 2000). Given the challenges, we try to define a public communication that has within itself areas of reference defined as political, institutional and social communication (Rovineti 2006), a distinction still fairly accepted but difficult to define. As a whole, the discipline of public communication was born immediately after the first PA Reform regulations, 1991, with the aim of helping to understand operational practices, satisfy needs and rights, favor the participation and democratic control of the governed over the rulers. and to do this, it packages the information and news that public institutions provide to citizens, businesses, non-profit associations and other institutions (Caligiuri 2003), activities which today, considered the current communication tools, are much more difficult and complex. I leave aside political and social communication, a difficult objective precisely due to the close interconnection between the different contexts and consequent communication product, and I try to imagine a profitable institutional communication on which to trigger my research. Undoubtedly, Law 150 of 2000 reductive identified the structure (Urp or similar) assigned to the communication activity, in my opinion, of the time; adequate professional figures (Presidential Decree 422/2001) who, however, took almost twenty years to be recognized even as a professional figure in national public sector contracts. On the other hand, the latest regulations cited (Legislative Decree 33/2013 and Legislative Decree 97/2016) focused on the recognition of the full freedom of information of citizens and on a new role of transparency:

Transparency arises, then, not only as a form of prevention of corruption but as an ordinary and primary tool for bringing citizens closer to the public administration, increasingly destined to take on the contours of a 'glass house', in the context a broader vision of the fundamental rights enshrined in Article 2 of the Constitution (inviolable rights), which cannot ignore participation in public authorities. In essence, transparency is configured, at the same

time, as a means to implement an administrative action that is more effective and compliant with the constitutional canons and as an objective to aim for, directly linked to the democratic value of the administrative function. (Consiglio di Stato, 2016)

In my opinion, they open up the possibility of a coherent use of the public communicator figure, freeing him from mere obligations, from the URP enclosure and allowing him to be a communication professional. I would also point out that the eruption of the phenomenon of disintermediation with consequent indistinguishability between different communication environments produces organizational changes, evolutionary adaptation of skills and remodeling of professionalism for those delegated to intermediation roles between sources and receiver. This phenomenon has affected and continues to affect the communication functions in the PA. The same phenomenon begins to undermine the rigidity of the tasks and of the tripartite figures arising from Law 150 of 2000: “the relationship with the media for the press offices; relations with the public for the URP (Public Relations Offices); while the spokesperson is responsible for political communication, in a relationship of a fiduciary nature with the directors.” (Solito - Materassi 2017). Over the years, PA operators, not only those responsible for the communication function, have awaited the application of the communication ecosystem, as a challenge, and have tried to carve out a role in the innovation process with challenges of public communication on three aspects: “construction of the identity of work in the public; formation of an organizational culture; creation of a dialogue between administrations and citizens.” (Faccioli 2016) Aspects, in my opinion, still far from being resolved. On the other hand, the legislation has not been able to do anything to the request, which arises from every reality, for communication and information activities, thus producing a communication that “overflows”, becomes “ubiquitous” but also becomes a source of difficulties, inconsistencies, discontinuity, caused precisely by the escape from the narrow confines of the structures and offices responsible for its management (Solito 2014). Requests supported by communication contexts (digital media, primarily social media) that build relational communication with a comparison of opinions, but without constant reference points between transparency, service, and image. Unfortunately, this diffusion of communication that elevates it to a higher rank in the instrumentation of government does not create a service-oriented culture, nor does it rebuild the credibility of the institutions. Everything risks becoming an image, not a relationship with the citizen and leads to putting aside transparency and the fact that public communication is superseded by political communication, corresponding to an image, prevailing over the “simple” provision of services (Faccioli 2016). Surely the relationship between communication and organization in general, not referring only to the public context, has seen communication adapt and change by virtue of the different organizational forms that have occurred over time. At the end of the twentieth century, after organization, information technology, and with the increase in the internal and external complexity of companies / entities, a new concept of communication appears. This new communication concept makes it possible to manage greater organizational complexity. The evolution of organizations has meant that communication has become a backbone and a fundamental requirement of modern organizations. Modern companies have abandoned models based on the principles of classical theory to take models based on cooperation as a reference point and as an organizational model to inspire them. The new need for “agility” has generated operational changes and has made companies assume new forms: “business networks, network organization, development of peripheral units, outsourcing of activities, simplification of hierarchies, overcoming the isolation of the task, widespread recognition of areas of autonomy associated with lighter forms of control” (Bonti 2004). With the ever more widespread diffusion of this organizational approach, it is understood how they cannot function effectively and efficiently without an impressive use of tools and activities of communication. Following all these changes, it is clear why the need for a new paradigm of organizational communication has arisen. Communication has become an intrinsic and necessary component of modern and contemporary organizational forms that are based on relationships and different forms of relationship. Communication supports the development and evolution of the organization actions themselves,

satisfying the needs of self-adaptability, credibility, and personalization. One of the first consequences that derives from the change in organizational forms and communication lies in the progressive thinning of the boundary between internal and external communication. The border has become increasingly blurred as the existence of organizational realities characterized by an increasingly uncertain line of separation between inside and outside has become established. The targets to be considered internal have increased in number and importance and external communications are also aimed at internal audiences as it is impossible to separate the messages addressed to the outside from those addressed to the inside and it is much more profitable and useful to integrate them. Furthermore, the distinction between internal and external communication is no longer considered appropriate as the communication must be implemented by virtue of the reference objectives to be achieved, rather than the public. Internal and external communication converge and refer to the company's values and culture. Internal communication also assumes the value of a support tool for the learning process of workers. The so-called training communication concerns "the actual training activity on interpersonal and mediated communication issues carried out both in specialized training contexts and in the workplace. In this second case it is carried out by bosses and managers and has as its object communication contents of various kinds" (Invernizzi 2000). By virtue of all these changes and all these new aspects that internal communication presents, it is possible to define a new concept of communication, defined as organizational communication that encompasses all communication activities aimed at internal and external public people and considered and managed. This new terminology refers to the fact that communication has as its fundamental activity that of "supporting all the strategies, policies and objectives of the organization as a whole" (Invernizzi 2000) and the traditional concept of communication consisting of "Institutional communication, economic - corporate, internal and external marketing" (Bonti 2004). In the sense of the new paradigm, organizational communication is defined as "the set of strategic and operational processes; of creation, exchange and sharing of information and value messages within the various networks of relationships that constitute the essence of organization and its place in the environment. Organizational communication involves internal members, internal - external collaborators and all external subjects interested in or involved in the life of the organization, including its actual or potential customers" (Invernizzi 2000).

3. Conclusions

The application of the operational proposals of organizational communication can be, in my opinion, the right response to the call of the Council of State on the need to bring citizens closer to the public administration, which also involves awareness of the needs of the figures delegated for this purpose, Communicator of Relations with Citizens, (Citizen Relationship Communicator).

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SECTION: 3

POLITICS, ETHICS AND COMMUNICATION

Crisis Communication with Corporate Political Strategy: an Empirical Study of a Real Estate Firm in Vietnam

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Abstract

Corporate political strategy is used to influence the government on cooperating with the firm in making decisions or raise their voice over an issue and they can change behaviors and attitudes of target audience. However, there is limited evidence about how corporate political strategy can help a firm solve its crisis. Using interdisciplinary discourse analysis, this qualitative research analyzed one case of a real estate firm, Hoang Anh Gia Lai Group in Vietnam, to identify the effectiveness of political approach and the reasons for using this strategy in crisis communication. Findings show that corporate political strategy is considered when government as a stakeholder in crisis can mediate messages disseminated to public via state-owned media to raise public awareness or mitigate chaos. In the case, the government agrees to raise their voice with different reasons but the common one is this voice can bring certain benefits to the government itself.

Keywords: Corporate Political Strategy, Crisis Communication, Political Influence, Political Approach, Stakeholder, Message Mediation, Public Awareness, Governmental Influence

Introduction

Corporate political strategy is about actively convincing relevant political decision makers to take actions that specifically benefit the firm (Godwin and Seldon, 2002). Crisis communication with this strategy is considered when government as a stakeholder in the crisis according to agent theory and stakeholder theory (Ihlen & Berntzen, 2007). The strategy has been used to deal with financial issues, banking issues, immigrant issues and even housing issues and affirmed the role of government in calming down the public when the crisis becomes massive (Stearns, 1988). With a bigger crisis, a firm may need to set up a network of corporate political strategies or even hunt for political influence to change the situation or take some coercive actions from the government (Collier, 2008). The firm, as a public relation practitioner, together with the government who agrees to join the strategy will communicate with media to convey specific messages which are mutually defined to get the attention of target audience of crisis communication campaign (González, 2018; Farnel, 1994).

Public relation practitioners can regard the government as the third party to give feedback or comments with the firm's advantage to change public attitudes, so the government can become an agency who can work with the firm to deal with the crisis (Guth, 1995). They are also one of external stakeholders that have to perceive the crisis through information provided by the firm and when the firm is a source of information (Coombs, 2010), it can make this source more credential with the government's voice. Patrick Lagadec (1988) argues that if severity of crisis is high, a firm needs immediate actions of emergency to let the audience know via available sources of media and the government can help with this as mass media report their voice. The firm activity is associated with the governmental representation, as a third party activity, showing interactions between businesses and political bodies (Bouwen, 2001). One of key communication strategies is that crisis managers have to build good media relations including journalists, and government (Farnel 1993).

Real estate firms emphasize the need of corporate political strategy as a response to a crisis. That government intervenes the real estate activities in policy making, tax decisions, legislative issues and public opinions is a good contribution to raise social awareness of certain issues in time of crisis. The practitioners or implementors of solutions can get the government involved as a propagandist in the communication process and to do this, they persuade the government to agree with their views of crisis management. To gain their voice, the firm has to get the government to stand on its side and together with it, convey a mediated message to the public via mass media or social media that the government can make influence on or control of.

1. Research Aim

There is a lack of research in examining the role of government as a stakeholder who works together with a firm to solve a corporate crisis and the firm not only takes the corporate political strategy but also makes it an ongoing strategy. In terms of response strategy in a crisis communication in real estate sector, this research aims to answer the following three questions:

- RQ1: At what extent is a corporate political strategy able to help communicate a crisis in housing?
- RQ2: Why does a real estate firm have to build relationship with local government?
- RQ3: What tactics could be done to execute a corporate political strategy in crisis communication?

2. Literature Review

2.1. Rational Choice Theory

Money is one of the means used to motivate people and make profit and becomes a basic element to construct models of human behavior (Scott, 2000). Humans tend to behave rationally in actions when they calculate the costs and benefits of these actions prior to making a final decision on whether to do them or not (Weber, 1920). This is obvious to mathematically rational actions in political science and social change and applied to explain the result of individual actions and interactions (Downs, 1957; Hechter, 1987; Elster, 1989: 13). Rational choice theorists argue that information, approval and prestige are necessary resources in addition to money when certain goods or services are produced, distributed and consumed. Humans look for these resources by making choices to achieve their goals: do actions that reward them and avoid actions that punish them. Rewards over costs as investing in costs in return for rewards are profitably balanced in the parallels with economic actions and this motivates people. This can be illustrated that when the government helps a firm according to its political action and the firm receives an approval from the government, so in return it needs something else to exchange with the government. Homans (1961: 61) argues that this exchange will not be longer continued in case there is no profit made by between two sides.

2.2. Stakeholder Theory

Academic and professional sources state that a firm deals with both internal stakeholders and external stakeholders during its business life cycle via multiple strategies (Donaldson & Preston, 1995). Among stakeholders, there are primary stakeholder groups while others are secondary, and throughout business events, a firm accomplishes responsibilities toward them (Jawahar & Mclaughlin, 2001). In some events, it is likely to focus on pursuing some economic responsibilities to primary stakeholders, not secondary stakeholders, or even using the stakeholder's actions to influence other stakeholders' behaviors. The stakeholder theory is seen as descriptive when "managers behave as if stakeholders mattered because of the intrinsic justice of their (stakeholders') claims on the firm" (Donaldson & Preston, 1995, Jones, 1994: 100). The firm gains a constellation or satellite of stakeholders who can show their cooperative interests that bring intrinsic benefits to each other. The stakeholder is also seen as instrumental because there is a connection between stakeholder management and a firm's goal achievement. One of the performance terms is stability that the firm expects to practice and achieve, so using

a stakeholder's voice can bring weight to a change in another stakeholder's behavior once they are in the same constellation (Donaldson & Preston, 1995). A firm invests in stakeholder management as they are interested in its success or failure and may provide support in crisis (Ulmer, 2001). They can help with political support to mitigate the crisis by supplying just-in-time information or raising their positive voice (Ulmer & Sellnow, 1995).

2.3. Corporate Political Strategy

Marthur et al (2013) state in their research that well-performed firms usually spend an amount of budget building relationships with several public relation practitioners from inside to outside. In time of crisis, internal practitioners are crisis managers and external practitioners can be trading associations or the firm's partners who have good relationship with political sources. The pursuit of political connection can provide the firm with opportunities to gain favorable conditions in winning a public contract and optimize competitive edge in the market and in return, the politicians can enhance their political power, image, and reputation. The government's action can be convincing or threatening but it is an impetus for a firm to pursue a corporate political strategy in a long-run and get benefits from it (Boddewyn and Brewer, 1994, Godwin and Seldon, 2002). This argument also supports the rational choice theory when a firm chooses the strategy to benefit itself and so does the government. The firm pursues a corporate political strategy not only for the time of crisis but also for other periods of business operations and the strategy is preparation for uncertainty that may occur in the future.

2.4. Response Strategies in Crisis Communication

A firm in crisis needs to take some tactics to restore their image or gain reputation back. Benoit (1997) suggests many response strategies to deal with this issue and what strategy to choose depends on the key message the firm wants to convey to its target audience. He describes five response strategies: nonexistence strategies, evasion of responsibility, reducing offensiveness, corrective action, and mortification. In the strategy of responsibility evasion, the firm can claim that the offensive action occurred by accident, or it does not have enough information to control all crisis elements. Reducing offensiveness is a strategy the firm can use in relation to the corporate political strategy in which it can have different approaches to minimize the anger from the public by using politician's voices, information, or actions. Reputation is invisible asset of a firm and is perceived by the public, so crisis communication is a means to reduce further damages to this asset and restore it (Coombs, 1999).

2.5. Corporate Political Strategy in Housing Crisis

Real estate firms need the government as an external stakeholder to build a good and safe environment as a condition for them to do business better. The government can intervene not only policy, tax, law but also influence the public behaviors and attitudes and these actions are connected to firms' activities. Corporate political strategy in real estate sector is increasing with their efforts to seek governmental influence on solving some policy issues and housing crisis (Davies, 2011). When a number of apartments increase, the government has to tie their control over real estate business to prevent crisis in prices and speculation. The economic recession will impact real estate investors to pour their money in housing and the government will issue policies and take some actions to trigger consumption. With this same purpose, in case there is a housing crisis, the government also steps in to keep the social security and prevent it from spreading to bigger areas. If the real estate industry is powerful, it can influence back the government's policies over the industry management or signal a big shift on housing policy. Therefore, a corporate political strategy in housing can be effective when the firm is powerful enough that they can achieve the political power in time of crisis. In case of financial crisis and procedure crisis, customers are in fear of losing houses or losing the ownership of the houses and they tend to fight back against the firm (Plitt, 2018) who sells houses to them and crisis relating to property are sometimes out of control.

3. Research Methodology

3.1. Participants

The crisis manager is interviewed to answer three research questions with three constructs: the effectiveness of corporate political strategy, the reasons for building this strategy and ways to execute it. Data collected from this are primary, showing in-depth data to see how a firm responds to a housing crisis with political influence with the public relation practitioner as the firm and the government side as a stakeholder or an agency. 18 press articles are collected as secondary data from credential press sources including local, national and international newspapers and e-news as BBC, Reuters, VietnamNet, VnExpress with a huge number of readers and subscribers. Media reports can provide two themes for answering the research questions: the key messages the firms want to publish on the face of media, and the speeches the government or politicians give to support the firms, using content analysis. Besides, 35 customers are interviewed to examine their reactions to key communication messages, supporting to answer the first question as measuring the effectiveness of corporate political strategy.

3.2. Research Design

This qualitative research uses case study approach, in-depth interview technique and interdisciplinary discourse analysis. I analyze one case study of a real estate firm in Vietnam: Hoang Anh Gia Lai Group was accused of destroying the environment and ignoring social safeguards in Cambodia and Laos by Global Witness and this made a crisis for the company (Reuters, 2013).

Interdisciplinary discourse analysis used to analyze media representation of industrial disputes, not only working with languages, images, pictures, and clips but also dealing with ideological and political dimensions of media messages (Dijk, 1991). The analysis can integrate available sources of knowledge with the social and political backgrounds, so the approach can analyze "historical dimension of discursive actions by exploring the ways in which particular genres of discourse are subject to diachronic change" (Graham, 2003). Besides news reports express the social and political attitudes toward the crisis on mass media, making it the major task of discourse analytical media research. Meaning (signified) of all of these information forms (signifiers) will be properly transcribed, identified, prioritized and coded, using textual analysis and thematic analysis. Four themes will be discussed: (1) inception of crisis, (2) corporate political strategy as response strategies, (3) post-crisis evaluation and (4) tactics for the strategy.

4. Findings

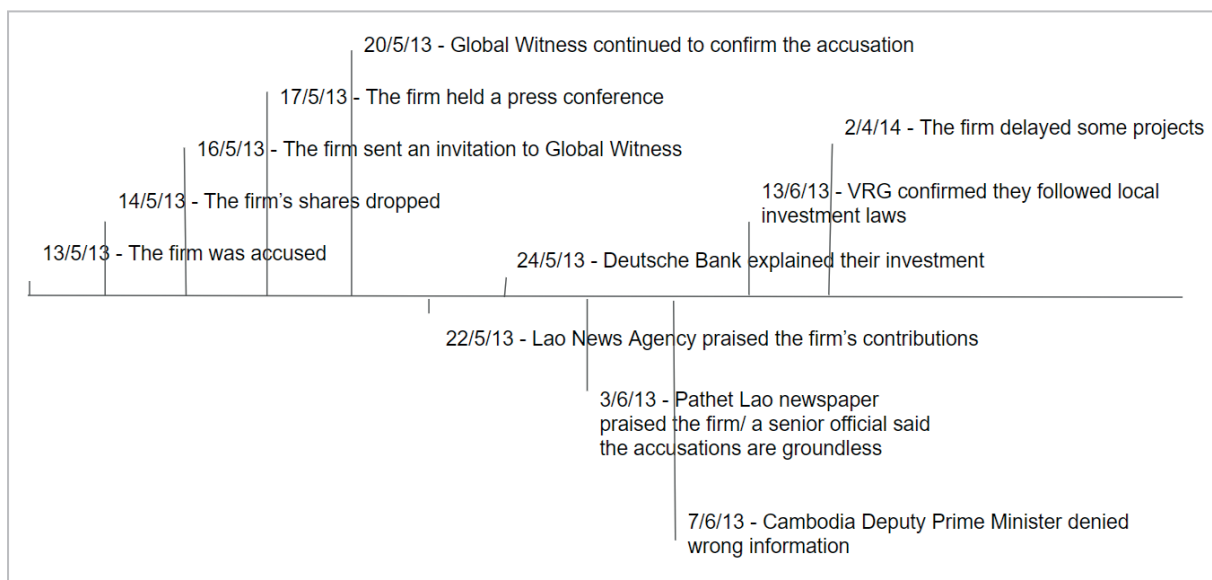
4.1. Case Summary

- Hoang Anh Gia Lai Corporation was accused of destroying the environment and ignoring social safeguards in Cambodia and Laos by Global Witness and this made a crisis for the company in 2013 (Reuters, 2013).
- The firm faced a land grabbing crisis occurring in Laos and Cambodia when Global Witness accused them of destroying the local environment and local work opportunities. The accusation mentioned that environmental issues are ignored as well as social livelihoods are not protected, and the firm exploited forests illegally and brought wood to their home country. It also suggested other financial institutions to withdraw their investments from the firm and other organizations from re-considering pouring money into this firm. The accusation was made twice within six months from May to November of 2013, making certain bad consequences to the firm's business operations. The firm did not intend to sue Global Witness for the accusation but tried to do some tactics in response strategies to cope with this crisis including denying all of the accusation, using the government's voices via media and giving evidence for the firm's good deed in these countries (Ngoc Hung, 2013).

Consequences

The firm's reputation was negatively impacted when they were accused of bribing the local government to win approval for the project and their shares went down in two sessions. The report is said to mislead their shareholders who continuously questioned the firm for what the truth was about the report and how they dealt with this crisis to prevent the shares from further reduction. Not only the shareholders but also the journalists made hundreds of calls with the eagerness for the inceptions of crisis and the firm needed to calm them down. The share price lost 1,400 dongs per share down to 21,400 dongs on 14/5/2013 and respectively the firm's asset on the stock market also evaporates 436 billion dongs. Moreover, Global Witness also asked Arsenal club to cut relationships or football training support with the firm due to their violations to environment protection. There was a campaign launched by Arsenal fans to reconsider making the tie-ins with the firm's football club in academic activities and technical and marketing partnership (Vu Le, 2013).

Figure 1. Crisis timeline



- (13/5/2013) Global Witness accused the firm of land grabbing, deforestation, and corruption in Laos and Cambodia.
- (14/5/2013) The firm's shares dropped very strongly, causing more than 436 billion dongs for the assets of the firm's chairman, nearly half the firm's stocks.
- (16/5/2013) The firm invites Global Witness to come to Laos and Cambodia to test the field but Global Witness replied that they wanted to meet the firm in Vietnam.
- (17/5/2013) The firm held a press conference to talk to shareholders, local and international newspapers to respond to the accusations.
- (20/5/2013) Global Witness continued to confirm its accusation of the firm's land grabbing, deforestation and the ignoring of social safeguards. They also claimed that the firm was trying to restore its image with the public rather than settling the consequences in the two countries.
- (22/5/2013) Lao News Agency praised the firm's contributions to Attapeu Province in a published article while Lao Pathana Newspaper mentioned positive changes the firm made to the local livelihoods (Tien Phong 2013). However, Global Witness still says the deals of land between the firm and local residents lacked transparency.
- (24/5/2013) Deutsche Bank, who owns some shares of the firm, declined all of accusations from the NGO and the claims that "it was providing financing to the Vietnamese firms". The Bank also explained that they provided "clerical trustee services to the firm which is a listed company as it does to thousands of publicly listed companies globally".

- (3/6/2013) Pathet Lao newspaper praised Vietnamese firms for their effort to invest and operate in the country, create jobs and improve local living standards. Besides, a senior official from Lao Foreign Ministry said that all the accusations were unreasonable and groundless on media.
- (7/6/2013) Cambodian Deputy Prime Minister also denied all false and wrong information provided by Global Witness and Radio Free Asia about the environmental issues and legal issues in Cambodia.
- (13/6/2013) The Vietnam Rubber Group (VRG), another firm that received the same accusation, stated that they followed Cambodian and Laotian investment laws upon conducting rubber projects in these two countries.
- (2/4/2014) The firm said in a decision that it delayed some projects and stopped some operations.
- The crisis timeline can be summarized in figure 1.

4.2. Inception of crisis

The main inception is the firm was accused by Global Witness, established in 1993, with the aim to fight against natural exploitation, corruption and human right abuses around the world. The firm has business operations in Laos and Cambodia, including building rubber plantations on a mass scale and fruit tree plantations. Environmental issues have become general concerns for some non-government organizations as Global Witness to show their attention and watches. What this organization needs is how the firm reacts to these issues and protect the environment rather than take some responses to the crisis to rebuild its image. The accusation of deforestation touches many hearts of investors, shareholders and fans of Arsenal club and reduces its stock prices, forcing the firm to find ways to deal with crisis.

Gare (1996) stated that there was a connection between environmental issues and globalization. When a firm turns globalized, these issues are growing and become concerns for organizations protecting environment. The firm built rubber plantation out of Vietnam and for this purpose, it is supposed to deforest the land that is handed over to the firm without the conformation with the local laws on protecting forests. The accusation also mentioned the firm hides its identity by setting a web of subsidiaries. According to World Wild Life Fund's report (Bradford 2018), the earth loses 18.7 million acres of forest yearly and with the consumers and investors's awareness of environment protection around the world, this report made them angry and needed information clarification. The common reasons for this loss are making land available for housing, producing paper, growing other plants and other agricultural purposes.

4.3. Reasons for Choice of Corporate Political Strategy as a Response to Crisis

The firm was accused by a non-government organization outside Vietnam and its reputation was quickly impacted not only in Vietnam but also in international markets, especially in Laos and Cambodia where it has business operations. The firm's shares dropped quickly and an action should be taken to avoid further reduction in the stock markets. Its projects in both countries are operated in a large scale and it also performed corporate political activities to win the business licenses from the local governments, so it has worked with the local government before and maintained good relationships with them. The local governments in turn could influence the local media as Lao News Agency and Pathet Lao Newspaper to praise the firm's contribution to improving the local living standard, creating jobs and they also denied what Global Witness had accused. The crisis had been quickly solved, especially restoring the image of the firm when Arsenal fans also asked their club to withdraw the training program from the firm's Hoang Anh Gia Lai - JMA Academy.

The local government is responsible for granting the business license to the firm for carrying out the project and monitoring its business, so the government acts as an external stakeholder to the firm. The government raised its voices over the crisis as a credible source for other stakeholders not to worry about the accusation from Global Witness and change the

shareholders' behaviors. The firm's contribution to the local community brought benefits to the government in term of improving local employment and increasing living standard. For a big project in a large area, both the firm and government work closely to exchange information and control the stability, therefore it should be a long-term relationship and they support each other in emergency cases. The government used the local media to convey its message to the public and Global Witness by denying the accusation and hoping that this organization withdrew the accusation. The firm used the government's voice to help reduce the public's misunderstanding and influence the organization to change its information on the report as with positive voice it could gain back the trust from the public. Furthermore, the project was conducted at a regional level, a lot of labors were employed and high tax revenue was paid, the firm chose the corporate political strategy as a strategic response to calm down stakeholders.

4.4. Evaluation of Corporate Political Strategy

Target audience

The crisis communication strategy focused on the investors and shareholders of the firm as the primary target audience, and the local people in Laos and Cambodia as well as Global Witness as the secondary target audience. The reason for putting investors and shareholders as the primary audience is because the firm's shares dropped in the stock market and its CEO was continuously questioned about the truth. Global Witness is not the main target audience though they are the main accuser, and this is due to the fact that the firm believed getting back the investors' credibility was more important to keep them stay with the firm and prevent the stock prices from further reduction. Coombs (2007) states that instructing information and adjusting information necessary to share the stakeholders who are key audience. Instructing information is about what is going on in the crisis and the investors can believe in information provided by the firm rather than the news around the media. Adjusting information is actions the firm will do to overcome the crisis and rebuild its reputation.

Key message

There were three key messages that the firm tried to convey to their target audience. First, the firm said that all the accusations made by Global Witness were wrong and the evidence the Global Witness gave did not reflect reality. Second, the firm abided by the local law, protected the environment, paid all tax revenue and kept the local social security. Third, the local government and local mainstream media praised the firm for its strong contribution to the local community development and the improvement for local living standard as well as employment rate. These messages were written in the press releases in different press conferences and then published in local media. The third message was a compromise between the firm and the local government in which the government will raise their voice over the media.

Result

The primary target audience (n=10) understood the key messages conveyed in the crisis communication campaign and directly questioned the CEO of the firm. They were worried about the crisis that could harm their investment and made further reduction in stock prices. However, the stock prices gained back the previous prices after the campaign was finished and the political voices brought positive support for this. The secondary target audience (n=25): Global Witness did not believe in what the firm said as they said the firm just focused on restoring their image and dealing with the investors in Vietnam rather than working on sincere actions to protect the environment. For the local people in Laos and Cambodia, they are both workers who work in the firm and those who are living around the area. They did not really care about the case but about the jobs they were doing and believed in what the local government praised the firm on mainstream media. The corporate political strategy with the use of political voices worked well with the primary target audience and local people as the secondary one, but it did not bring any good result to Global Witness, the one that accused the firm.

4.5. Tactics for Corporate Political Strategy

The local government as an external stakeholder

External stakeholder influence is very important for a firm to achieve success in foreign countries as Laos and Cambodia where the government tries to manage the firm with foreign investment. The firm built communication process and credibility with the local government by continuously exchanging information, abiding by the local law and building coalitions with the politicians. Understanding the local government's needs and interests is also a good condition to have a rational choice for using the corporate political strategy not only in time of crisis but also other mutual benefits. With a project operated on a large scale, the firm had to build and maintain a positive relationship with the local government or even higher government. This strongly impacts the corporate political strategy when the firm is aware of the external stakeholder's perceptions and motives. The local governments need the project to change the living standards and improve income for local residents and they were willing to raise voices over the case.

Continuous contribution to the local community

With the interdependence between the firm and the local government, they share similar interests and with the rational choice theory, the government just accepts a firm's corporate political strategy when they find something beneficial in return. The firm had to prove they made good contributions to the local community as employing the local residents, training them to do the jobs, paying enough tax according to the local law, protecting the environment and assuring the social security. The firm also had a person who could act as a public relation specialist to work from time to time with some politicians in the government to maintain relationship and in times of emergency. This is quietly wielded influence the firm wants to get not only to win a project but also help solve any crisis that may occur. There was a budget for this relationship building and maintenance and it was accounted for public affair budget.

5. Discussion

RQ1: At what extent is a political corporate strategy able to help communicate a crisis in housing?

The government can accept to raise their voices over a crisis

The government can accept the corporate political strategy as a response strategy when they are an external stakeholder to the company. In a real estate crisis, the firm deals with both internal and external stakeholders (Donaldson & Preston 1995) and if the government joins with the firm to solve the case, it becomes an agency. In this case, the government becomes not only an external stakeholder but also an agency when they stand together with the firm to deny all accusations and praise the firm for its positive contributions to the local community. One of the firm's success is using a stakeholder's voice (government) to change another stakeholder's behaviors (investors and shareholders) with the aim to reduce the negative discussions and questions about the firm's business operations in Laos and Cambodia. Both stakeholder theory and agency theory can be seen here as the firm tried to get the government's engagement in preventing the firm from further damage.

Extract 1. Lao News Agency published an article on May 22 praising the group's "contributions", and Lao Phatthana Newspaper said that HAGL has initiated positive changes in Attapeu Province. The article cited Party Secretary of Attapeu Province Khanphan Phommatham as saying that the area previously had backwards production methods and that the residents there faced many difficulties (Dtinews Dan Tri International, Tien Phong, 2013)

A firm can take advantage of political influence to change behaviors or attitude of target audience

The firm exchanged information with the local government that the communication between two sides could be obvious and exact. They also mentioned that they needed to build and maintain relationships with the government before the projects began and continued during the time the crisis was occurring. There were transactions between the firms and the government to make sure that the crisis could be properly solved and meet the expectations of the target audience as well as the firm.

The firm can ask the government to get involved in the crisis resolution

The government's action or voices can become more threatening or convincing in the public, so the firms can take these advantages to get the government involved in crisis solutions. In this case, the government praises the firm's contribution to local community and stands with the firm to deny all the accusations, helping the firm convey the key message more successfully. Vietnam's politics is on pay-to-play basis and most of political relationships depend on this basis, so the firms allocate certain budget on building and maintaining relationships and spend more during crisis. In crisis, the game is in the government's hands, therefore they set the expenses for the game and the firm with stronger finance usually pay more.

- *RQ2: Why does a real estate firm have to build relationship with local government?*

Building good relationships with local government in Vietnam can make benefits for the firm

Real estate firms invest big budget in building houses or apartments and suffer from high risks in case the policies change or crisis occurs. They pay high tax revenue thanks to rich revenue gained from big projects with high values and this gain the government's attention, especially in policy making and area infrastructure. The firm views the government as their important external stakeholders who can bring benefits to the firms in gaining business licenses, construction licenses or other quotas. It could not solve the crisis effectively if it did not gain support from the local government in Laos and Cambodia as the government there knew exactly what happened in their regions and they truly impacted local media to publish positive articles.

Extract 2. During the press briefing, Sithong Chitnhothinh also expressed his strong belief that no force can ruin the special friendship, solidarity and comprehensive cooperation between Laos and Vietnam... Earlier on May 21, Pathet Laos Newspaper posted an article praising the goodwill of Vietnamese businesses and investors operating in the country. It said HAGL Group has made contributions to socio-economic development in Laos by creating jobs and gradually improving living conditions for local people. (Vietnamplus, 2013)

Using the government's voices to impact media, other stakeholders and even laws

The local government had certain control over local mainstream media to disseminate their policies or announce any urgency to the local residents. In Vietnam, even in Laos and Cambodia, there were no private media as most of them are state-owned and controlled, so they were ordered or commanded to publish any news with the government's benefits. In this case, the government published positive news for the firm.

Extract 3. We had to work with the Lao News Agency and Lao Phatthana Newspaper to praised our firm's investment in poor provinces of Sekong and Attapeu and our providing a loan of USD35 million for social services in these localities, including a hospital and residential areas. We used the government's actions to impact these media to publish positive news about our firm to show our good contributions to improving local living conditions. (Hoang Anh Gia Lai Group, 2019).

Real estate sector needs big investment and any formation of partnerships with local authority can lead to risk minimization

With the development of infrastructure and increasing demand for houses, more firms in real estate sectors have been established, though small or large, local or foreign. They try to form good relationships or partnerships with the local government with the aim to win more projects or gain certain privilege. In this case, the firm built relationships with the local government from the time it began researching the market and preparing to apply for business licenses. Though this strategy is costing and time-consuming, it had to do this for current and future potential benefits. In the interview with a firm's crisis manager, to gain more engagement from the government, a firm also had to receive their relatives to work in the firm.

RQ3: What tactics could be done to execute a corporate political strategy in crisis communication?

Building relationship with members of governmental bodies

This relationship can be built at the national level or provincial level, depending on the size and impact of the project. In this case, the firm had to do this at national level with the Vietnamese government's influence over the diplomat relationships between Vietnam and Laos as well as Cambodia. Once the relationship was formed, personal regular contact had to be kept that the firms could be remembered in the event of any policies or changes published in the relevant industry. Most of the crisis managers mentioned that the regular visits happened on certain holidays as Tet holiday, Independence holiday or Revolutionary holiday.

Extract 4. As a real estate firm, we work with a variety of governmental departments through many areas. In each department, we have plans to build relationships with the head of department or at least one important officer in that department and we use pay-for-benefits strategy to obtain their influence. (Hoang Anh Gia Lai Group, 2019).

The firms have relatives who work in the government or even they themselves work in the government

With a very old trend in Vietnam, the government officers do not earn high salary for their living and they can make money thanks to selling relationship and influence. Though it is dark business, it is acceptable if a firm wants to do business smoothly and more successfully. The officers may ask the firm to receive their relatives to work in the firm and vice versa the firm may insert its people in the governmental bodies or tight the relationship with them. This might be unacceptable in other countries but in Vietnam, it is normal and considered as rational choice. Any changes in current policies or dissemination of new policies can be quickly exchanged and the firm can adapt its strategies properly. The fee paid for this is not bribery but behind the scene and the firm may put it in communication expenses in accounting activity. In time of crisis, these expenses are worth paying or spending in return of the government's voice or influence to change the audience's attitudes and behaviors.

The firms can use relationships of the third parties who have connection with the government

When a firm does not have any relationship with the government with one of its stakeholders has, it can use the third party to achieve the connection. From the third party's relationship with the government, the firm can gain a better introduction and begin to build a relationship. In this case, the firm can get accessible to the governments in Laos and Cambodia thanks to the introduction from the government in Vietnam. This is also called the third party technique when it put the words in the third party's mouth and a principle of public relations. Developing the third party support or the government assistance is necessary in the world of crisis that may happen all the time and the third party is not only the government but also other influencers from many sectors. Independent third party as the government can be connected with or built with in the formation of alliances, associations, political event sponsors or even the employment of the government's relatives to work in the firm.

Extract 5. We achieved relationships with the local government in Laos and Cambodia thanks to the introduction from government officers in Vietnam. From this politically connected relationship, we make the formation of partnerships with the local government from the beginning of project. (Crisis manager, Hoang Anh Gia Lai Group, 2019)

6. Conclusion

Corporate political strategy is necessary for real estate sectors to reap benefits for both a firm and the local government that it expects to engage in the strategy with. The firm with strong financial background can accumulate political capital more easily than those with weaker background, but both of them need to build and maintain relationships with politicians to acquire a great deal of political capital. An appropriate political strategy can help to solve certain crisis in real estate sector in case the government is an external stakeholder or an involved agent. The government only agrees to raise their voice if the crisis impacts negatively the social secu-

rity, the firm's project is legal, its contribution is positively and socially recognized. All mainstream media in Vietnam are controlled by the government who then can influence the media to pour positive news that is favorable for the firm.

This research is important for both managers and theorists in the area of crisis communication and political power. Crisis managers can act as public relation specialists who prepare and launch the corporate political strategy to build a relationship with the government from pre-crisis to post-crisis. This process is clearly structured in a large corporation or a firm with strong financial background to receive the government's voice on a pay-for-benefit basis. They also connect properly with media who are also strong influencers in Vietnam as they can support the firm to convey appropriate key messages to the public. With theoretical contributions, corporate political strategy is a public relation tactic and also a response strategy in mitigating a crisis. The government usually shows its highest political power as they can impact the change in public's attitudes and behaviors if the political sources are credible.

The research is done in Vietnamese context with the political system completely different from the rest of the world, so this limits the general statement of the research outcome. Besides, the research limits with one case, so more cases in real estate sectors should be used to analyze to see how corporate political strategy is really done in Vietnam. In Vietnam, the government set laws and regulations on press and publications and the firms use the commercial media to influence the making or changing of policies, but media are controlled by the government and the content for publication are checked by the Ministry of Information and Communication for their decision on whether the content is published or broadcast.

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The Responsibility of the Social Media in the UAE towards Terrorism from the Perspective of the Emirati Youth

A Field Study on the Emirati Audience

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Abstract

The study at hand seeks to recognize the rate of the emirates public's dependency on mass media as sources of news that are related to terrorist acts. It also aims at monitoring the responsibility of the emirates mass media, both social-wise and security-wise, towards tackling terrorism cases. Besides, it attempts to have a vision of the future that can be required for developing the way to which the emirates media resort in dealing with terrorist acts. This may arise in light of the experts' proposals.

Keywords: Terrorism; Social media; Media coverage

Introduction

The one, who scrutinizes the phenomenon of terrorism and extremism, finds that it gained great importance through the peoples and governments all over the world due to their critical impacts on the state security and stability upon discovering that we deal with an organized criminal phenomenon, which aims at creating a general atmosphere of fear, terror and threat by practicing violence against individuals and properties; i.e. this critical phenomenon aims at hindering the stabilities of communities, impacting their political statuses and destroying their national economy.

More recently, the media has been paying special attention to the events of terrorism due to including an increasing degree of conflict. These events are preceded by the introduction of newsletters on television, international satellite channels and the front pages of the newspapers. In this regard, the public perceives them as very important events during a certain period of time.

Along with the global concern of media in general, and the Arab Media in particular towards covering the events of terrorism, several types of terrorism related to this coverage are revealed, however; few studies have sought to identify the audience's own assessment of media coverage of terrorist events. Hence, the importance of this study is revealed, as it seeks to determine the attitudes and perceptions of the audience about the media coverage of terrorism. (Howaida Mustafa, 2015).

There are two theories regarding the extent to which media coverage of terrorism affects the public opinion: (1) the theory of causal relationship between media discourse and terrorism, where media coverage of terrorism leads to the spread of terrorism; (2) the theory of media discourse, terrorism and divergent relations; The theory is that there is no scientific evidence that the media coverage of terrorism is responsible for doubling the terrorist operations. There is no relationship between the two variables. Therefore, the authors of this theory call for non-interference in the performance of the media in general and in relation to terrorism in particular (Tamiri, 2015).

The Arab media generally do not rely on experts and specialists in the security, social, psychological, cultural, religious, and educational fields to deal with the different aspects of the secu-

rity phenomenon, nor do they cooperate with the educational, religious and social institutions concerned with confronting the terrorist phenomenon. (9) The Arab media coverage of the terrorist phenomenon is dominated by official character and is almost exclusively dependent on a single source. 10 The coverage of the terrorist phenomenon by the Arab media is characterized by irregularity and lack of continuity. 11 This coverage is characterized by spontaneity, improvisation, and lack of planning, making it a cover that lacks a frame of reference that achieves systematic coherence. [12] This coverage is often in the form of exaggeration or intimidation of the terrorist phenomenon. (Ibrahim Mohammed Abu Al-Faraj, 2006).

The role of the media in dealing with terrorism issues derives its importance from the increasing public reliance on mass media, which is characterized by non-stability. These are the conditions, which are the result of the occurrence of terrorist events, where the audience are quick to use the means of communication as being considered a communicational system that is created around the changing events in the society in order to get acquainted with those events, understanding them and considering the exigencies of positive interaction with their consequences. (Al-Sayed Bahnasi Hassan 2000).

The role of the media in covering and addressing the issues of terrorism is not confined to providing the public with information about terrorist events, but also its role extends to dealing with these events professionally, in order to draw attention to the dangerous and renewable nature of these events, which require exerting efforts by the mass media in order to guide the professional practice to be able to convince them to realize the seriousness of terrorist events, Accordingly, the importance of this study is revealed, as it provides the mass media with data on the perceptions and attitudes of the audience towards covering the events of terrorism.

1. Importance of Study

The importance of the study lies in the following aspects:

1. The intensity of media attention to terrorist events and the effective role of various mass media in covering terrorist events and its obvious impact on the formation of public opinion.
2. Assessing the limits of social responsibility of the media in dealing with terrorism issues.
3. Its attempt to clarify public perceptions and attitudes towards the media treatments of terrorism
4. Seeking to identify the perceptions of one of the important parties, namely youth and university students in evaluating the media treatments of terrorism.

2. Objectives of Research:

1. Knowing the attitudes and perceptions of the audience towards the media coverage of the terrorist events through the Arab Mass Media.
1. Knowing the attitudes of Media students towards the advantages and disadvantages of the terrorist events through the Arab Mass Media.

3. Previous Studies

- Rasha Al-Ebiary's study, shooting of combatting terrorism, a comparative analysis of Al-Jazeera and CNN's coverage of Gaza and Iraq 2003, New Castle University, Britain. It dealt with the relation between the army and media in the satellite channels coverage of the contemporary wars and forming the image, which helps in forming the public opinion. The study showed the decisive impact of the military forces on the TV knowledge. Moreover, it showed the forms of resistance against the forms of hegemony used by the military machine, and showed the superiority of Al-Jazeera Satellite Channel's speech against the speech of CNN, where the image shown by Al-Jazeera Channel clearly surpassed all images.

- Torky Saleh's Study (2006) on the Extent of the Security Media Contribution in Dealing with the Terrorist Phenomenon revealed that most of the materials related to terrorism were published in the inner pages, and the informative nature dominated the Saudi Arabian Press in dealing with issues of terrorism. Moreover, the narration method was dominant and the local correspondents took the first place as being the sources of news on terrorism.
- The study of Jamal Razan, 2015 "The Arab Media Strategy of Combatting Terrorism", observing the points of strength and weakness in the Arab Media Strategy of Combatting Terrorism, dissociation of its intellectual takeoffs and observing its objectives and mechanisms of implementation. The study concluded that the takeoffs and references of the Arab Media Strategy of combatting terrorism must be mainly based on the basis and reference of human rights and the freedom of opinion and expression first and for all. With the absence of those references, and the comprehensive approximation, which adopts more than one approach, the strategy will necessarily be incomplete, stimulating and producing an atmosphere that considers more acceptances for adopting the thought of terrorism and produces homogeneous media outputs either consciously or unconsciously with the contexts of terrorism.
- The study of Tahseen Mohammed, 2016, on the Role of Mass Media in Combatting the Phenomenon of Terrorism and Extremism, aimed at knowing the role of mass media in combatting the phenomenon of terrorism and extremism, members of the teaching staff for the variable of status.
- The study of Al-Sayed Bahnasi Hasan, titled: "The Extent of Audience's Dependence on the Egyptian Mass Media during the Crises". The researcher deduced a number of results, which revealed that the "television" followed by the "newspapers" and the "Egyptian Broadcasts" come on top of the mass media on which the audience depends during the crises. Moreover, the results indicated that there were statistically significant differences among the three Egyptian Mass Media in terms of the reasons relevant to the audience's dependence on them during crises and the existence of a high degree of similarity between the audience's degree of confidence in the Egyptian Mass Media and the degree of depending on them.
- The Study of Suhair Othman Abd El-Halim, "Terrorism and the Internet", 2008, which indicated that the sample of study used the Internet as being considered the quickest method of presenting information on the critical and urgent issues. Results of the field study indicated the support shown by the sample of study for the great role played by the newspapers and Internet in providing it with information towards all the community issues, and not only the ones related to terrorism, even if some of the study sample individuals mentioned that both newspapers and Internet had a clear impact in recognizing terms that are directly related to the phenomenon of terrorism.
- The study of Al-Taher Awad Basha, "Attitudes of the Arab Youth towards the Religious Terrorist Communities and Employing the Social Networking Sites", 2015, indicated that the sample of study realized the danger of the terrorist communities and agreeing that the terrorist communities use Facebook to disseminate their ideas and that they use terms; such as "Striving" and "Maintaining Belief" to attract the youth.
- Nawal Al-Safty dealt with the incidents of religious violence, which took place in "Al-Kash'h Town", in the Egyptian Governorate, "Suhaj", and the researcher sought to know how the Egyptian, national and partisan newspapers would deal with the urgent events and crises by applying this to "Al-Kash'h" events. Results of the study indicated that most of the journalistic manipulation of "Al-Kash'h" events had an informative nature in the first place, while the other journalistic manipulations; such as the article, investigation and materials of opinion came in the last place. Moreover, newspapers,

sample of study, focused on the religious discourse towards the events; especially the one delivered by Al-Azhar and other religious institutions in Egypt.

- In a study conducted by Sayeda Ibrahim, attempting to know the extent of attention paid by the Egyptian partisan newspapers towards the issue of terrorism and how to deal with it, titled: "Attitudes of the Partisan Newspapers towards the Phenomenon of Terrorism", she used the Newspaper Content-Analysis Approach. Results of the study proved that the partisan newspapers were interested in the phenomenon of terrorism and its impact on violating stability in Egypt. Moreover, the researcher concluded that there were differing political partisan newspapers in terms of defining terrorism. In addition, results of the study revealed that the reasons of the spread of terrorism in Egypt referred to external foreign powers, lack of job opportunities and political vacuum.
- In a comparative survey study conducted by Shahinaz Basiuny, titled: "The Relation between Exposure to Social Media and the Nature of Attitude towards the Problem of Terrorism", she attempted to know the extent of success shown by the means of communication in crystalizing and supporting attitudes that reject terrorism in light of a number of influential intermediary variables. Results of the study showed that television, personal communication and radio broadcasting were the main sources of the sample to get acquainted with the phenomenon of terrorism, which began to increase in the Egyptian Society. Moreover, the study indicated that the feelings of rejection towards terrorism among the sample individuals increase along with the increase in the rate of using the means of communication.
- The study of Jihan Yosry, "The Journalists' Attitudes towards the Egyptian Media Coverage of the Terrorist Events", 2002, concluded that the coverage of the Egyptian Media for the international events and issues of terrorism was informative from the journalists' perspective, and the journalists in the sample of study considered the necessity of changing the form and content of TV manipulation in dealing with the current events in a way that achieves promptness, fast pace and providing different opinions about the events.
- The study of Soha Fadel (2003) was interested in knowing the relation between exposure to the Egyptian newspapers and the awareness of the issue of international terrorism through the university youth. The study indicated that the spiritual impacts were in the first place and the impacts were followed by the cognitive and the behavioral ones.
- Regarding the university youth's dependence on social media during Dahab explosions crisis, results of the study, which is conducted by Ibrahim Abu Al-Faraj 2006, indicated that the satellite channels occupied the information sources list in terms of the university youth's dependence on them, followed by the national newspapers and the Egyptian Television.
- The study of Nawal Abd El-Aziz Al-Safty 2003 revealed that there was compatibility among the respondents' attitudes towards the media coverage and their attitudes towards the issue of terrorism.
- The study of Khalid Salah El-Din (2003) discussed the relation between exposure to the informative content of the social media on terrorism and being aware of this issue through the public opinion. Results of the study indicated that there were statistically significant positive correlations between the intensity of exposure to the informative content of social media and the respondents' attitudes towards terrorism.

4. Problem of Research

The problem of study is crystalized in knowing the extent of audience's dependence on social media as sources of news relevant to the terrorist events and observing the social responsibility of social media in dealing with the issues of terrorism as well as evaluating the

Arab Media performance from the Emirati Audience's perspective in dealing with the issues of terrorism, its extent of homogeneity with the necessities of the professional performance as well as inducing a future perspective in light of dealing with the events of terrorism through the Emirati social media.

5. Theoretical Framework of Study

The Study Adopts Several Theories as Referential Frameworks; including:

1. **Mass Media Dependency Theory:** Upon the increasing rate of information in the modern age, information has been representing a source of strength and excellence to those, who possess them and access them. At the general level of society, most of the systems; such as the political and economic systems, etc. seek to obtain information for the survival of the system and its ability to interact with the society and other systems. At the private individuals' level, each individual seeks to obtain information to achieve the social and psychological objectives. Social media are considered as one of the important and basic sources of information on which individuals depend in the modern age. Due to the difference of individuals' objectives and interests, they also differ in terms of the degree of dependence on social media, and consequently, they form special systems for the social media related to the individual objectives and needs for each one of them, the nature and degree of dependence for each method in terms of their relation to those objectives, and the individuals' participation in some objectives and the degree of dependence on the methods, which achieve those objectives, result in the emergence of common systems of social media among categories or groups. For instance, individuals, who are highly interested in local affairs within a category that has its own system of media when it finds that this interest is achieved through reading local newspapers and others within categories seeking entertainment and relaxation through certain programs on TV. Accordingly, this division of categories indicates the existence of different systems of social media in terms of individuals and determined by the nature of objectives, the degree of interest in them, the nature of dependence on certain methods and the degree of achieving those objectives. (Maha Abd El-Majid, 2013). Relations of Dependence on social media are based on two main pillars, which are: (1) Objectives: In order to achieve the personal and social objectives of the individuals, communities and organizations, they must depend on resources controlled by other individuals, communities and organizations and vice versa. (2) Sources: Individuals and organizations seek to access the different sources that achieve their objectives. Social media are considered a social system to which individuals seek in order to reach their goals, and social media control three types of information sources, which are: collecting information, coordinating information and editing information in order to be given appropriately, then published and distributed to undefined audience.
2. **The Social Responsibility Theory,** which is known as: "The group of tasks that the press is committed to perform in front of the society in its different political, economic, social and cultural fields; where the professional values must be available in their manipulations and materials; such as accuracy, objectivity, balance and comprehensiveness, provided that the press must have actual freedom, which enable it to be responsible before the law and society. Social responsibility of press also means "maintaining common interests or maintaining the needs of society and its welfare through the press being characterized by rectitude, accuracy, and justice as well as considering the ethical aspects and values". From the two previous definitions, it is evident that the concept of media social responsibility is based on a simple principle, which is the commitment to the familiar professional values by the press; such as accuracy, objectivity, honesty, considering the culture and beliefs of society as well as performing tasks that are relevant to the satisfaction of society needs. (Mekkawy, Hasan Emad, Al-Sayed, Laila Hussain, 1998).

3. The structure of study depends on the Informative Frameworks Theory. The studies of the Gate Guard Theory has proven that communicators intervene in determining what is published and what is not published, which allows them to carry out this task in an easy, systematic and quick way; thus they form the frameworks and contexts of knowledge for the public; This in turn affects how the audience perceives the content they are exposed to. The experiential framework of the communicator may be of such strength and importance that it sometimes eliminates the personality of the contact person; in the end, it becomes function-only; it has no distinctive features or general character that distinguishes it from choice or determines its style; which impose their patterns and patterns on them during work. It may be done by selecting specific contexts and vocabulary to describe the event; either by exaggeration or understatement, as well as by addition, deletion, distortion, or allowing specific details to be mentioned; it is a specific view to the extent that the information is The communicator relies on reference frameworks in the selection and formulation of the news, focusing on these frameworks to highlight certain aspects of the story at the expense of other aspects, so that it appears The news is true; but in fact it is not perfect. The frame gives the meaning or meaning to the news to be meaningful or important to the public, and determines the portal, or the corner through which the news can be seen. It is also a tool for interpreting media events in a way that helps the recipient understand them. The types of frameworks vary between general and specific frameworks, depending on the characteristics of the objectivity. There are two levels: the first concerns the measurement of unclear content or what is known as implicit content, and the second influencing the shaping of public attitudes towards the issue under consideration. The media by focusing on certain aspects that define themselves as frameworks that can eventually influence the shaping of public standards on certain issues; this is reflected in the identification of public views and attitudes towards these issues)
4. Usage and Satisfaction Model: in this context, the researchers extracted, based on empirical studies, several types of uses: First, information-related uses. The second general category of uses is linked to the so-called event coordination, such as organization of school meetings, social events, fund raising, religious events and birthdays through the use of the event program provided by the Facebook site. The third category of uses relates to the creation of groups sharing common interests. These uses confirm that social networks have a strong relationship to everyday activities; where the introduction of uses and saturation assumes that members of the public are motivated by psychological and social influences to use the media in order to obtain special results called "Satisfactions", (Mekkawy, Hassan Emad, Al-Sayed, Laila Hussain, 1998).

6. Type and Approach of Study

This study is a descriptive one, which aims at collecting data on the perceptions and attitudes of the audience about the media coverage of terrorism, as well as studying some variables related to usage; such as gender, social status, educational stage and others. This study is based on the survey approach as a systematic scientific effort used to obtain information or descriptions of the phenomenon, subject of study.

The methodological vision of this study is based on measuring the following variables: (i) standards of measuring the usage intensity and pattern of use; (ii) measuring the habits of usage; (iii) measuring the motivations and satisfactions, taking into account the diversity of dimensions that constitute the needs directed to our behavior in the use of the social media, between "psychological, social, and cognitive." There are areas of overlap between psychological, social and cognitive needs that guide the behavior of individuals in the use of the social media. This reinforces the likelihood that the relationship will shift to a reliability relationship rather than a relationship of use and satisfaction, assuming that the multidimensional need is more powerful than the one-dimensional need.

6.1 Questions of Study

The Study Seeks to Answer the Following Questions:

1. What is the extent to which the Emirati Audience is exposed to news about terrorist incidents?
2. What are the reactions of the Emirati Audience about the news related to terrorist incidents?
3. What are the perceptions of the Emirati Audience about the roles played by the Arab media in dealing with terrorist events?
4. What are the perceptions of the Emirati Audience about terrorism and terrorists?

Approach of Study:

The study depends on the Survey Approach, which is considered as one of the main approaches in the descriptive researches with both their descriptive and analytical aspects in order to collect and interpret data to reach implications of scientific importance to observe the audience's attitudes and perceptions towards the coverage of mass media for the terrorist events.

6.2 Sample and Community of Study

The community of study consists of Sharjah University Students with their different specializations as a sample that represents the youth in the UAE Community, and to get acquainted with their perceptions and attitudes towards the media coverage of terrorism.

6.3 Data Collection Method

The study uses the questionnaire form as a data collection tool. It included the various aspects that the study seeks to identify according to the objectives of the study and its questions. The questionnaire paper included two axes:

- The first axis: the habits and uses of the media in exposure to media coverage related to terrorism
- The second axis: Evaluation of the roles played by the Arab media in covering terrorist events from the point of view of the public
- Reliability and Consistency Test

In order to verify the validity of the questionnaire, its validity for the application and the extent of its representation for the purposes of the study, it was presented to a number of specialized professors in the field of media. 10% of the respondents, it was necessary to rephrase a number of statements to be more suitable for the respondents, thus achieving the veracity of the data.

To verify the stability of the data, the researcher used the test-re-test method, where the researcher re-applied 20 form equivalent to 10% of the sample, and the proportion of consistency 94., which indicates the clarity of the form, and confidence in the validity of the final application, and then This form was applied during the months of May, June and July 2019

Statistical processing of data

Data were statistically processed using the SPSS program. The following statistical parameters were applied: simple frequencies and percentages, mathematical average and standard deviation, T-test and F-test.

6.4 Field Study

Chart no. (6) Shows the Distribution of Sample in terms of Exposure to Mass Media

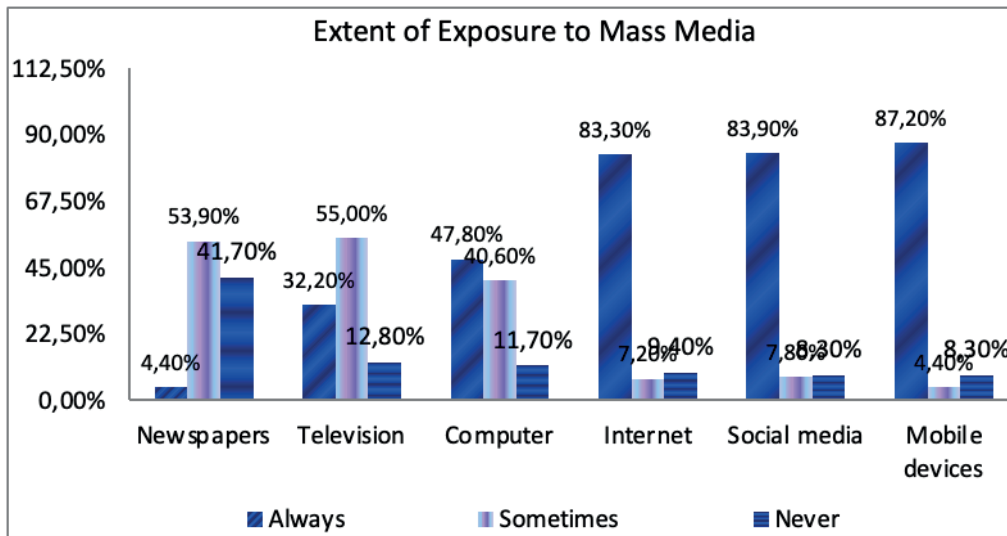


Chart no. (6) The Extent of Exposure to Mass Media

The previous chart shows the extent of the exposure of the members of the study to the various mass media. It was found that the extent of permanent exposure to mass media, and it took the first place 83.9%, followed by the Internet at 83.30%, the second place was for mobile devices 87.20%, the mobile devices 87.20%, which took the third place, then computers at a rate of (47.8%), then television at a rate of (32.2%) and, finally, the newspapers (4.4%). While exposed “sometimes” had a rate of 53.9%, television 55.0%, computer 40.6%, internet 7.2%, social media 7.8%, and mobile devices 4.4%. This indicates that the permanent use of media took the first place for most of the mass media.

Chart no. (7) Shows the Distribution of Sample as per the Extent of Daily Exposure

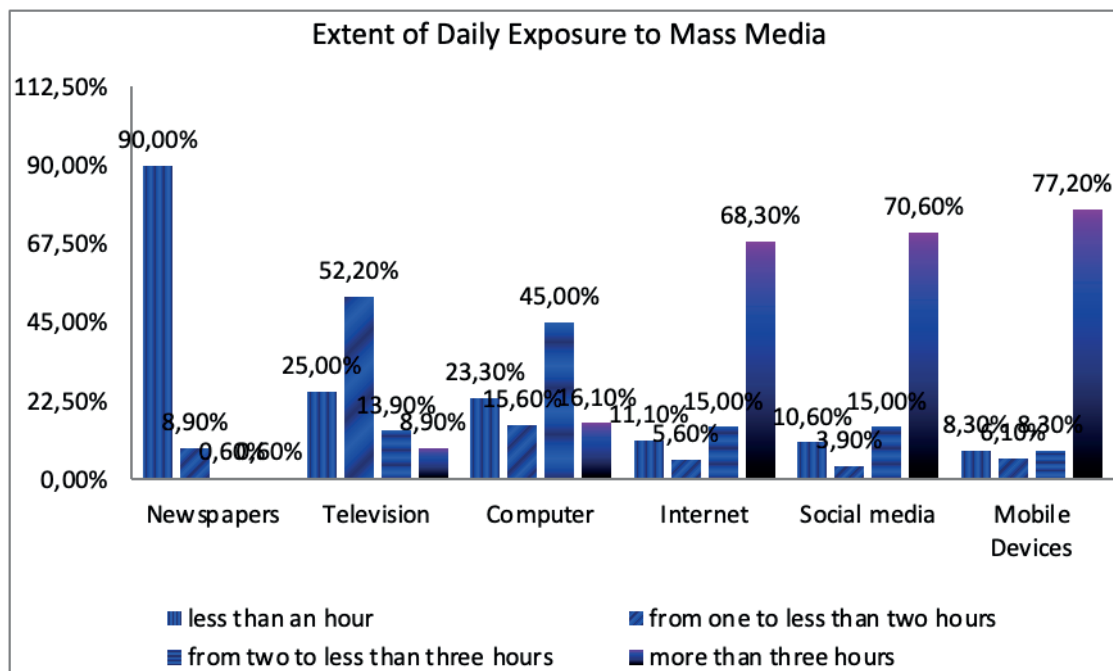


Chart no. (7): Extent of Daily Exposure to Mass Media

The previous graph shows the extent of the daily study sample's exposure to the mass media. It was found that the exposure to newspapers is less than one hour per day by 90.00%, the TV from one hour to less than two hours by 52.20%, the computer from two hours to less than three hours a day by 45.00% Of the three hours by 68.30%, social media more than three hours by 70.60%, and mobile devices more than three hours by 77.20%. According to the previous analysis, the rates relevant to the use of more than three hours for most of the media were respectively mobile devices and social media and the Internet (77.2%, 70.6%, and 68.3%). This indicates the ability of these devices to attract the sample due to their speed and spread in the community.

Chart no. (8) Shows the Distribution of Sample as per the Most Prominent Topics Followed by the Study Individuals via the Mass Media

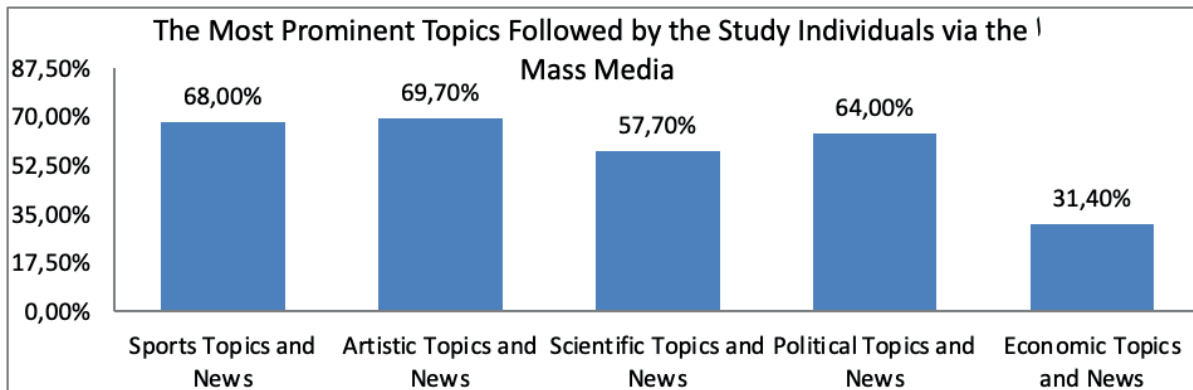


Chart no. (8): The Most Prominent Topics Followed by the Study Individuals via the Mass Media

The above chart shows that the most prominent subjects followed by the study individuals via the mass media as per the following order: 1. Artistic topics and news 69.7%, and it ranked first, sports topics and news 68.0%, which took the second place, political topics and news 64.0%, took the third place, scientific topics and news 57.7%, took the fourth place, economic topics and news, 31.4% took the fifth and last place.

Chart no. (9) Shows the Extent of Following News and Topics Relevant to Terrorism via the Mass Media

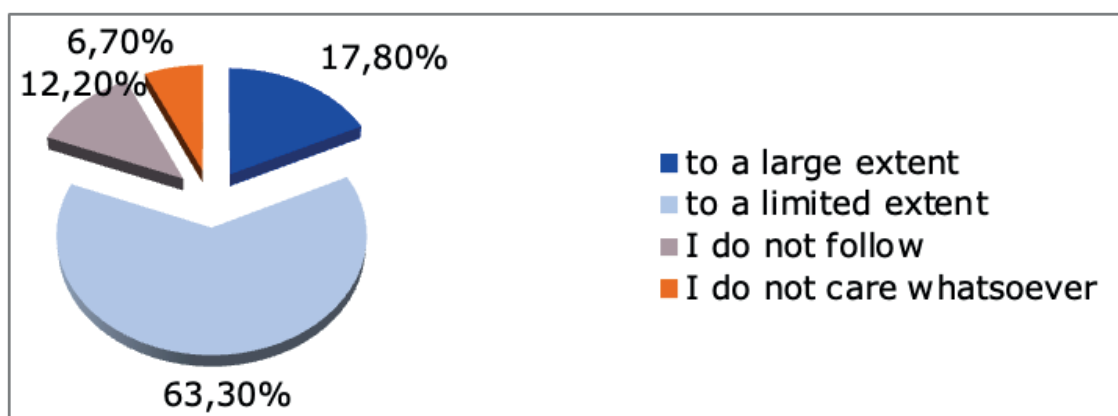
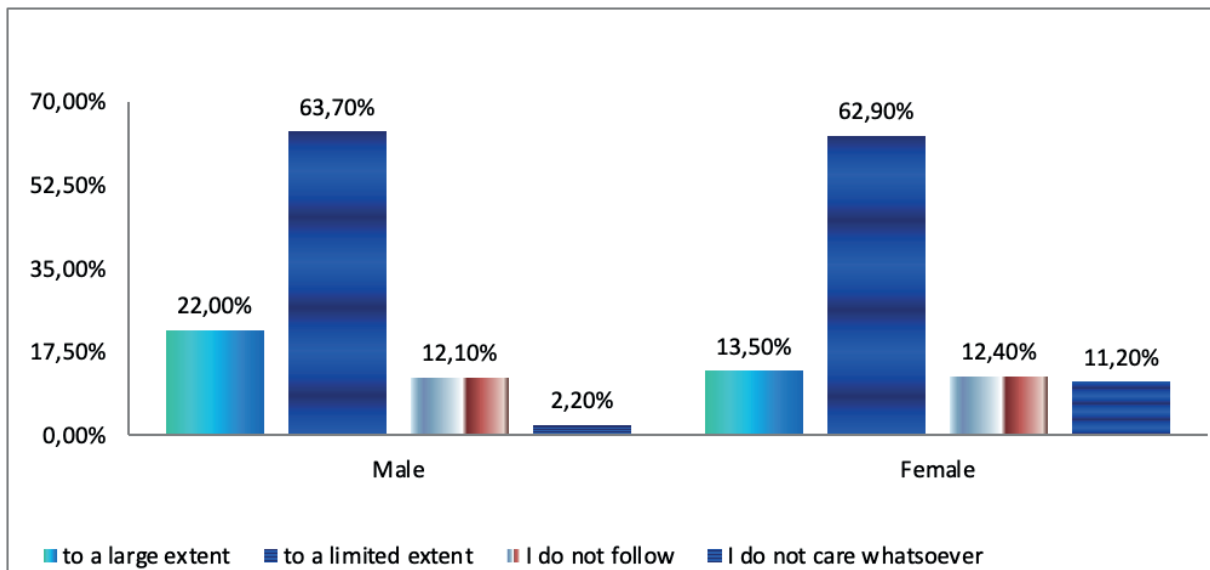


Chart no. (9): The Extent of Following News and Topics Relevant to Terrorism via the Mass Media

The previous graph shows the extent of the follow-up of news and topics related to terrorism via the mass media. It was found that most study individuals follow the news and topics related to terrorism via the mass media to a limited extent by 63.30%, 17.80% of them to a large extent, then 12.20% of them do not follow, and finally 6.70% are not interested in follow-up. This indicates that the media could not attract the sample individuals to follow the news and topics related to terrorism on the one hand, the indifference of the sample to follow these topics on the other hand because of their succession and the inability of communities to address them radically, causing the loss of the sample's hope to follow-up those topics permanently. The rate of those who follow these topics permanently reached 17.8%, which is a low rate compared to the topics presented by the mass media.



hart no. (10): The Extent of Following News and Topics Relevant to Terrorism via the Mass Media as per the Gender

Chart no. (10) Shows the Extent of Following-up News and Topics Relevant to Terrorism via the Mass Media as per the Gender

The Extent of Following-up News and Topics Relevant to Terrorism via the Mass Media as per the Gender

The previous graph shows the extent of follow-up of news and topics related to terrorism via the mass media as per the gender. It was found that 63.70% of males know to a limited extent, 22.00% to a large extent, 12.10% do not follow, 2.20% are uninterested. For females, 62.90% know them to a limited extent, 13.50% to a large extent and 12.40% do not follow, 11.20%. At the level of males and females, it was found that the rates of follow-up of these topics did not change compared to the overall follow-up among males and females. The percentage of males was 63.7% compared to 62.9%. There were no significant differences at 95 confidence level. This indicates that males and females are equal in terms of the type of their follow-up for topics related to terrorism

Chart no. (11) Shows the Extent of Knowing the Names of Terrorist Organizations in the Middle East Region

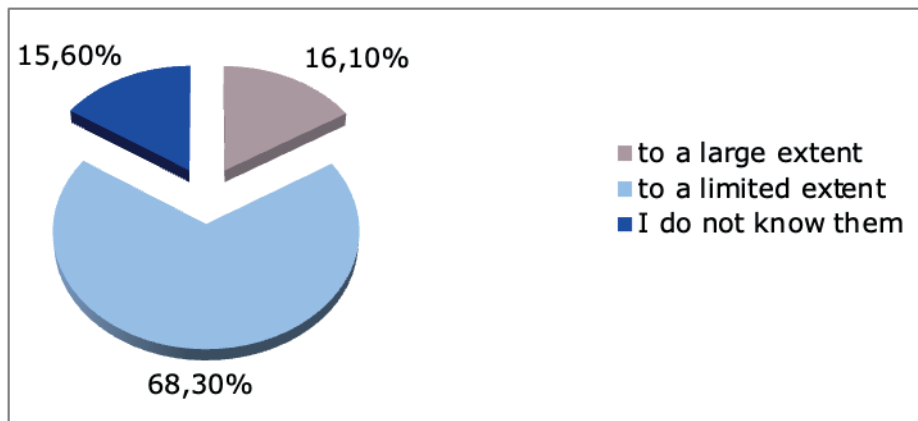


Chart no. (11): The Extent of Knowing the Names of Terrorist Organizations in the Middle East Region

The above chart shows the extent to which the study individuals know the names of the terrorist organizations in the Middle East. 68.30% of them know them in a limited manner, 16.10% know them to a large extent and 15.60% do not know them. It is also evident through the previous analysis that the sample individuals focused their knowledge on the names of terrorist organizations in the Middle East in a limited manner. This indicates that the media did not fulfill the right of this information in order for the public to have sufficient awareness and knowledge of the names of these terrorist organizations.

Chart no. (12): Shows the Extent of Knowing the Names of Terrorist Organizations in the Middle East Region as per the Gender

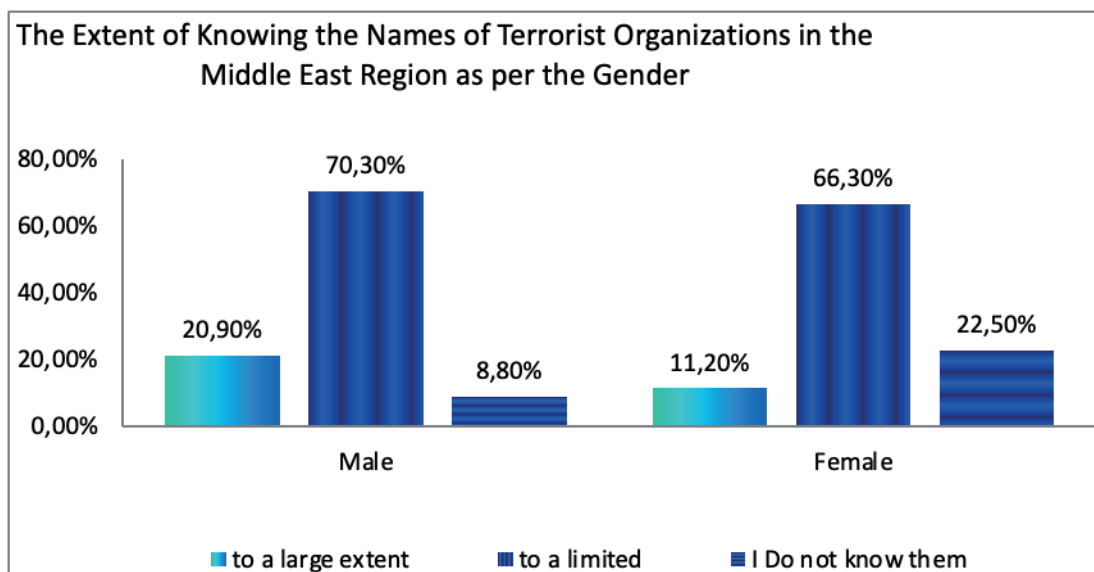


Chart no. (12): The Extent of Knowing the Names of Terrorist Organizations in the Middle East Region

The above figure shows the extent to which the study individuals know the names of terrorist organizations in the Middle East Region as per the gender, and it is evident that 70.30% of the males know them in a limited way, 20.90% know them to a large extent, and 8.80% do not know. For females, 66.30% of them are of limited knowledge and 22.50% do not know and 11.20% know them to a large extent. Also, at the level of males and females of different ratios

to identify the sample individuals with the names of terrorist organizations in the Middle East where they accept them to a limited extent.

The most prominent terrorist event that the study individuals were keen on following through the Arab media:

The events of September, the events of Turkey, the events of France, the attack on the mosques, the preaching and the Iranian occupation of Yemen, their support of the Houthi Militias, the attacks in Brussels, the bombing of mosques in Kuwait and Saudi Arabia, the assault on the Saudi embassy in Tehran, the events in Syria, the beginning of "Al-Qaida" presence, the extreme political parties and the Egypt Air Plane Crash.

Table no. (1) Shows to What Extent do the Arab Mass Media Play the Following Roles

Average	Extent of Role Performance						Phrase
	Never		Sometimes		Always		
	%	Q	%	Q	%	Q	
1.67	7.8%	14	51.7%	93	40.6%	73	Providing true information on the terrorist incidents.
1.76	10.0%	18	55.6%	100	34.4%	62	Providing accurate information on the terrorist incidents.
1.68	7.8%	14	52.8%	95	39.4%	71	Providing objective opinions about the terrorist incidents.
1.66	13.3%	24	39.4%	71	47.2%	85	Providing information, news and opinions about sources that support terrorism.
1.64	10.6%	19	42.8%	77	46.7%	84	Providing information, news and opinion about sources that condemn terrorism.

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	Extent of Role Performance						
Average	Never		Sometimes		Always		
	%	Q	%	Q	%	Q	Phrase
1.58	8.9%	16	40.0%	72	51.1%	92	Explaining the implications and impacts of the terrorist incidents in a clear and simplified way.
1.77	10.0%	18	56.7%	102	33.3%	60	Putting the terrorist incidents they deal with in a context that reveals all their dimensions.
1.65	7.2%	13	50.6%	91	42.2%	76	Seeking to present an image that implies repelling from terrorism and terrorists.
1.59	8.9%	16	41.1%	74	50.0%	90	Seeking to achieve general social harmony against terrorism and terrorists
1.71	11.1%	20	48.9%	88	40.0%	72	Seeking to ease the pressure and tension caused by terrorist events
1.59	8.3%	15	42.2%	76	49.4%	89	The news of terrorist events is published and broadcasted dramatically
1.71	10.0%	18	51.1%	92	38.9%	70	Seeking to take the lead in terms of terrorism news

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	Extent of Role Performance						
Average	Never		Sometimes		Always		
	%	Q	%	Q	%	Q	Phrase
1.98	20.6%	37	57.2%	103	22.2%	40	Covering (do not publish) terrorist events in the public interest
1.77	15.6%	28	45.6%	82	38.9%	70	The Arab media have succeeded in raising the awareness of young people about the dangers of terrorism
2.22	34.4%	62	53.3%	96	12.2%	22	Publishing details of terrorist events help to identify others in ways of terrorism
2.12	29.4%	53	53.9%	97	16.7%	30	Terrorist events are treated like other events
2.15	26.7%	48	61.7%	111	11.7%	21	Publishing articles and news that are considered as the unintended propaganda of terrorism
2.26	38.3%	69	50.0%	90	11.7%	21	Spreading panic and fear of terrorism by spreading news
2.02	23.9%	43	55.0%	99	21.1%	38	Helping terrorist groups attract new members

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	Extent of Role Performance						
Average	Never		Sometimes		Always		
	%	Q	%	Q	%	Q	Phrase
2.00	18.9%	34	62.8%	113	18.3%	33	Helping terrorist groups by publishing their statements, news, pictures, and demands
2.05	23.9%	43	57.2%	103	18.9%	34	Providing a means for terrorists to raise their demands and threats
1.99	30.0%	54	39.4%	71	30.6%	55	Helping terrorists get publicity and advertise themselves
2.02	32.8%	59	37.2%	67	30.0%	54	Taking into account the privacy and privacy of victims of terrorist operations in their news
2.00	32.8%	59	35.0%	63	32.2%	58	Affecting the public so that terrorist groups receive concessions from governments
2.10	30.0%	54	50.0%	90	20.0%	36	Do not confirm the mistaken views of terrorists
2.03	30.0%	54	43.3%	78	26.7%	48	Directing the public's concerns according to the terrorist agenda

Average	Extent of Role Performance						Phrase
	Never		Sometimes		Always		
	%	Q	%	Q	%	Q	
1.96	31.1%	56	34.4%	62	34.4%	62	Inciting the public against governments
2.03	31.7%	57	40.0%	72	28.3%	51	Inflating the power and capabilities of terrorists
2.07	27.8%	50	52.2%	94	20.0%	36	The repetition of Arab media scenes and images of terrorism lead to the consolidation of their stances.
2.02	27.8%	50	46.7%	84	25.6%	46	Arab media show terrorists as being the most gracious case owners
2.14	27.8%	50	58.9%	106	13.3%	24	Arab media lacks the ability to cover terrorist events from their positions
2.07	31.7%	57	43.9%	79	24.4%	44	Some Arab media focus on the events of terrorism for material interests
2.04	27.2%	49	50.0%	90	22.8%	41	Some Arab media focus on the events of terrorism for political interests

The above table shows to what extent the Arab media plays some roles related to terrorism and it has been shown that they always play the following roles, respectively:

Providing accurate information about terrorist incidents by 40.6%, providing accurate information on terrorist incidents 34.4%, providing objective views on terrorist incidents 39.4%, transmitting information, news and opinions on sources supporting terrorism 47.2%, transmitting information, news and opinions about sources condemning terrorism 46.7% The terrorist events that are dealt with in a context that reveals its full dimensions are 33.3% and seeks to convey a picture that distinguishes terrorism and terrorists 42.2% and seeks to achieve a general social agreement against terrorism and terrorists 50.0% and seeks to reduce the pressures and tension caused by terrorist incidents 40.0% c spread and broadcast terrorist news dramatically and 49.4% and seeks to achieve a scoop with respect to the news of terrorism 38.9% cover (for not doing newsworthy) for terrorist events of general interest of 22.2% and Arab media have succeeded in educating young people the seriousness of terrorism 38.9% and they rarely play the following roles:

It spreads terror and fear of terrorism by publishing 17% of the news, publishes details of terrorist events, helps to identify others in ways of terrorism, 12.2%, and publishes articles and news that constitute unintentional propaganda of terrorism. 11.7% Arab media lacks the ability to cover terrorist incidents from their websites. 20.0% of the Arab media and 20.0% of the Arab media focus on terrorist incidents. They provide a means for terrorists to raise their demands. And threats 18.9% and some Arab media focus on terrorist events for political interests 22.8% and direct the public's interests according to the terrorist agenda 26.7% and increase the strength and capabilities of terrorists 28.3%, helping the terrorist groups to attract new members 21.1%, not taking into account the privacy and sacred rites of the victims of terrorist operations in their news 30.0% and the Arab media show the terrorists are the best owners of the cause of 25.6% and help the terrorist groups by publishing their data, news, pictures and demands 30.6% Terrorist groups receive concessions from governments 32.2%, help terrorists get publicity 30.6% and incite the public against governments 34.4%.

Table no. (2): To What Extent do the Arab Mass Media Play the Following Roles: from the Perspectives of Males and Females

			Extent of Role Performance						Gender	Phrase
			Never		S o m e - times		Always			
Average Grade	Significant Value	Mann Whitney	%	Q	%	Q	%	Q		
90.43	.983	4043.000	4.4%	4	57.1%	52	38.5%	35	Male	Providing correct information on terrorist events
90.57			11.2%	10	46.1%	41	42.7%	38	Female	
88.80	.617	3894.500	6.6%	6	59.3%	54	34.1%	31	Male	Providing accurate information on terrorist events
92.24			13.5%	12	51.7%	46	34.8%	31	Female	
95.52	.142	3593.000	8.8%	8	57.1%	52	34.1%	31	Male	Providing objective views on terrorist events
85.37			6.7%	6	48.3%	43	44.9%	40	Female	

			Extent of Role Performance								
			Never		S o m e - times		Always				
Average Grade	Significant Value	Mann Whitney	%	Q	%	Q	%	Q	Gender	Phrase	
85.93	.192	3634.000	11.0%	10	37.4%	34	51.6%	47	Male	Transmitting Information, news and opinions about sources supporting terrorism	
95.17			15.7%	14	41.6%	37	42.7%	38	Female		
84.59	.089	3511.500	6.6%	6	41.8%	38	51.6%	47	Male	Transmitting information, news and views on sources that condemn terrorism	
96.54			14.6%	13	43.8%	39	41.6%	37	Female		
90.92	.903	4011.500	8.8%	8	40.7%	37	50.5%	46	Male	Explaining the implications and effects of terrorist events in a clear and simplified manner	
90.07			9.0%	8	39.3%	35	51.7%	46	Female		
92.74	.509	3845.500	8.8%	8	61.5%	56	29.7%	27	Male	Putting the terrorist events they deal with in a context that reveals its full dimensions	
88.21			11.2%	10	51.7%	46	37.1%	33	Female		
93.66	.356	3762.000	5.5%	5	57.1%	52	37.4%	34	Male	Seeking to convey a picture of alienation from terrorism and terrorists	
87.27			9.0%	8	43.8%	39	47.2%	42	Female		
88.20	.505	3840.500	8.8%	8	38.5%	35	52.7%	48	Male	Seeking to achieve general social harmony against terrorism and terrorists	
92.85			9.0%	8	43.8%	39	47.2%	42	Female		
88.43	.552	3861.500	9.9%	9	48.4%	44	41.8%	38	Male	Seeking to ease the pressure and tension caused by terrorist events	
92.61			12.4%	11	49.4%	44	38.2%	34	Female		
96.64	.074	3490.500	9.9%	9	47.3%	43	42.9%	39	Male	Publishing and broadcasting the news of terrorist events is published and broadcast dramatically	
84.22			6.7%	6	37.1%	33	56.2%	50	Female		
100.58	.003	3132.500	9.9%	9	63.7%	58	26.4%	24	Male	Seeking to take the lead in terms of terrorism news	
80.20			10.1%	9	38.2%	34	51.7%	46	Female		

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			Extent of Role Performance							
			Never		S o m e - times		Always			
Average Grade	Significant Value	Mann Whitney	%	Q	%	Q	%	Q	Gender	Phrase
93.32	.409	3792.500	16.5%	15	69.2%	63	14.3%	13	Male	Coverage (do not publish) about terrorist events in the public interest
87.61			24.7%	22	44.9%	40	30.3%	27	Female	
87.62	.414	3787.500	14.3%	13	44.0%	40	41.8%	38	Male	The Arab media have succeeded in raising the awareness of young people about the dangers of terrorism
93.44			16.9%	15	47.2%	42	36.0%	32	Female	
92.45	.573	3872.500	35.2%	32	54.9%	50	9.9%	9	Male	Publishing details of terrorist events help to identify others in ways of terrorism
88.51			33.7%	30	51.7%	46	14.6%	13	Female	
90.41	.978	4041.000	26.4%	24	60.4%	55	13.2%	12	Male	Terrorist events are treated like other events
90.60			32.6%	29	47.2%	42	20.2%	18	Female	
92.89	.471	3832.000	26.4%	24	65.9%	60	7.7%	7	Male	Publishing articles and news that are considered as the unintended propaganda of terrorism
88.06			27.0%	24	57.3%	51	15.7%	14	Female	
91.93	.680	3919.000	37.4%	34	54.9%	50	7.7%	7	Male	Spreading panic and fear of terrorism by spreading news
89.03			39.3%	35	44.9%	40	15.7%	14	Female	
96.13	.103	3537.000	24.2%	22	62.6%	57	13.2%	12	Male	Helping terrorist groups attract new members
84.74			23.6%	21	47.2%	42	29.2%	26	Female	
95.70	.116	3576.500	16.5%	15	74.7%	68	8.8%	8	Male	Helping terrorist groups by publishing their statements, news, pictures, and demands
85.19			21.3%	19	50.6%	45	28.1%	25	Female	
96.22	.094	3529.000	26.4%	24	60.4%	55	13.2%	12	Male	Providing a means for terrorists to raise their demands and threats
84.65			21.3%	19	53.9%	48	24.7%	22	Female	
92.25	.628	3890.500	27.5%	25	47.3%	43	25.3%	23	Male	Helping terrorists get publicity and advertise themselves
88.71			32.6%	29	31.5%	28	36.0%	32	Female	

			Extent of Role Performance								
			Never		S o m e - times		Always				
Average Grade	Significant Value	Mann Whitney	%	Q	%	Q	%	Q	Gender	Phrase	
87.41	.393	3768.500	29.7%	27	38.5%	35	31.9%	29	Male	Taking into account the privacy and sacred rites of victims of terrorist operations in their news	
93.66			36.0%	32	36.0%	32	28.1%	25	Female		
90.15	.924	4018.000	30.8%	28	38.5%	35	30.8%	28	Male	Affecting the public so that terrorist groups receive concessions from governments	
90.85			34.8%	31	31.5%	28	33.7%	30	Female		
94.06	.312	3725.500	31.9%	29	51.6%	47	16.5%	15	Male	Do not confirm the mistaken views of terrorists	
86.86			28.1%	25	48.3%	43	23.6%	21	Female		
87.60	.419	3785.500	26.4%	24	46.2%	42	27.5%	25	Male	Directing the public's concerns according to the terrorist agenda	
93.47			33.7%	30	40.4%	36	25.8%	23	Female		
88.59	.597	3875.500	27.5%	25	38.5%	35	34.1%	31	Male	Incite the public against governments	
92.46			34.8%	31	30.3%	27	34.8%	31	Female		
84.20	.081	3476.500	25.3%	23	42.9%	39	31.9%	29	Male	Inflating the power and capabilities of terrorists	
96.94			38.2%	34	37.1%	33	24.7%	22	Female		
88.13	.497	3833.500	25.3%	23	53.8%	49	20.9%	19	Male	The repetition of Arab media scenes and images of terrorism lead to the consolidation of his positions	
92.93			30.3%	27	50.6%	45	19.1%	17	Female		
81.71	.014	3249.500	17.6%	16	53.8%	49	28.6%	26	Male	Arab media show terrorists as being the most gracious case owners	
99.49			38.2%	34	39.3%	35	22.5%	20	Female		
87.93	.446	3815.500	25.3%	23	60.4%	55	14.3%	13	Male	Arab media lacks the ability to cover terrorist events from their positions	
93.13			30.3%	27	57.3%	51	12.4%	11	Female		
89.45	.769	3954.000	31.9%	29	41.8%	38	26.4%	24	Male	Some Arab media focus on the events of terrorism for material interests	
91.57			31.5%	28	46.1%	41	22.5%	20	Female		
88.32	.536	3851.000	27.5%	25	46.2%	42	26.4%	24	Male	Some Arab media focus on the events of terrorism for political interests	
92.73			27.0%	24	53.9%	48	19.1%	17	Female		

To study the statistical differences between males and females in terms of their point of view towards some statements that show the extent to which the Arab media has been using the statistical test of non-scientific Mann Whitney has been shown as follows:

There are no statistically significant differences between males and females in terms of their point of view towards some expressions that show the extent to which the Arab media is where the value of the P value is greater than 0.05:

- Providing accurate information about terrorist incidents, provide accurate information on terrorist incidents, provide objective views on terrorist events, and transmit information, news and views on sources supporting terrorism, and conveying information, news and views on sources that condemn terrorism. It explains the implications and effects of terrorist events in a clear and simple manner. In a context that reveals its full dimensions and seeks to convey a picture of alienation from terrorism and terrorists and seeks to achieve a social consensus against terrorism and terrorists and seeks to reduce the pressures and tension caused by terrorist events and publish and broadcast the news of terrorist events in such a way The Arab media have succeeded in educating young people about the dangers of terrorism, publishing details of terrorist events, helping to identify others in ways of terrorism, dealing with terrorist events like other events, publishing articles and news that are considered as unintentional propaganda of terrorism and broadcasting Panic and fear of terrorism as a result of its news, is helping terrorist groups attract new members and help terrorist groups by disseminating their statements, news, pictures and demands, and providing a means for terrorists to raise their demands and threats, For advertising themselves, does not respect the sanctity and the specifics of the victims of terrorist attacks in the news, affect the public in order to get terrorist groups concessions from governments, do not confirm the wrong views of terrorists, directs interests the public, according to the agenda of terrorists, inciting the public against governments.
- Inflating the power and abilities of terrorists, repeating the images and scenes related Arab to terrorism leads to the support of its stances, media lacks the ability to cover terrorist events from their positions, some Arab media focus on terrorist events for material interests, some Arab media focus on terrorism events to the interests of the Arab media. Political
- There are statistically significant differences between males and females in terms of their point of view towards some expressions that show the extent to which the Arab media is where the value of the P Value less than 0.05:
- Seeks to take the lead in the news of terrorism. This difference is due to males with an average grade of 100.58 and females of 80.20.
- The Arab media show terrorists as having a case. This difference is due to females with an average grade of 99.49 and males 81.71.

7. Conclusions and recommendations

The results of the study showed the following:

- Followed by the Internet with 83.9%, followed by the Internet with 83.30%, followed by Mobile Devices (87.20%), Mobile Devices (87.20%), Computers (47.8%), Television (32.2%) and Newspapers (4.4%). In order to reduce the exposure to traditional media.
- The results showed that the use of more than three hours for most of the media, where rates were respectively mobile devices and social media and the Internet (2%, 70.6%, 68.3%). And indicates the ability of these devices to attract the sample of the speed and spread in the community.
- The news and technical subjects were 69.7%, and took the first place, the news and the sports subjects 68.0%, the second place, the political news and subjects 64.0%, the third

place, the news and the scientific subjects, 57.7%, the third place, the news and the economic subjects.

- The results of the study revealed that the majority of the members of the study follow the news and topics related to terrorism in the media in a limited manner by 63.30%, 17.80% of them significantly, then 12.20% of them do not follow and 6.70% Not interested in follow-up. And this indicates that the media could not attract members of the sample to follow the news and topics related to terrorism on the one hand, on the other hand builds the indifference of the sample of these subjects because of their succession and the inability of communities to address them radically, which caused the loss of hope to follow up these subjects permanently. The proportion of those who follow these subjects permanently 17.8%, which is a small proportion of the comparison of the subjects presented by the media.
- The above chart shows how well the members of the study know the names of terrorist organizations in the Middle East. 68.30% of them know them in a limited way, 16.10% know them very well and 15.60% do not know them. It also shows that the members of the sample focused their knowledge on the names of terrorist organizations in the Middle East in a limited manner. This indicates that the media did not fulfill this information in order for the public to have sufficient awareness and knowledge of the names of these terrorist organizations.
- The results of the study showed that the study of the names of terrorist organizations in the Middle East by type of sex was found to be 70.30% of males and 20.90% of females. 22.50% do not know and 11.20% know it very much. And also at the level of males and females to different ratio to identify individuals with the names of terrorist organizations in the Middle East where they accept them in a limited manner.
- The results also indicate the extent to which the Arab media plays some roles related to terrorism. It has been shown that its most important roles are: to provide objective views on terrorist events, 39.4%, to transmit information, news and opinions about sources supporting terrorism, 47.2% Sources that condemn terrorism 46.7% explain the implications and effects of terrorist events in a clear and simple manner 51.1% and seek to convey a picture of repudiation of terrorism and terrorists 42.2% seek to achieve a general social agreement against terrorism and terrorists 50.0% and seek to reduce the pressures and tension caused by terrorist incidents 40.0% Dramatically and 49.4%
 - and that they seldom perform the following roles:
- 20.0% and some Arab media focus on terrorist events for material interests 20.0%, some Arab media focus on terrorist incidents for political interests, 22.8% And the terrorist organizations are recruiting 21.1% of the terrorist groups and do not take into consideration the privacy and privacy of the victims of the terrorist attacks. 30.0% of the news media and the Arab media show that the terrorists have the best interests and 25.6% By publishing their data, news, pictures and demands 30.6% and influencing the public for terrorist groups to obtain concessions from governments 32.2%, helping terrorists get publicity 30.6% and inciting the public against governments 34.4%.

Furthermore, the Study Recommends the Following:

The need to pay attention to the use of social media in the interest of terrorism issues and topics related to terrorism and terrorist organizations so that the public is aware of what is happening in the field of terrorism at the local and global levels.

- To work on, to provide the possibilities that help to employ these social means within the Arab universities, and to qualify students and teachers of the media to deal with these new means, and to promote the positive aspects of these means and avoid negative, and not only to use a certain means.

- Those responsible for the satellite channels in the state should assist the operators of these channels in the production of programs that deal with terrorism issues and combat them in an objective scientific manner.

Finally, the study recommends concentrating local satellite channels on programs that show the difference between the legitimate resistance and terrorism as well as the programs that show the tolerant image of Islam and the lack of linking terrorism, especially after the results of the study showed a lack of tendency of the sample members to follow satellite channels in relation to terrorism issues.

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SECTION: 4
MEDIA EDUCATION (SCIENCE)

Knowing through Metaphors: Metaphorical Devices from Science Communication to Science Education

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Abstract

Preparing students for life in an increasingly technical, complex, and global dimension is a relevant aspect of the current educational reform. To this end, international education researchers and practitioners are focusing on improving the persistence and success of students in scientific disciplines. The connections between Science Education and Science Communication, intended as a cultural activity that produces meaning about science, are receiving growing attention and have relevant educational potentialities. Scientific evidence shows that using metaphorical devices can improve learning processes involving scientific concepts (Amin, 2020; Fuchs *et al.* 2018). This contribution presents and discusses the research project "Knowing through metaphors". The project's central research hypothesis is that metaphorical-narrative teaching methodology, compared to traditional Science Education methodologies, is characterized by: a deeper understanding of scientific contents; the development of the ability to recognize implications and to activate new connections and easier access to scientific concepts for students with special educational needs. Such hypotheses were tested by developing experimental lesson plans that systematically use metaphors. The teaching models were implemented in six classes: two classes of the fourth grade (Primary School), two classes of the fifth grade (Primary School); two classes of the first grade (Middle School). For each grade, two parallel classes took part in the project. One acted as an experimental group, and the other as a control group. The emerging results suggest that the narrative-metaphorical methodology supports the long-term acquisition of the scientific contents and is more effective in activating new connections and supporting interaction. Finally, the presentation addresses the critical aspects that emerged from the research project.

Keywords: Metaphors, Communication, Science Education, conceptual innovation.

Introduction

Within the fields of Science Education and Communication, the role played by narrative and metaphors in fostering meaningful learning processes and conceptualizing new ideas is the subject of a growing number of studies¹. Such innovative perspectives refer to the theoretical bases developed within the so-called new wave in narrative and metaphor theory, that focus respectively on the complex cognitive operations implicated in creating and comprehending stories and on the inferential and conceptual processes involved in metaphor use and understanding. The necessity to enhance these and other innovative elements promoted by metaphor, such as the dynamics of transformation and reconfiguration of cognitive and normative meanings, is expressed in the recent scientific literature: in Steen's deliberate metaphor theory (2015); in Prandi's distinction between conventional and conflictual metaphors (2017); in Gola and Ervas' valorization of communicational aspects of metaphor (2016); in Amin's work on the role played by metaphor in the conceptual changes required in learning processes (2015), and in Kövecses' extended cognitive metaphor theory (2020).

On the one hand, these theoretical perspectives aim to enhance the relationship between the cognitive and the creative aspects of metaphor. On the other hand, they highlight the heuristic and innovative potential that metaphor can express within the linguistic and communicative dimension in which it is contextualized. Aesthetics, as a discipline, offers many contributions in this direction: firstly, Aesthetics has always underlined the innovative role that metaphors

1 Cfr. Cameron (2003), Zabel (2015), Contini (2013), Fuchs (2015), Ervas, Gola, and Rossi (2017).

promote, especially in poetic and literary discourse; secondly, it has always valued not only the conceptual aspects related to metaphors but also the linguistic ones, by addressing the issue of the existing relationship between metaphor, knowledge, and innovation; thirdly, it has always delved into themes that involved different disciplines². The field of Science Education offers an ideal space of intersection between cognitive and conceptual issues and a deepening of the aesthetic meaning of metaphor: both the relationship between the innovative and the knowledge-related aspects of metaphor and the role of language are very relevant aspects for the development of innovative Science teaching methodologies. In the new wave in narrative theory, narrative is no longer considered just a literary genre or a sequentially organized representation of events, but a complex tool for thinking (Herman, 2010). Drawing on these premises, Fuchs *et al.* (2018) underline the role played by the narrative context, and therefore by language, in the process of displaying the full cognitive and innovative power of metaphors:

“Narrative organizes image schemas, metaphoric projections, and conceptual and linguistic metaphors in terms of a network representing a sort of connective fabric. For this reason, the cognitive power of one metaphor depends on the way it is interconnected with the others and in how the thread is interwoven in the plot of the narrative”. (Fuchs *et al.* 2018, p. 100)

The new wave in narrative theory focuses on the cognitive aspects displayed to create and understand stories, showing how it can force readers to modify the interpretative models on which they have hitherto relied. The highlighted aspects were particularly relevant for the design of the experimentation described in this presentation, implemented within the research project “Knowing through metaphors³”. The design of the research, described in the following paragraphs, was therefore developed by paying particular attention to the narrative context in which the metaphorical devices were situated.

1. The Research Project “Knowing through metaphors.”

The project “Knowing through metaphors” consisted of several different actions. After the implementation of the philosophical and aesthetical analysis of the semantic and conceptual innovation of metaphors, briefly described in the preceding paragraph, the research group designed the empirical phase. The research group⁴ decided to focus on the narrative context in order to develop an approach that promotes the use of metaphors in Science Education and created two short narratives. The main reason that brought the research group to create short stories that focused on scientific contents is that narrative, as previously stated, is no longer considered just a literary genre or a sequentially organized representation of events, but a complex tool for thinking. In fact, complex cognitive dimensions are displayed in the process of understanding stories, showing how such process modifies readers’ interpretative models of reality. Therefore, the design of the experimental phase was not limited to the development of metaphorical schemes that were coherent from a scientific point of view. Instead, it aimed to contextualize such schemes within a complex narrative frame. The research group designed such a frame to guide the conceptual understanding of metaphors, extend their inferences, and encourage the production of new metaphorical devices.

In addition to the narrative aspect, during the design of the empirical phase particular attention was paid by the research group to the communicative context in which the metaphorical narratives would be presented to the students. The interdisciplinary composition of the research group allowed the development of narratives in which the correspondence between the subjects of the metaphorical utterance would be effective both from a scientific and a communicative point of view.

2 For a deeper analysis of these aspects, please refer to Contini (2017).

3 “Knowing through metaphors” is an interdisciplinary research project (referred to as “FAR”) funded by the University of Modena and Reggio Emilia and coordinated by the author of this contribution.

4 The interdisciplinary research group included the author of this contribution (Professor of Aesthetics), who coordinated the team, and other Professors and researchers of the University of Modena and Reggio Emilia: Tiziana Altiero, Professor of Biology; Roberto Guidetti, Professor of Biological Evolution; Maya Antoniotti, Professor of General Didactics; Dr. Andrea Pintus, and the post-doctoral fellows Alice Giuliani and Lorenzo Manera.

The empirical phase aimed to verify, through a quasi-experimental design, the research hypothesis at the base of the project: whether or not the use of metaphors and narrative supports the acquisition of complex knowledge through the development of skills such as knowing how to manage complex content, understanding complicated implications, and activating new associations between different areas of knowledge. A further aim of the experiment was to verify if the narrative-metaphorical methodology fosters the mid- to long-term memorization of scientific concepts and the student's original reworking of the latter. The learning model developed by the research group was also intended to verify the students' development of skills related to problem-solving/posing and critical thinking. Finally, through the research carried out, valuable data were collected to verify the hypothesis that the teaching methodology tested also supported more effective learning processes in students with special educational needs.

The following paragraphs describe the phases that characterized the design of the teaching model, the implementation of the experimental phase, and the main results that emerged from the data gathered.

1.1 The First Meeting of the Experimental Phase

Both the design and experimental phases involved six classes belonging to the same School based in Reggio Emilia. Students from six parallel classes took part in the experimental phase: two from the fourth year of the primary school, two from the fifth year of the Primary School and two from the first year of the secondary school.

In each grade, one class acted as an experimental group and the other as control group. For the fourth-grade classes of the Primary School, the topic addressed during the experimentation was the evolution. For the fifth-grade classes of the Primary School and the first-grade classes of the Secondary School, the topic studied during the experimental phase was the structure of the cell.

The fact that all the students involved in the experimental phase belonged to the same institution⁵ guaranteed a substantial level of homogeneity among the members of the experimental classes and the control classes, at least from the social and cultural points of view. In order to guarantee the absence of significant differences between the experimental and control classes in terms of previously acquired knowledge and level of comprehension of the texts, the researchers administered a pre-test during the first of the five meetings proposed for each class⁶. The results of the tests confirmed, for each pair of classes (control and experimental), the similarity of the starting conditions⁷ and the consequent comparability of the experimental data

1.2 The Second Meeting of the Experimental Phase

During the second meeting, an expert teacher engaged for the research project read and discussed, in the control classes, a traditional Science Education text⁸, centered either on the concept of natural selection or on the structure of the cell. In the experimental classes, the same teacher read and discussed the metaphorical narratives developed by the research group. In both cases, the interaction between the expert teacher and the students were based on texts characterized by a similar length and the absence of images to guarantee similar conditions for the experimental and the control classes.

The narrative created for the fourth graders of the primary school was centered on the concept of natural selection in the evolution theory, deepened through the metaphor of the tree of

5 The *Istituto Comprensivo* (Comprehensive Institute) "Leonardo Da Vinci", based in Reggio Emilia.

6 The meetings dedicated to the experimental activities took place between January 2020 and October 2020.

7 I.e., skills related to the comprehension of narrative texts and the existing knowledge related to the topic of the experiment (either the evolution theory or the structure of cell).

8 All the texts have been validated by members of the research groups.

life. In the story, titled “Gea, the young whale”, the tree of life is represented by a real coral tree, directly observable and explorable.

The plot chronicles the journey of a blue whale named Gea, who is looking for explanations about her origins. In the journey, Gea is accompanied by her grandfather to explore a large tree with many branches that intertwine and stretch up and in all directions. By exploring the tree, Gea begins to understand the process that drove the evolution of many different species that preceded her:

Gea: is this a tree? Like the ones you find on islands?

Gea’s grandfather: I didn’t think you had ever seen one! This is a special tree, different from all the others. It is very, very old...much older than me! It took it millions of years to become the way you see it now.

It slowly grew into a trunk, which gradually split, generating the branches that are now bigger; these, in turn, have generated other branches, which become thinner as they go upwards.

Gea: And all those tiny green dots...what are they?

Gea’s grandfather: Those tiny green dots are called leaves. Take a good look at them, Gea! Even though they belong to the same tree, they’re not the same! We can say that they are similar and yet different! Some are big and open, some are small and closed, and some are emerald, green. However, as we climb higher, the branches become thin, and the leaves are lighter and smaller. They are all are part of the great tree of life¹⁰.

This excerpt allows us to analyze one of the many metaphors contextualized in the story. In this case, the analogic correspondences concern the characteristics of the tree of life and the aspects that define the species evolution theory.

Table 1. Examples of analogic correspondences emerging from the evolution-tree of life metaphor.

Species evolution	Tree of life
Originated from small organic molecules	Originates from something small (seed)
The species become more numerous over time	The branches become more numerous over time
Species can become extinct	Branches can break off
Each individual of a species is similar but unique	Leaves are similar but all different
Evolutionary events are not predictable	Each branch takes an unpredictable direction

The encounter with the ancestors that takes place during the journey highlights two further concepts. Firstly, the idea of continuity with the past is enhanced by highlighting the similarity of contemporary individuals to certain qualities of distant ancestors. Secondly, the awareness that there are variations, ruptures, and discontinuities¹¹.

The narrative created for the fifth graders of the primary school and the students of the first grade of the middle school involved in the project was centered on the structure of the cell.

⁹ The story is inspired by Dixon and Bailey (2018).

¹⁰ Excerpt from the story “Gea, the young whale”, created by the research group.

¹¹ For example, attention is drawn to an “anomalous” characteristic that becomes an evolutionary advantage and thus replaces previous characteristics over time, setting the conditions for a species renewal.

In the story, titled “Welcome to Ellulandia!”¹², the Science teacher takes his students to a special room in the school, where they find a microscope that becomes the gateway to a fictional world, called Ellulandia¹³, that can be visited with a submarine. While exploring the fictional world of Ellulandia, the students meet several characters, and while the teacher explains what is happening, they begin to understand several aspects of the structure of the cell, such as the role performed by enzymes:

Teacher: Here in Ellulandia, there are so many enzymes, billions and billions. There are many types, and each one can do something different from the others... but not only! They perform their actions quickly and precisely: just think that each enzyme can perform up to a thousand actions every second.

Student: This means that they are... robots!

Teacher: Well, let’s say that they look like robots...but they are not made of iron and circuits, but of a different material, a “biological” material. They are bio-robots¹⁴.

In this excerpt, the analogic correspondences concern the characteristics of the enzymes and the biorobots, which are analyzed in the following table¹⁵.

Table 2. Examples of analogic correspondences emerging from the enzymes-bio-robot metaphor.

Enzymes	Biorobots
Enzymes are degradable	Biorobots are biodegradable
Follow the instructions of the DNA	Follow the instruction of the programmer
Enzymes are very efficient in the catalytic process	Biorobots are very efficient in performing the actions they’re programmed for

By reading and discussing the narratives together, the young students involved had the possibility to engage with the metaphors actively and critically. Both in the experimental and the control classes, the expert teacher who conducted the meetings interspersed the exposition of the text contents with moments of reflection and re-elaboration, aimed to support the students’ involvement¹⁶.

1.3 The Third Meeting of the Experimental Phase

The texts were read and discussed in all the classes involved during the second meeting and the first part of the third meeting. In the second part of the third meeting, the expert teacher administered the post-tests to the students. The post-tests, designed by the research group, consisted of a mix of multiple-choice questions and open-ended questions. For the fourth graders, questions focused on the topic of the Evolution Theory. For the students of the fifth grade of the Primary School and the students of the first grade of Secondary School, the questions

12 The story is inspired by Monaco and Pompili (2012).

13 The fictional world visited by the characters in the story is intended to simulate the function of a theoretical model built to discover what the cell looks like and how it works.

14 Excerpt from the story “Welcome to Ellulandia!”, created by the research group.

15 Several other metaphorical devices are present in the story, suggesting analogic correspondence between a fortress and the nucleus of the cell, the structure of the mitochondria and a power plant, the role played by the DNA and the role of staff chief, the membrane of the cell and the border of Ellulandia.

16 An external observer recorded all the experimental activities with a video-camera and audio recorder, to allow a qualitative analysis of the interaction that occurred during the meetings.

focused on the structure of the cell¹⁷. The tests were intended, on the one hand, to verify the acquisition of new knowledge and on the other, to examine the students' ability to re-elaborate the contents. In order to test this ability, the last part of the tests contained questions such as: "How would you explain the Evolution Theory / the structure of the cell to a friend of yours who has never heard of it?". The research group also analyzed the answers to these questions to identify the use of new metaphors in the students' explanation of the content, which will be discussed in the paragraph dedicated to the tests results.

1.4 The Fourth and Fifth Meetings of the Experimental Phase

For all the classes involved in the research, the fourth meeting included a workshop dedicated to a further reinterpretation of the contents presented during the previous meetings. The research group designed the workshop based on the STEAM Education paradigm (De la Garza & Travis 2019). This paradigm involves the interweaving of logical-scientific and artistic-symbolic languages, an intentional and designed use of the materials available to students. It is based on the opportunity to think critically about and truly understand conceptual content.

Because of the suspension of in-presence teaching due to the spread of COVID-19, the experimental and the control classes of the Secondary School participated in the workshop in-person. During the workshop, the students worked in small groups of four-five members. The teacher provided each group of students with drawing materials and asked each group the answer the question "How would you represent the structure of the cell to a friend of yours who does not know it?". Due to the Covid-19 pandemic, for the fourth and fifth graders of the Primary School the workshop was organized online. The teacher asked the students to create a drawing related to the content presented during the previous meetings. In particular, the teacher asked the fourth graders to create a drawing linked to the question: "How would you represent the Evolution Theory to a friend of yours who has never heard of it?". In the workshop for the fifth graders, the teacher asked the students of the fifth-grade classes to create a drawing linked to the question: "How would you represent the structure of the cell to a friend of yours who does not know it?".

During the fifth meeting, which took place via videoconference two months after the workshop, the teacher administered a follow-up test to the students. The follow-up test had the same structure of the post-test, and its purpose was to collect data on the differences between the students in the experimental and control classes in terms of long-term knowledge acquisition. The research group gathered further data on the long-term knowledge acquisition related to the topic of the experimentation by administering a second in-person follow-up test five months later¹⁸.

2 The Results of the Experimental Phase

2.1 The Results of the Experimental Phase in the Middle School

Several interesting aspects emerge from the quantitative and qualitative analysis of the data gathered through the tests administered in the first-grade classes of the Middle School. Firstly, we notice that on the pre-test, the experimental and control class students did not show relevant differences in terms of pre-existing knowledge¹⁹. However, if we look at the post-test results, we can see a significant difference between the results obtained by the experimental and the control classes in their responses to the questions about the parts of the cell.

¹⁷ The control class of the fifth grade, due to the suspension of teaching activities in presence related to the Covid-19 pandemic, held the third meeting via videoconference.

¹⁸ The research group proposed the second follow-up test only to the former fourth graders and first graders, as the fifth graders had moved to the Middle School.

¹⁹ The difference between the scores reached in the experimental and control class in terms of correct answers does not overcome the 15%.

Table 3. Percentage of the students who answered correctly to the post-tests open-ended questions

The topic of the question	Percentage of the students who answered correctly in the experimental class	Percentage of the students who answered correctly in the control class
Structure of the cell	96%	96%
Ribosomes	38%	12%
Cell membrane	71%	58%
Mitochondria	42%	27%
Enzymes	58%	35%

Secondly, in the analysis of the answers to the open-ended question, the research group considered the presence of metaphors in the answers provided by the students of the experimental class²⁰. The analysis showed that a significant percentage of students (40%) used metaphors²¹ in at least one of the answers. In the answers to the question concerning the structure of the cell, the metaphor of the planet was the prevalent one. Instead, in the description of the cell membrane, presented in the narrative through the metaphors of “skin” and “border”, in the answers to the question was described by using the concepts of “cover”, “protection” or “filter”. Other metaphors emerged in the answers: the cell membrane was also associated to the image of a “protective shield”, and to the earth’s crust, a further articulation of the planet model. In the answers to the question concerning mitochondria, the metaphors used were inspired by the one already presented in the narrative, which described them in terms of batteries. In the answers to the question concerning enzymes, on the one hand emerged the metaphor of the specialized workers, already present in the narrative. On the other hand, new connections emerged, for example in the answers in which the enzymes were presented as wound-healers or handymen.

If we consider the presence of metaphors in the experimental class follow-up tests, the element that emerged from the analysis is that the students used fewer metaphors to answer the question and instead provided more descriptive information. For example, in the question related to enzymes²², the percentage of students in the experimental class who used metaphors in the post-test was 82%, in the follow-up test 17%. At the same time, the percentage of students who responded to the question in the experimental class corresponded to 85%, while in the control class only 59% of the students responded. This element suggests that despite the decrease in the use of metaphors in the follow up-test, the information processed through the metaphorical-narrative methodology was maintained in the medium term. If we consider the second follow-up test, administered six months after the first, what emerged is that the 14% of the experimental class provided poor or wrong answers²³. In the control class, the percentage of students who provided poor or wrong answers was 50% of the students, a further element suggesting the efficacy of the metaphorical-narrative methodology for the acquisition and retention of knowledge.

20 In the answer provided by the control classes, only very few metaphors emerged, as the teacher read and discussed with them a traditional Science Education textbook.

21 For the identification of metaphors, the research team adopted as a reference the generic definition of metaphor proposed by Lakoff and Johnson (1980, p.5), intended as “understanding and experiencing one kind of things in terms of another”.

22 “What are enzymes, and what is their role?”

23 A further relevant element is that the two students of the experimental class with special educational needs provided correct answers, suggesting the efficacy of the experimental methodology from an inclusive point of view.

2.2 The Results of the Experimental Phase in the Primary School

As anticipated, during the experimental phase the fifth graders of the Primary School, like the Middle School students, examined the topic of cell structure. The analysis of the pre-tests showed that the students of the experimental and the control class did not show relevant differences in terms of pre-existing knowledge. Due to the suspension of teaching activities related to the Covid-19 pandemic, the teacher administered the post-test and the follow-up to the control class via videoconference, and only very few students were present. For this reason, we will consider only the results of the experimental class, by comparing the data collected from the pre-test and the post-test²⁴, both administered in person.

Table 4. Comparison between the results of the pre and post-tests of the Primary School experimental class

Topic of the question	Percentage of the students who answered correctly in the pre-test	Percentage of the students who answered correctly in the post-test
Cell membrane	33%	65%
Mitochondria	18%	71%
Enzymes	6%	86%

By comparing the data from the pre-test and the post-test, on the one hand we can see an improvement on each item of the test. On the other hand, an aspect that stands out is that more than 50% of the students responded correctly to the questions in the post-test. This element suggests the efficacy of the experimental activities in terms of acquired knowledge. Regarding the presence of metaphors in the answers provided by the students of the experimental class, most of them were related to the cell membrane or the enzymes. For example, the cell membrane was described using the checkpoint metaphor, and the enzymes were described in terms of guards or handymen.

Further metaphors emerged from the drawings that the fifth graders of the experimental class created during the workshop, which took place online two and a half months after the post-test. The teacher asked each student to create a drawing linked to the question: "How would you represent the structure of the cell to a friend of yours who does not know it?". In the example that follows, we can observe how the different elements of the cell are represented metaphorically.

In addition to the creation of the drawing, the teacher asked the students to provide an explanation of its contents. In the explanation of the drawing shown above (Figure 1), the student wrote:

"In this drawing I tried to represent how I imagine the cell. On the outside I drew the cell membrane. I imagined it as a wall, with doors at the bottom and top where only the necessary substances and organisms can enter. Inside the cell membrane there is a gelatinous sea, the cytoplasm. In the sea, we can find islands representing the mitochondria, where the energy distributed to the whole cell, called ATP, is produced (which I imagine as a battery).

Furthermore, inside the cytoplasm I have drawn some boats with enzymes on them, which I imagine as handymen that move from one part of the cell to another by rowing. At the center of the cell, finally, we can see the nucleus. It is protected from the sea, and hosts the DNA, which I imagine as the king of the cell".

²⁴ The follow-up test was also delivered online in the experimental class. Only a few students participated, preventing a comparative analysis with results of the post-test.



Figure 1. Drawing of the cell structure created during the workshop by a fifth-grader in the experimental class. The cell membrane is represented as a wall, the cytoplasm as a gelatinous sea, the mitochondria as small islands, the ATP as batteries, the enzymes as rowing handymen, and the DNA as a King.

If we consider that the workshop was proposed two and a half months after the metaphorical story was presented and discussed with the students, the drawing is a further element suggesting that the narrative-metaphorical methodology both supported the long-term acquisition of knowledge, and fostered personal and creative reinterpretations of the contents.

For the fourth graders of the Primary School, the experiment addressed the topic of Evolution. The results of the pre-tests showed that the students in the experimental and control classes did not show differences in terms of pre-existing knowledge, an element that strengthens the significance of the data gathered from the analysis of the post-tests.

Table 4. Percentage of the students who answered correctly to the close-ended questions of the post-test

The topic of the question	Percentage of the students who answered correctly in the experimental class	Percentage of the students who answered correctly in the control class
Tree of life	63%	33%
Extinction	47%	71%
Natural selection	36%	14%

The results of the post-test show that the students of the experimental class performed better in the post-test. A critical aspect regards the fact that the results show that in both the experimental and the control class the percentage of students who responded correctly is not high, an aspect probably due to the complexity of the topic addressed and the short time available for the presentation and discussion of the contents²⁵. Other relevant elements of interest concern the results of the follow-up test administered six months after the post-test. In the follow-up test, the percentage of students who responded correctly remained similar, an element that suggests the long-term knowledge acquisition related to experimented method-

²⁵ This aspect is confirmed by the analysis of the open-ended questions of the texts.

ology. Furthermore, in the experimental class two of the four students with special educational needs responded correctly to the questions. In the control class, only one of the five students with special educational needs responded correctly, a further element suggesting the inclusive dimension of the narrative-metaphorical methodology.

2. Conclusive remarks

From the results of the quantitative and qualitative analyses conducted it is possible to outline several elements of interest. Firstly, from the data gathered, the narrative metaphorical methodology applied in the experimental classes supported a deeper understanding of complex concepts. In fact, by reading and discussing the narratives together, the young students involved were able to engage with the metaphors actively and critically, reprocessing the scientific information addressed in the narrative. Secondly, if we compare the results of the experimental classes with those of the control classes, we notice that the narrative-metaphorical methodology better supported both the long-term acquisition of the information and the inclusion of the students with special educational needs. Thirdly, the research results indicate that metaphors, when contextualized within narrative structure that facilitates their understanding and guides their implications, support the development of critical thinking. Finally, the results of the experimental classes, compared to the classes where traditional Science Education textbooks were used, suggest that the metaphorical narratives are more effective in activating new connections and supporting interaction.

Despite these promising results, some problematic features need to be underlined. In fact, the data gathered refer to a limited number of classes that took part in the research project. To further prove the efficacy of the experimented methodology, a larger data set would need to be gathered and analyzed. A further critical aspect concerns the design of the narratives, which ideally should integrate scientifically valid information with the elements that add an element of aesthetic pleasure²⁶. To foster the dimension of aesthetic pleasure in the stories, the research group included elements such as the complexity of the characters, surprising events, and suspenseful situations. Nevertheless, further efforts need to be made in order to make the narratives more compelling. A challenge for future experimental projects consists of designing stories that are both scientifically valid and aesthetically pleasing. To achieve this goal, the integration of Sciences and Humanities is of the utmost importance.

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The Engagement of Teachers and Students in E-Learning Environment: Digital Interactive Storytelling in Mathematics

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Abstract

This paper presents the preliminary results of an experimental work conducted on the Digital Storytelling in Mathematics, as part of the project Prin 2015 “Digital Interactive Storytelling in Mathematics: a competence-based social approach”. An activity designed for promoting the critical mathematical thinking among the students that foresees them to participate as active protagonists and as observers of the protagonists during the problem solving activity, will be illustrated and examined from a numerical analysis point of view. In particular, the interactions will be investigated using a Matlab software for solving the seriation problem.

Keywords: Mathematics education, Digital Storytelling, e-Learning, engagement, complex network, seriation problem

Introduction

In this paper we present some results of the project PRIN 2015¹ “*Digital Interactive Storytelling in Mathematics: a competence-based social approach*”, which aims at defining a social-constructivist methodology for the competence-oriented teaching of mathematics, named DIST-M (Digital Interactive Storytelling in Mathematics). The instructional design is based on collaborative scripts (King, 2007; Kobbe et al., 2007) which involve a sequence of Vygotskian tasks (Vygotsky, 1980), embedded in a framework of digital storytelling. The methodology involves interaction among peers (Albano et al., 2016) on Moodle e-learning platform, appropriately integrated with other semiotic mediators (Albano & Dello Iacono, 2019).

1. Theoretical Framework

In line with a Vygotskian approach based on the social and individual construction of knowledge, the aim is to promote the development of argumentative and communicative skills. According to Sfard (2001), thought is a form of communication and languages are not just couriers of pre-existing meanings, but they are builders of meanings themselves. Learning thus becomes the participation in a particular discourse which is the “mathematical discourse”. Writing is, as considered by Radford (2002), a semiotic tool of objectification, used by individuals in social processes production of meanings, to achieve a fixed form of awareness, to make explicit and visible their thoughts and to perform actions.

The virtual community established among the participants of the Moodle project, evolves into a learning community. The learning process is interpreted as a social way of changing the participation from peripheral to a community practice involvement. This learning standpoint and the collaborative learning (Pesci, 2004) complement each other even if the interaction roles of equals are not a priori established. In the presented case study, students and teachers are engaged in a suitable designed online activity, where the interactions among students and students-teacher are well organized. The organization of the activity foresees that the stu-

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dents play taking the role of actor or of observer (Albano et al., 2020). Nevertheless, “the very subject of learning is transformed from isolated individuals to collectives” (Engeström, et al. 2010). Thus learning does not depend on a single role and the related actions, but on the whole group, as a system.

We analyze, by means of suitable tools, the interactions among the peers and with the expert, in particular considering the involvement/ participation of the students, in order to carry out a Social Network Analysis. In particular, we refer to the students who played the roles as observers. The analysis has been done using techniques and methods of the graph and complex network theory within a numerical analysis framework (Concas, 2020). In particular, the data extrapolated by analysing the interactions in the chat used by the students, have been examined by using a Matlab toolbox for solving the seriation problem. In this framework, the seriation problem consists in finding an ordering of the set of considered units, which represent the students in a specific group according to a given correlation function so that elements with higher similarity in the behaviour are close to each other in the resulting sequence obtained by applying a toolbox recently developed in Matlab (Concas et al., 2019).

So, the Research question that we tried to answer in this work is the following: How might the analysis of complex networks be fruitful in a DIST-M environment?

2. The Methodology

The schema for the entire DIST-M activity involves several phases.

The first phase is the *exploration* phase, which aims to produce a concise description of what has been observed. The description must then be refined in the second phase in order to obtain an utterance that serves as a *conjecture*. The utterance, initially in verbal language, may not be adequate to lead to a proof. Therefore, in the third phase, it needs to be manipulated in order to arrive at its appropriate *formalization*. From this, in the fourth stage, students are asked to identify and organize the arguments into an appropriate deductive chain, justifying each step of the deduction, in order to construct the *proof*.

In the last phase, *reflection* is required, both as an evaluation on the cognitive level -students have to read again the story from the mathematical point of view- and as a self-assessment, on the metacognitive and affective level -each student is asked to think about the roles played as an “actor” or as an “active observer”-.

In the following subsections we illustrate the design of the digital interactive storytelling and the numerical model used for the social network analysis.

2.1 The Design

The instructional activities take place in the context of a narrative, in a situation that aims to be engaging and familiar to the student. The story evolves over time and each student is a character in the story (Albano et al., 2019). Personal and group interaction is moderated by the teacher playing herself a character in the story. As the narrative progresses, the story evolves in accordance with the characters’ interaction with it.

The genre chosen was that of science fiction, which sees a group of four friends Marco, Clara, Federico and Sofia engaged in the challenge of communicating with the aliens from whom they had received some mysterious messages made of numbers and operations. Alongside the friends, there is also an adult, who is the avatar of the teacher/tutor and acts as an expert in the learning path.

The story is organized in 5 episodes, where students play as characters: Marco (the Boss) is the leader of the group and takes care to organize the tasks among his peers; Clara (the Pest) intervenes by posing doubts and question about the mathematical problem; Sofia (the Blogger) loves writing and takes care to summarizes the answers shared by the group; Federico (the Promoter) proposes new ideas and paths to follow. They are given a role (which changes from one episode to the other) and some actions to perform, according to the role the students are playing in that episode. Some tasks are individual, some others are collaborative and there-

fore require a good grade of communication and coordination (students can talk to each other in a chat). In order to allow all students to play within the story, we arranged them in teams of 4 members (one for each of the above characters). In each episode, only one team is actively involved within the story and each member plays a different character; they can interact among themselves and with the story. In the meantime, the members of the other teams play as Observers, each member of a team observing a different character. These are actively involved in taking notes in their personal logbooks, reporting how (and how well) the observed active character performed. In the subsequent episode, another team becomes active and all the roles are switched in turn. In this way all students will experience all roles and all activities of the story, though not always as an active player.

2.2 The Numerical Model

From a numerical point of view, this paper is related to an application of seriation to the social network analysis and in particular for analyzing the roles played by students in the digital interactive storytelling pilot project described above. Seriation is a fundamental combinatorial ordering problem, asking to find the best enumeration order of a set of units, according to a given correlation function, so that elements with higher similarity are close to each other in the resulting sequence. The desired order can be characteristic of the data, a chronological order, a gradient or any sequential structure of the data. We will state the seriation problem from the mathematical point of view by considering it as the arrangement of units in a sequence according to a “similarity” function.

The concept of seriation has been formulated in many different ways and the seriation problem, along with seriation methods and algorithms, emerges and finds application in a wide range of contexts spanning from archaeology, anthropology, to genomics and DNA sequencing, and, within mathematics, from complexity theory to combinatorial optimization, graph theory and operational research. The interested reader can find an overview on the context and application of seriation in Concas et al. (2019) and references therein. The concept of seriation first arose in the archaeological field; see Piana et al. (2005) for a review on the seriation problem in archaeology with a mathematical perspective. In all the applications, seriation data are usually given in terms of a matrix, called data matrix, whose rows or columns (or both) represent the elements to be ordered. Considering the application in this research project, the rows of the data matrix represent the participants while the columns represent the features divided, as explained below in detail, into principal and secondary features. Each player is characterized by the role she plays in the considered episodes and by the participation in terms of messages written on chat.

This data matrix will be hereafter named *adjacency matrix* since it describes a bipartite graph which allows us to define the interrelationship between the units/roles we want to rearrange according to the observed variables.

Bipartite graphs, also called “two-mode” networks in the sociology literature, represent the membership of nodes in groups. Indeed, a graph is bipartite if its vertices can be split into two disjoint subsets such that only edges between nodes belonging to different sets can occur. In our application, the adjacency matrix A describes the connections between the participants and the considered features, i.e., it is obtained by setting $a_{ij} = 1$ if player i presents features if type j , 0 otherwise.

In case of elements, $a_{ij} \neq 1$, then A is usually called an abundance matrix. In this case every entry represents the relative frequency or the number of features (role played) related to the considered player.

The first mathematical definition of seriation was based on the construction of a symmetric matrix S known as similarity matrix, where the element S_{ij} describes, in some way, the likeness of the nodes $i, j \in U$ representing two units (i.e. participants in our framework). One possible definition of the similarity matrix is through the product $S = AA^T$, being A the adjacency matrix of the considered problem and the superscript T denotes the transpose. Even in the presence

of abundance data, the matrix we will consider as an adjacency matrix describing the case study will be binary and constructed by setting equal to 1 every non zero entry. In the similarity matrix the largest value on each row is the diagonal element, which reports the number of variables associated with each unit/participant. By permuting the rows and columns of S in order to cluster the largest values close to the main diagonal, one obtains a permutation of the corresponding rows of A that places the people similar in behavior closer to each other.

In this paper, a particular case study for a seriation problem will be studied by using a Matlab toolbox described in Concas et al. (2019). In particular, we applied the toolbox with the aim of validating the method in a didactical research setting. The software contains an implementation of a spectral algorithm, the solution of the seriation problem based on the use of an eigenvector, called Fiedler vector and associated to the smallest non-zero eigenvalue, called Fiedler value of the Laplacian matrix of the similarity matrix associated with the problem. The algorithm, by using the sorted entries of the Fiedler vector, returns a classification of the ordering permutations in terms of a compact data structure called PQ-tree described below. The package, named PQser toolbox, also defines a data structure to store a PQ-tree and provides the Matlab functions to manipulate and visualize it. The detailed description of the spectral algorithm is skipped here for the sake of brevity, but the interested reader can refer also to Concas (2020).

A PQ-tree is a data structure used to encode a family of permutations of a set of elements and to solve problems connected to finding admissible permutations according to specific rules. A PQ-tree T over a set $U = \{u_1, u_2, \dots, u_n\}$ is a rooted, ordered tree whose leaves are in one-to-one correspondence with the elements of U and their order gives a reordering of the elements of the considered set. The internal (non-leaf) nodes of T are distinguished as either P-nodes or Q-nodes. The only difference between them is the way in which their children are treated and can be reordered. Namely, for a P-node, its children may be arbitrarily permuted so all the possible permutations of the children leave are permitted; for a Q-node only one order and its reverse are allowed since the children leaves can be only reversed. The root of the tree can be either a P or a Q-node. We will graphically represent a P-node by a circle, and Q-node by a rectangle. The leaves of T will be displayed as triangles, and labeled by the elements of U . The frontier of T is one possible permutation of the elements of U , obtained by reading the labels of the leaves from left to right. Hence, a PQ-tree represents in a compact way permutations of the elements of a set through admissible reorderings of its leaves. Each transformation specifies an allowed reordering of the nodes within a PQ-tree. For example, a tree with a single P-node represents the equivalence class of all permutations of the elements of U , while a tree with a single Q-node represents both the left-to-right and right-to-left orderings of the leaves. A tree with a mixed P-node and Q-node structure represents the equivalence class of a constrained permutation, where the structure of the tree determines the constraints on the admissible permutations. A package for representing and manipulating PQ-trees is contained in the PQser toolbox. The number N of all the admissible permutations generated by the algorithm can be obtained by counting all the admissible boundaries of the tree. In this framework, we use the PQser toolbox for finding all the admissible reordering of the units, i.e. the people involved in the considered pilot project on the basis of their behavior studied through the chat they used during the trial.

3. The Case Study

The pilot trial analysis in the framework considered the data of January 2020². The group of the participants to this project is composed of 26 students and the teacher who assumed the role of a mediator in the group formed of four students who play the actors role. The four principal roles, assigned to the students who are actors, are of the Pest Clara, the Blogger

² The activity was carried out in the classroom during one hour of the usual mathematics lessons. The data of the student actors' and teacher's chats are reported following the temporal order that the Moodle platform provides.

student who play the first role, i.e., the pest, since the element $a_{1,1} = 1$. This student interact with the others 18 times (principal interactions, i.e., regarding the mathematical problem) since $a_{1,26} = 18$; the fact that $a_{1,27} = 8$ indicates that the student, who plays the pest role, chats with the classmates in a social manner. The element $a_{1,28} = 7$ indicates that the peste interacted 7 times with the guru regarding the mathematical problem while the secondary, i.e. social, interactions between them were 6 (since $a_{1,29} = 6$). There have been 5 direct messages the teacher wrote to the peste about the mathematical problem while the last entry of the first row indicates that the secondary messages the teacher exchanges with the first student were 2.

In the following table there are some of the messages the students wrote in the chat we used in our analysis.

Table 1. Chat excerpts

12:28 Pest	guys how can we get to the solution?
12:29 Pest	Do you have any ideas on how to proceed?
12:29 Promoter	reading the numbers horizontally they multiplied the averages with the extremes
12:29 Blogger	yes, in the fifth line, since they are successive numbers, we could think that the missing number is 17
12:30 Boss	yes
12:30 Promoter	yes, in the fifth one is $21 \cdot 24$
12:30 Pest	Are you sure you need to multiply the averages with the extremes?

Moodle gives information about the time of each message written in the chat and allows to identify also the role of the author. The examined episode is related to the initial phase of the *exploration* and it took place between 12:20 and 13:30 during the school time. The exchange of the first messages in the chat recognizes the Pest’s role in promoting and questioning the resolution of the mathematical problem.

By using the data matrix, A , we constructed the similarity matrix associated with our application. The observation that the group of the actors given by the first 4 students interact only with the teacher while the other students, who are the observers in this phase of the experimentation, interact neither with each other nor with the first group and the teacher, leads to notice that, in terms of graph theory, the indices corresponding to the actors and the teacher may give a connected component of the underlying graph., i.e., set of vertices that are linked to each other and are connected to no additional vertices in the rest of the graph. Hence, by applying the spectral algorithm, the indices identifying the actors together with the teacher should correspond to the children of a Q node. The other students, on the other hand, may be considered as isolated nodes and so their indices, according to how the spectral seriation algorithm works, should identify the children leaves of a P node.

As mentioned above, the spectral algorithm is applied to the similarity matrix associated with the matrix AA which describes the data and it constructs the PQ tree, displayed in Figure 1 which encodes all the admissible permutations of the nodes, i.e. the participants.

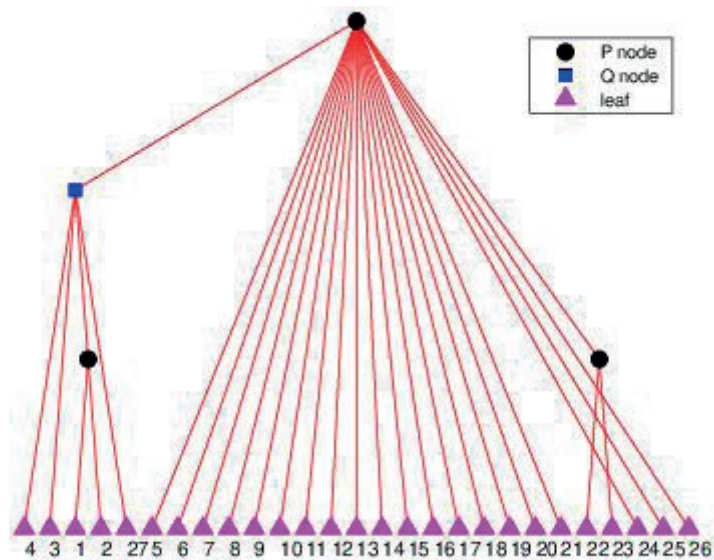


Figure 2. The PQ tree

One of the admissible permutations, whose number is constrained by the particular structure of the tree, is

$$p=[431227567891011121314151617181920212223242526]$$

and it represents the displayed frontier of the tree represented in Figure 1 that is one of all the possible frontiers.

By observing the structure of the tree, it can be noted that the leaf nodes labelled as the students who acted and the teacher, are isolated from the others which represent the observers.

Specifically, the nodes which represent the participants are children of a Q node that is characterized by the fact that it represents both the right and the left orderings of its leaves labelled as the node in the graph. The P node, child of the Q node, represents the equivalence class of all the permutations of its leaves. Hence, all the constrained permutations of the nodes labelled as the participants in this phase, i.e., the students who acted and the teacher, are the following

4	3	1	2	27
27	2	1	3	4
4	3	2	1	27
27	1	2	3	4

Figure 3. The permutations

As aforementioned, the seriation problem consists in finding the best enumeration order of a set of units so that elements with higher similarity are closer to each other in the resulting sequence. Under this perspective, the obtained permutations allow us to make some considerations regarding the similarity of the assigned roles based on the messages written in the chat. In fact, it can be observed that, in all the admissible obtained permutations for the nodes that represent the active players in this episode, nodes 1 and 2 (the Pest and the Blogger) are always close to each other and so are nodes 3 and 4 that represent the Boss and the Promoter respectively. The teacher, labelled by node 27, is closely related to the Pest and the Blogger as in all the resulting sequences these three nodes are placed together.

From the point of view of a didactic interpretation, the structure of the graph allows an analysis of the behaviors of the student who actively participated with respect to the role assigned to each one of them and with respect to the communication with the teacher. The expected behavior of the Promoter, whose task is to animate the interaction between peers and any direct interaction with the uncle, is confirmed. The student who assumes the role of the Pest, aimed at asking everyone questions, interacts mainly with the Blogger on the mathematical question to be solved. We recall that this first episode is related to the exploration of the problem from a mathematical point of view but also to the trial stage of the roles' tasks. This may explain the particular structure of the graph related to the players which highlights a similarity in the behavior of the roles of the Pest and the Blogger with respect to the other characters. In this first phase, the teacher deliberately plays an interlocutory role with respect to both the management of the group and the resolution of the mathematical task.

4. Discussion and Conclusions

In this manuscript, we presented the preliminary results of an experimental work, on digital storytelling in Mathematics, aimed at promoting critical mathematical thinking among students. The analyzed activity is the first episode of a story that develops in 5 episodes and involves the participation of students from a second-grade class who take on both the role of active protagonists and that of observers of the actors during the problem solving activity. In particular, the communication between the participants who interacted on the chat of the Moodle e-learning platform was examined from a didactic and numerical modeling point of view.

The case study analyzed above, allows us to validate the spectral algorithm and the accompanying Matlab toolbox originally implemented for solving the seriation problem in archaeology where the latter appeared first. In particular, the outcomes obtained for the active members of the study and the comments at the end of Section 3, show that the spectral algorithm gives a reasonable result in terms of admissible permutations for the indices of the nodes depicting the assigned roles. Although the size of the examined sample is not very large, the structure of the algorithm allows us to confirm that also for wider dimensions, the group of the active participants should be separated from the observers as it identifies a connected component in the underneath graph. Moreover, from a numerical point of view, the size of the similarity matrix does not constitute a problem since the spectral algorithm is based on the computation of an eigenvector and for this purpose the toolbox includes the possibility to choose between a small-scale and a large-scale implementation and, for improving the performance in case of a large-scale problem, a parallel version of the method is also provided.

In this work, we observed how the complex networks analysis in a DIST-M setting may be worthy both as a tool for validating the mentioned algorithm and as a potential instrument for allowing the identification of the behaviors, whether didactic or interpersonal, one wants to examine.

Further development of this research may include the analogous investigation of the episodes subsequent to the first analyzed in this manuscript, in order to put emphasis on potential dissimilarities in the behavior of the students when they assume a different role.

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Declaration of Interest Statement

The authors declare that they have no conflict of interests.

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SECTION: 5
MEDIA EDUCATION (METHODOLOGY)

Educational Invisibility and Media Communication. The Educator between Action and Representations*

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Abstract

In the interconnected and hyper-complex society, the growth of the opportunities for information transfer does not yet correspond to a real and equal increase in the possibilities of communication. The reciprocity of the communication process is questioned by the perception of the educator who feels “invisible” to the eye of public and media attention. The media only give a partial picture of the complex world of the reception of Unaccompanied and Separated Children (UASC) and largely overlook the wide range of projects which, if highlighted, would contribute to the affirmation of a different vision of the migratory phenomenon and of good management practices of the same. From the research conducted by L. Milani (2020), on the concept of invisibility related to UASC, it emerged that educational action and its real and perceived scope do not find an effective confirmation in media communication. The media refer to a stereotyped representation of difference. The research results ask for a reflection on the media communication methods relating to the educational system of reception of UASC to whom education provides a competent response that needs to be recognized. For this purpose, a brief review of the printed paper (*Il Corriere della Sera* historical archive) and of the *RAI* archives was conducted, useful for the construction of a knowledge framework about representations of UASC and educators. This research reveals a deficit, flattened and negative image of the migrant child and little or no consideration of educational work. In fact, not much is said about integration projects but much is said about the critical management issues of the phenomenon.

Keywords: Unaccompanied minors, educators, invisibility, social representations, media communication.

Introduction

The stereotyped representation of gender, migrants, minorities, cultures, or ethnicities still constitutes a critical node in both print and audio-visual media production, thus giving rise to real misinformation (Calvanese, 2011; European Commission, 2020) and the reinforcement of forms of hatred or discrimination. The hyper-complex and hyper-connected society (Giddens, 1991; Beck, 2013), in fact, has fostered neither an effective and equitable development of the possibilities of communication and expression nor a precise, articulated, and free from prejudice vision of these diversities, much less of Unaccompanied and Separated Children (UASC). The reality of these minors, described in the media, suffers from this representation and is confused with that of adult migrants, generating false knowledge and feeding mistrust. This poor and stereotyped representation of UASC corresponds, in fact, to their invisibility, because they are marginalized and rendered unintelligible to media users. The picture returned by the media is partial (Traverso, 2018) and fails to describe the wide range of services, projects and interventions of reception nor the good practices of inclusion and integration. The same educators working with UASC do not have a real media visibility and report an indifference of the media to the multiplicity of issues and projects in place.

From the research on the invisibility of UASC conducted in 2018 (Milani, 2020), it emerged, from the educators interviewed, that the media communication does not confirm the heterogeneity and richness of the educational reality and the scope of pedagogical professionalism. This research also highlights the self-perception of educators as invisible persons associated with the invisibility of children and their interest in giving voice to this dual invisibility. The

*This contribution, fully shared by the authors, was drawn up as follows: paragraphs 1 and 4 by L. Milani; paragraphs 2 and 3 by F. Matera

research results ask for a reflection on the media communication methods relating to the educational system of reception of UASC to whom education provides a competent response that needs to be recognized.

1. Background

The number of UASC landed on Italian territory between 2016 and 2020 is 51,480; the number of untraceable, in the same years, is 23,393 (Ministry of Labour and Social Policy, 2016, 2017, 2018, 2019, 2020). From the available data, we note a steady decline, especially from 2017 to 2018, and then a gradual recovery in 2020, when the number of UASC landed increases from 1,680 in 2019 to 4,687 in 2020, despite the Covid-19 pandemic.

In this frame, the evident visibility of the numbers corresponds to an invisibility of the minors: the UASC remain invisible persons, escaping the mesh of the social network. This is a real process that leads to invisibility, a process in which visibility (Milani, 2015) is still marked by uncertainty and fragility (Kohli, 2006; Eide and Hjern, 2013). This fragility does not only belong to the single minor, but it is also rather a systemic fragility (Accorinti, 2014; Milani, 2015) that involves all the net that – starting from the country of origin – brings to the destination country, up to the reception system.

This process of invisibility is very complex. Indeed, its variables are several: social, political, cultural, and economic. Our contribution builds on a previous research completed in 2018 (Milani, 2020). The research explored the category of invisibility as a category to read, to interpret, to diagnose and to question the practices of hospitality for UASC in the Italian context and specifically in Piedmont. The research was structured as an interpretative inquiry through a self-filled questionnaire with 10 open questions. The questionnaire has been administered to 71 educators working with UASC.

The answers to question 10 raised new questions that promoted our current research that we present here. *Question 10*, in fact, asked: “We ask you to write down the question that is not contained here and to which you would have liked to answer on this subject and we also ask you to give us your answer”. This question allowed us to widen the perspective of the research, giving the “power of interviewing” to the interviewee himself, considered as an “expert”.

The interpretative categories have brought out the data that we see represented in Table 1.

Table 1: Interpretative categories emerged from the “Question 10” – Research on invisibility of UASC (Milani, 2020). Respondents: 71, Answered: 46, Not Answered: 25

Number	Description: Invisibility in self-administered questions becomes...
1	... <i>bureaucratic invisibility</i> as a necessity to identify the child but also to promote identity
2	... <i>structural invisibility</i> of the composite multilevel governance network that makes things more complicated and working with minors intricate: the procedures, the taking on responsibilities and the multi-professional management
3	... <i>invisibility / media visibility</i> of the child and poor public information. <i>At the media level, minors become paradoxically visible when they commit crimes</i>
4	... <i>invisibility / visibility of the social workers and educators</i> who feel themselves invisible

As seen in Table 1, there is a strong awareness in these responses of the complexity of the phenomenon and the problems arising from multilevel governance. In some answers proposals are also made to improve the reception practice. In particular, the questions and answers given by educators highlighted the invisibility of minors and educators in the media (no. 3 and 4). An unexpected result concerns this invisibility of educators.

From these findings, the need for research emerged to understand the invisibility of UASC and educators in the media and their silence.

From careful analysis, we noted the absence of specific studies on the media representation of UASC and educators working in the reception system. The lack of literature strengthened the motivation for this empirical research conducted on the analysis of print and audio-visual products.

Starting from the research on invisibility (Milani, 2020), some hypotheses were extrapolated: media communication conveys a unique message on migration, negative, deficient, and flattened, not allowing the development of a critical thought on migration and its protagonists, lacking the research of motivations and factors that are intertwined in marginal lives.

The second hypothesis is that minors who undertake pathways of integration and active participation in the territory remain invisible to the press.

Finally, the third hypothesis considers the absence of educators from media communication.

Therefore, some research questions were identified:

- What representation is given by the media of the migration phenomenon and specifically of UASC?
- Is there an invisibility of educators?
- What is the visibility of educators and UASC?

2. Materials and Methods

In order to investigate the modalities of media communication related to the phenomenon of child migration in Italy and the role played by education in the territory and in reception facilities, a brief review of the printed paper (*Il Corriere della Sera* historical archive) and of the *RAI* archives was conducted. The goal is to construct a knowledge framework about representations of UASC and educators, in order to promote the visibility of pedagogical action, its professionals and its social implications.

For a reading of the representations of UASC and educators in the media, we decided to use the archives of the newspaper *Il Corriere della Sera* from the years: 2016, 2017 and 2020 and those of *RAI* from the same years. As for the *RAI* data, since the archives are not accessible due to the restrictions caused by the Covid-19 pandemic, we considered the material already partly processed by the *RAI* archivists and, therefore, the analysis of the data is limited by the impossibility of viewing the original materials. The choice of the years was made based on the criteria of the most salient events that have characterized the migratory phenomenon and the reception of UASC in our country and with the following reasons:

- 2016: is the year in which the arrivals of UASC reached unprecedented peaks, with a number equal to 25,846;
- 2017: is the year in which the Law 47/2017 came into force;
- 2020: is the year of the spread of the Covid-19 pandemic.

In order to answer these questions, we proceeded to the analysis of the texts of the articles for *Il Corriere della sera*; for *RAI* we used the Excel file, with the short texts of the audio and video descriptions of the sources, guided by the emerging thematic categories.

For each article considered, a reading was conducted aimed at identifying:

- The topics covered;
- Salient data;
- Significant expressions.

The empirical basis was subjected to progressive analysis. We then proceeded to search for answers to the starting hypothesis, then to a top-down analysis, and to a bottom-up analysis, being guided by the themes that emerged from time to time (Cadei, 2005).

3. Results and Discussion

Based on these two coordinated approaches, we analysed the sources, identifying the following categories:

- Landings;
- Legislation;
- Illegality and security;
- Planning on the territory;
- Educators;
- Numbers and management, structural and economic, of reception.

The analysis of the data led to the identification of a very large number of themes that open to complex reflections. However, here we focus on the salient elements.

The number of frequencies may not match the number of articles or video products, as there may be multiple categories found in each. This highlights the high complexity of the analysis.

For the RAI historical archives, the TG, TGR and television programs were considered. A total of 111 services were analysed.

Table 2: Results from the analysis of “RAI” Historical Archive (TG; TGR; TV programs) – 2016
Keywords: minori/e stranieri/o non accompagnati/o; Msna; Misna - Total programs analysed: 111
Year: 2016; programs: 25

Category	Descriptive elements	Frequency
Landings	Increased landings and presences of UASC in Italy: “children, on the way” (closure of the Balkan route)	5
Legislation	UASC reception and protection draft law (Law 47/2017)	5
Illegality and Security	Untraceability; risk of exploitation and damage to structures for migrants (arson attack)	3
Planning on the Territory	Opening and implementing new foster care and “placement” projects for UASC and training courses for volunteer guardians	5
Educators	Interviews with operators (not educators): economic and management difficulties of structures; foster care projects	6
Numbers and Management, structural and economic, of Reception	Lack of structures, overcrowding, structural and economic shortcomings (“collapsing” structures); emergency management of the migratory phenomenon and reception and difficulties in protection (too long residence times of UASC in places unsuitable for minors: hotspots); “Without name, without trace”	9

As seen in Table 2, for the year 2016, there were 25 programs analysed and the category most present is that of management of reception, linked to structural deficiencies, lack of places in the structures and inadequate management of reception – minors remain for too long in

the hotspots. It is also mentioned that there has been a significant increase in the number of landings and the presence of UASC in Italy, the need for a specific law for these minors and the population's intolerance regarding the presence of migrants. Regarding educators, they are not appointed. Interviews with operators are mentioned, mostly regarding the difficulties of the structures.

*Table 3: Results from the analysis of "RAI" Historical Archive (TG; TGR; TV programs) – 2017
Programs: 65*

Category	Descriptive elements	Frequency
Landings	Growth of UASC landings and presences (six-fold the number of UASC landed in Italy); first UASC Atlas by Save the Children	6
Legislation	Approval and widespread appreciation of Law 47/2017 (prohibition of refoulement and equal rights with Italian minors); establishment and presentation of the figure of the volunteer guardian	13
Illegality and Security	In Europe, approximately 10,000 UASC lost track of in 2016: attention to the phenomenon of untraceability; UASC living on the street and perception of dangerousness both for minors and social alarm (diseases of a physical nature and psychological-behavioral problems)	3
Planning on the Territory	Projects, conventions, city festivals and exhibitions also in collaboration with citizenship for the reception, integration, and widespread knowledge of the phenomenon; much attention to the development and training of volunteer guardian	22
Educators	Interviews with associations and presidents of cooperatives for UASC	3
Numbers and Management, structural and economic, of Reception	Difficulties in the economic and structural management of the phenomenon: increased costs for the social sector, inadequate placement of UASC, high number of untraceable; Sicily: Italian region with the highest number of UASC	17

As seen in Table 3, for the year 2017, there were 65 programs analysed, with the most frequent category being planning. We talk about projects, city festivals and exhibitions in collaboration with the citizenship for the reception, integration, and widespread knowledge of the phenomenon of UASC. Much attention is devoted to the training of the volunteer guardian, a figure introduced by Law 47/17. The other category represented is that of the management of reception, for which we speak of economic and structural difficulties for the growth of the presences of UASC, mainly in Sicily. Educators are also left out in this case: interviews are mentioned with operators, not educators. Finally, the high number of untraceable people is related to the spread of danger and social alarm.

Table 4: Results from the analysis of “RAI” Historical Archive (TG, TGR, TV programs) – 2020
Programs: 21

Category	Descriptive elements	Frequency
Landings	/	0
Legislation	/	0
Illegality and Security	Increase in migrants arriving from the Balkan route; health security for Covid-19 (quarantine and fear of contagion); high number of untraceable minors	3
Planning on the Territory	Numerous services dedicated to the “WelcHome” project to raise awareness of family-based foster care (interviews with caseworkers and foster caregivers); mentoring projects for UASC	7
Educators	Associations, NON-educators	1
Numbers and Management, structural and economic, of Reception	Increasing number of UASC in Friuli Venezia Giulia (Italian region) due to arrivals from the Balkan route and difficulties in managing presences also due to the health emergency: overcrowded facilities	9

There are 21 programs in 2020. We note immediately that there is no mention of landings or of the law, and that once again the category most represented is that of reception management, especially in the regions of northern Italy, and to the difficulties linked to the Covid-19 pandemic. In this case, in fact, we are talking about health security linked to the fear of contagion. The projects most represented are those related to the practice of foster care, also encouraged by Law 47/2017.

Turning to the newspaper *Il Corriere della Sera*, there were a total of 92 articles analysed, including 36 in 2016, 50 in 2017, and only 6 in 2020.

Table 5: Results from the analysis of “Il Corriere della Sera” newspaper (online historical archive) –2016.
Keywords: *minori/e stranieri/o non accompagnati/o*; *Msna*; *Misna* - Total articles analysed: 92
Year: 2016; articles: 36

Category	Descriptive elements	Frequency
Landings	Massive (“It is the most important displacement of people in Europe since World War II”): in October, more 19,000 UASC landed in Italy -EU country must be affected by landings -, “invasion”, “siege”, budget gap	10
Legislation	Need for central management for diffuse reception; “regulatory vacuum”: law for the protection of UASC needed (Law 47/17 approved in the House); systematic violation of migrants’ rights and discriminatory acts (rejections at the border)	7

Category	Descriptive elements	Frequency
Illegality and Security	Logic of emergency and control, and high number of untraceable cause restrictive policies and fear of the foreigner, labour and sexual exploitation, health security, problems of public order: "What reception can be done in a building in the open country, with the courtyard shared with that of the family living there?"	23
Planning on the Territory	Projects that promote: interculturalism, active citizenship and integration; collaboration between local authorities and territory; dissemination of best practices; projects to manage the emergency (foster care initiatives by operators); volunteering; Save the Children project for street children; solidarity	8
Educators	Victims of violations of fundamental rights; not paid; "guilty" of not being able to guarantee reception; lack of a central role; educational devaluation: 1) cost criteria as prevalent in the choice of placement; 2) facilities for minors are not necessary; promoters of "insertion", "autonomy" and "recovery" projects for UASC who "really want to integrate"	12
Numbers and Management, structural and economic, of Reception	Overcrowded reception system, driven by the logic of emergency (temporary, inadequate, and undignified accommodations) and to be reorganized in order to deal with exploitation and psychological imbalances; lack of funds for minimum services for survival and to pay operators; less funds for Italian minors; migration incentivized by "popular tales"	28

As seen in Table 5, regarding 2016, we talk mainly about the management of the phenomenon, driven by the logic of emergency and therefore to be reorganized, including at the regulatory level, to respond also to exploitation, psychological and behavioural imbalances and problems of public order. Then there is a comparison with Italian minors, who, due to the high number of unaccompanied minors in facilities, are at risk of receiving fewer care services. In this case, educators are mentioned twelve times, but they are represented as victims of violations of fundamental rights, guilty of not providing reception because they are not paid. In particular, the lack of a central role and an educational devaluation are highlighted. In fact, the choice of the child's placement is based on cost criteria and educational facilities are considered unnecessary. A central role is given to the child, who can be integrated only if he/she "really wants to integrate".

Table 6: Results from the analysis of “Il Corriere della Sera” newspaper (online historical archive – 2017 Articles: 50

Category	Descriptive elements	Frequency
Landings	Massive: Italy most affected EU state; highest number of landings: Port of Augusta (Sicily); UASC: chapter “particularly disturbing”, “daily emergency”, “drama in the drama”, often become “invisible”, “in perspective unproductive” because “largely uneducated”	10
Legislation	Appeals from the territory for the acceleration of the law on UASC; approved in the House Law 47/2017 (equal rights with European minors): “A decision that places us among the most advanced countries”, “A choice of civilization for the protection and integration of the weakest”; Law 119/2017: mandatory vaccinations for minors 0-16, including UASC	6
Illegality and Security	Spreading fear of foreigners: threatened public and health safety (Islamic fundamentalism, citizen protests against refugees – “criminal profiteering” and “social danger” – declining school enrolment and migrant protests over poor conditions in reception centres); UASC statements: “we do nothing, we see nothing for our future”	16
Planning on the Territory	Projects to promote integration and intercultural exchange, to combat discrimination and to promote widespread reception in a spirit of solidarity; raising public awareness of the voluntary guardian: “a point of reference for education, as well as legal”	10
Educators	Those who “are most committed to this field”; more bets should be placed on them; educational work: “it’s not a matter of repairing damage and trauma, but of helping these kids transform their experience into an awareness of their abilities”	1
Numbers and Management, structural and economic, of Reception	UASC numbers increasing (“vulnerable and voiceless”); specific protection (“alone, fragile”); active role of society in reception needed; inadequate management of reception; repeated displacement and prolonged stay in first reception or hotspots; onerous economic management of reception; increased number of untraceable (“on the run”; Italy: transit country)	25

As seen in Table 6, 2017 is still an important year for the presences. Italy is mentioned as the European state most affected by landings, and UASC as a “drama within a drama”. UASC are considered “largely uneducated” and therefore “in perspective unproductive”. The category “illegality and security” appears 16 times. There is a widespread fear of foreigners, considered “social danger”. In fact, migrants complain about the poor conditions in the centres and consider themselves without a future. School enrolment is falling in a neighbourhood where there

is a centre for migrants, and a citizen interviewed says: “Would you send a six-year-old child to a place surrounded by desperate people?”. There is talk of projects to promote integration, intercultural dialogue, and solidarity and to combat discrimination. The strong presence of the educator in the work with UASC is recognized, who must promote awareness of their own abilities and not repair damage and trauma. Management of reception is still difficult and inadequate. There is a lack of places in the structures and a lack of training and apprenticeship projects.

Table 7: Results from the analysis of “Il Corriere della Sera” newspaper (online historical archive – 2020 Articles: 6

Category	Descriptive elements	Frequency
Landings	Migrants landed in Italy in the first half of 2020 almost 3 times higher than in the first half of 2019	1
Legislation	Law 47/2017 presentation	1
Illegality and Security	UASC baby gangs living in abandoned cars and committing crimes (dealing, beating, and robbing peers): “Violence as a form of redemption”; UASC: “kids <i>without families</i> ”	1
Planning on the Territory	Projects to promote mutual understanding, to “overcome the fear and mistrust both of those who arrive in a country so different from their own, and of those who experience immigration as a threat to their daily lives”, to promote inclusion, social relations, and economic and housing autonomy	2
Educators	/	0
Numbers and Management, structural and economic, of Reception	ISMU data 2016-2017: 40,000 UASC landed in Italy, 80% driven by better economic and social prospects; it is necessary to make a deeper and more complex reading of migration and of those “fugitive stories, suspended between the breath of the world elsewhere, inhaled in the web, and the grip of societies at once immobile and terrifying”; necessary pathways and funds for support in the period of transition from minor to major; educational poverty strongly affects the possibility of undertaking study and work pathways and therefore to avoid expulsion at the age of 18 years old	2

As seen in Table 7, regarding 2020, we immediately note that there is no mention of educators, but of projects to promote inclusion and dissemination of knowledge of the phenomenon among minors and citizens, also to combat fear, mistrust, and discrimination. The arrivals of UASC increase again, for economic reasons. It is said that a more complex reading of migration is necessary because it is necessary to grasp those experiences suspended between expectations and reality that are defined as “immobile and terrifying”. There is also talk of educational poverty as a condition that affects the possibility of integration and support in the transition from minor to major age.

4. Conclusion

The main outcome of the research is the confirmation of the hypotheses about the invisibility and unclear representation of UASC and, especially, educators. Therefore, we can state

that silence and devaluation of educators have been confirmed, as well as the hypothesis that minors are most talked about when they are untraceable or criminals and when they represent a structural and economic management problem.

Limitations include the analysis of only two sources, albeit with many products, and the choice, albeit reasoned, of reference years constitutes the boundary of the research. Relevance is determined by the fact that since there is not a large body of literature, the research provides a point of reference and an initial approach to the issue of media representation of UASC and educators. Furthermore, the research indicates the importance of investigating with other sources as well and recommends that the results serve to guide new ways of media communication attentive to giving visibility to these categories of people.

To conclude, we can state that the findings appear congruent with the statement emerged from the 2018 research on invisibility of UASC (Milani, 2020), which we report below:

“Can the work of the operators be itself defined as ‘invisible’? Yes, it can. In the eyes of the community and often also in the eyes of the children. [...] the media, political and public commitment focusing on what does not work with respect to what is done”.

“How do you consider your profession? Visible or invisible? The profession of educator should be more visible. To become more recognized, it is necessary that every educator exercises this difficult task with extreme professionalism. That is the only way to become visible people who help those who are invisible become people”.

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The Digital Storytelling Methodology in Media Education for Learning Digital Citizenship Skills as part of a University Course

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Abstract

The aim of this study was to investigate how a group of university students perceived their actual achievement of a series of media, digital and critical reflection skills (information, media and digital literacy) developed during a Media Education Workshop conducted by using Digital Storytelling techniques. The study saw the participation of 176 students with an average age of 21, who live within an “Infosphere”, that is an eco-system dominated by media frameworks and a continuous flow of information (thus, in a mediatization context). During this workshop, students were organised into work groups and they were asked to design 76 videos to be published on the Web. Four thematic areas were addressed: digital life, the environment, volunteering, the association movement and active citizenship. Completed the activities, students were then presented with a questionnaire meant to analyse their perception of the effectiveness of Digital Storytelling in the development of digital and media skills from various perspectives, in particular, with a focus on critical thinking regarding concrete experiences. The quantitative and correlational assessment was conducted on the basis of an initial hypothesis according to which the Digital Storytelling approach enables participants to learn both technical skills, in the use of digital tools (especially video), and critical reflection and meta-cognition skills, thus stimulating awareness and recognition of the students’ ethical, social and value-related dimensions as well as their contextual meaning.

Keywords: digital storytelling, media education, information literacy, media literacy, digital literacy, digital skills.

Introduction

Transformation processes, brought by technological development, stimulate current debates concerning both the future of education and the construction of competences, especially with reference to younger generations. As a matter of fact, they live within the infosphere (Floridi, 2017) which is intended as an eco-system dominated by a continuous flow of information in which both social institutions and individuals incorporate the “logic” of the media. People’s life itself becomes *Onlife*, that is an interchange that continuously receives and redistributes information (Serres, 2015) through a process of mediatization (Hepp, Hjarvard, Lundby, 2015). The dis-intermediation, concerning social, cultural and political structures, also includes the work environment, fostering a change of perspective with respect to the interaction between man and machine.

1. Background

In this context, work transformation brought by the 4th industrial revolution, is characterised by an interrelation of people, machine learning and products that are able to interact with each other thanks to the “internet of things” as it produces a huge amount of data that are transformed, by artificial intelligences, into information and this consequently change modifies the processes of productivity (Costa, 2018). Given this scenario, human resources will be able to exploit these innovative processes if they are properly trained to deal with the current changes, and, similarly, training institutions, such as the university, should develop and propose models that respond to the complexity of these transformations especially in the field of teaching. Starting from this framework, the research carried out at the University, which

involved 176 students of the Communication Pedagogy workshop throughout the academic year 2018-19, constitutes a contribution aimed at investigating the feasibility and effectiveness of the methodological approach of Digital Storytelling in order to enable students to learn technical skills related to the use of digital tools (especially video) and critical reflection and meta-cognition skills based on experiential activities. The investigation was conducted starting from the research hypothesis that the learning of some media education skills (information literacy, media literacy and digital literacy) led to more effective outcomes since, as attested by Robin, instructional design is constructed by exploiting the didactic potential of Digital Storytelling (Robin, 2008) by:

1. improving the understanding of disciplinary content (De Rossi, Petrucco, 2013);
2. stimulating attention and recognition of value, ethical and social dimensions as well as inclusion (Di Blas, 2016);
3. developing reflective and self-awareness skills, of the self for guidance and improved practices (McDrury, Alterio, 2003).

2. Materials and Methods

In such an innovative digital and technological context, a focus on the concept of competence becomes crucial, starting from its definition, elaborated by the European Council in May 2018 (European Council, 2018), according to which digital competence is identified as one of the key competences. In particular, it is stressed the idea that digital technologies should be used in a critical and responsible manner therefore highlighting the need to explore new ways of learning to ensure the appropriate combination of 'hard' and 'soft' skills (European Commission, 2017). In line with this definition there is also the concept of competence elaborated by the Oecd, which defines its formation as the mobilisation of knowledge, skills, attitudes and values through the process of reflection, anticipation and action addressed to develop the interconnected competences required in order to interact with the world (Oecd, 2030). The didactic methodology of Digital Storytelling (Lambert, 2013) fits into such a scenario because it allows students to experience a work of critical-reflexive analysis on the coding of messages and media themselves and, at the same time, giving them the possibility to participate in civil society through the sharing of stories and experiences designed in the logic of active citizenship (Buckingham, 2013). Moreover, this didactic methodology is in line with the socio-constructivist approach (Jonassen, 1994) which is strictly related to the production of collaborative forms of knowledge (technological dimension); the activation of meaningful teaching and learning processes (cognitive dimension); the development of socially responsible skills (ethical dimension). The competences that can potentially be activated in the three phases of design, realization and sharing of a Digital Storytelling in video format, together with synopsis and storyboard, can be summarised as follows (Figure 1):

As for the skills related to Digital Storytelling, the research investigated those defined by Robin (2008) as "strategic for the 21st century" and related to information media and digital literacy.

In the Digital Storytelling workshop participated 176 students, 164 of whom (108 females and 56 males) actually participated in the survey by filling in the questionnaire. All the students were in their second year of a Bachelor's degree with an average age of 21.7 years and therefore they are part of that generation defined by researchers as *always on*: that is, young people who live almost all their daily activities mediated by the use of digital media (De Kerckhove, 2016). In order to detect students' perception of the achievement of the key competences acquired throughout all the stages, such as concept (Information Literacy), design development (Media Literacy) and dissemination/sharing (Digital Literacy) which are related to the Digital Storytelling workshop, an appropriate questionnaire was developed and administered at the end of the course (Table 1).



Figure 1: The convergence of digital storytelling in education (Robin, 2008, p. 223).

Table 1: Skills involved in the Digital Storytelling workshop activities.

	Concept	Design	Sharing
	Information Literacy	Media Literacy	Digital Literacy
Literacy	Ability to find, assess, manage, synthesize and provide information	Ability to create media products; ability to communicate effectively	Ability to develop critical and ethical reflection

The research framework was designed to investigate the three dimensions of digital literacy (Van Dijk, 2005): the cognitive dimension (knowledge of terms related to the digital environment and its operating logic), the operational dimension (ability and familiarity with different digital environments) and, finally, the critical dimension (the ability to critically analyse and verify digital tools). Each dimension corresponds to two interrelated closed-ended questions to which a score has been assigned and, when added together, results in an overall score corresponding to information, average and digital literacy (Table 2). To the score was applied the statistical technique of correlation in order to verify whether the connections that exist at a theoretical level, within the three dimensions of digital literacy, were also present in the workshop and to detect the degree of intensity (Ercolani, Areni, Leone, 2008).

Table 2: Questions and related dimensions in the student questionnaire.

Dimensions	Closed-ended questions
Information Literacy	1. Has the use of digital storytelling methodology to design a video enabled me to manage information more effectively than using traditional tools such as a writing file?
	2. Has the use of digital storytelling methodology to design a video enabled me to provide information in a more compelling way compared to traditional forms of communication (text or slides)?
Media Literacy	3. Has writing a synopsis and a storyboard to design a video enabled me to focus on the contents in a more effective way compared to the use of traditional tools?

Dimensions	Closed-ended questions
	4. Has creating a video based on the use of digital storytelling methodology enabled me to learn contents more effectively compared to other teaching methods?
Digital Literacy	5. Has sharing the video to Vimeo helped me to critically evaluate my project?
	6. Has the feedback received concerning the video enabled me to reflect on the effectiveness of the work carried out?

Students could answer the six closed questions using a Likert scale from 1 to 5 (not at all; not much; moderately; quite a lot; very much). Two open-ended questions were also added in order to investigate students' perception of the potential use of the Digital Storytelling methodology also outside the university didactic environment, especially in a future professional context (Table 3).

Table 3: Open-ended questions in the student questionnaire.

Dimensions	Open-ended questions
Digital Literacy	7. To what extent do you think that Digital storytelling techniques may be applied in your future working environment in order to employ communication effectively?
	8. To what extent do you think that Digital storytelling techniques may be applied in your future working environment in order to critically reflect on the effectiveness of the work carried out?

The questionnaire was administered using SurveyMonkey software at the end of the course and the data processing and statistical analysis was done using SPSS software.

3. Results and Discussion

The results of the closed-ended questions highlight that:

For the dimension "Information and Media Literacy" (creating, organising, synthesising) students consider Digital Storytelling videos to be a more effective tools than traditional teaching methods for both organising and communicating information. The percentages of answers to question n. 2 are distributed between "quite a lot" (45.7%) and "very much" (40.2%) while the percentage of answers to question n. 6 on the effectiveness of the methodology with respect to learning is distributed between "quite a lot" (47,00%), "moderately" (32,9%) and "very much" (15,2%).

For the "Digital Literacy" dimension (capacity for critical and ethical reflection): 25% of the students answered "not much" or "not at all" to question n. 5 on sharing for critical evaluation therefore considering the Digital Storytelling videos merely a didactic artefact, as required by the aims of the workshop, and not a communication and potential social reflective tool that can also be used even outside the academic context.

With regard to the first point, since students have experimented the making of a video by creating both a synopsis and a storyboard, this has allowed them to learn the disciplinary contents in a significant way (Moon, 1999). Considering instead the answers of those who did not make the video, "enough" prevails, which is the intermediate choice and can be interpreted as a neutral answer. A focus on the second point, reveals that the most relevant data are the answers to questions 5 and 6 that investigate digital literacy, from a perspective related to critical reflection and ethical responsibility both issues that students have experienced during the realisation of Digital Storytelling as educational tool. The answers show that the diffusion of videos on the Web and the potential opinion of those who watch them do not seem to be considered as an important factor. In addition to this, the correlational statistical analysis under-

lines a lack of interest in the potential critical thinking component of Digital Storytelling. The inferential analysis related to the three dimensions of digital skills (cognitive, operational and critical) resulted in a good intensity of relationship between information and media literacy (correlation of 0.488) while the relationship between media literacy and digital literacy stands at 0.377, confirming a limited interest in perceiving the importance of the ethical and social component in their work (Table 4).

Table 4: Correlation coefficient (Spearman's Rho) of the intensity between the 3 variables.

Dimensioni	Media Literacy
Information Literacy	0,488
Media Literacy	1,000
Digital Literacy	0,377

This seems to indicate that the more students are capable to organise and communicate information by means of digital storytelling (information literacy), the more they will learn such information effectively (media literacy).

This specific inference is also found in the qualitative analysis carried out thanks to the two open-ended questions (question n. 7 and n. 8) from which it emerges that the Digital Storytelling method is perceived by students as an active and intentional process of thinking and strongly connected to learning even in a potential working environment. The thematic core "organisation and method", which appeared 19 times, reveals that Digital Storytelling is perceived by students as an effective system to organise and combine contents and information they want to convey (Figure 2).

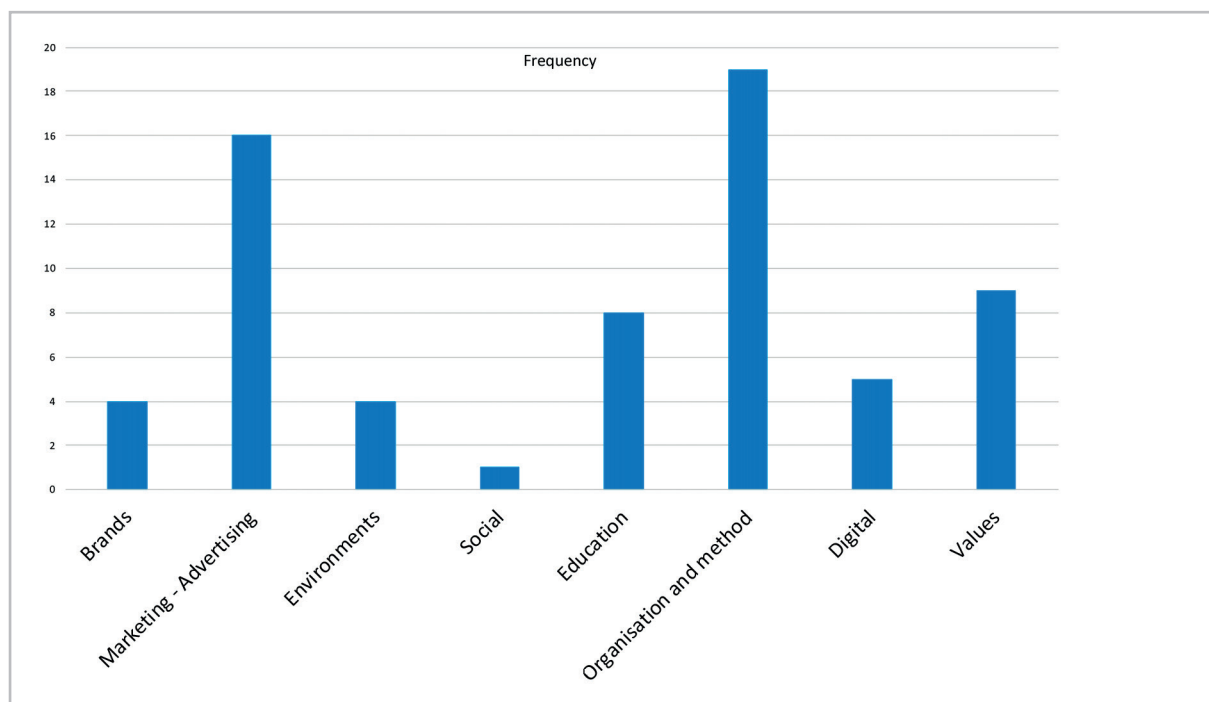


Figure 2: question n. 7 "to what extent do you think that the use of digital storytelling may be applied to the working environment to enhance effective communication".

Students' perception concerning the applicability of this methodology, even in the working environment, underlines both the function of organising device that narration assumes (Petrucco, De Rossi, 2012) and the importance of the discursive intentionality which is part of a story in order to be effective.

4. Conclusion

Given that the creation of a Digital Storytelling activates a comprehensive portfolio of information, media and digital literacy skills, the results of the questionnaire show that students' perception is, on the one hand, very high especially with reference to technical skills (information and media literacy), while, on the other hand, with regards to ethical-critical skills, almost half of the students consider Digital Storytelling merely a didactic artefact, as required by the aims of the workshop itself, and thus it is not considered a tool for critical reflection (digital literacy). This is undoubtedly a starting point for a constructive revision of the workshop: to ensure that, alongside the development of technological/media skills, the cultural conditions for renegotiating the meanings with which students interpret "mediatised" reality through the creation and dissemination of Digital Storytelling can also be developed and encouraged. Supporting students to abandon the eco-chambers (Quattrociocchi, Scala, Sunstein, 2016) and thus to open themselves up towards a public discourse, in a community horizon of Mediapolis (Silverstone, 2009) and make the Net a social space of authentic and educational experience using also digital narratives. In this way, both the final digital product and the process of knowledge construction and sharing may become a meaningful, intentional, collaborative and contextualised learning mode in everyday life.

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SECTION: 6
MEDIA AND CORPORATE

Investigating Employees' Voices and Internal Communication Strategies: The Case Study of LEM Industries Group

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Abstract

The study aims at investigating the quality of relationships between companies and their employees, highlighting the value of internal communication strategies, and the perception of what communication tools and practices could be planned and implemented to inform and better engage internal publics. Indeed, the quality of employees' relations is considered strategic to increase the efficacy of the communication flows, but also to increase company reputation with prosocial activities or positive megaphoning behaviours, as well as to prevent or mitigate possible crisis. Adopting a qualitative approach, the study focuses on LEM Industries Group, an Italian corporation with the headquarter in Tuscany (Italy), involved in the development of companies active in accessories and finishes of international and national luxurious brands. Based on theories in corporate communication, public relations, and employee communications, eighteen in-depth semi-structured interviews were conducted in person with a non-probabilistic sample of employees, selected according to specific criteria, on a total of 400 current ones. Thematic analysis of findings shows interesting path of loyalty, a rare emotional attachment for the corporation, emerging bottom-up communication practices, as well as a different approach on using digital platforms and social media for employees' communication. Practical implications for top managers and communication officers are critically discussed.

Keywords: employee communication, public relations, internal communication, corporate communication

Introduction

Nowadays internal communication is considered and recognized as one of the crucial leverages for the engagement of employees in companies, and in general in complex organizations. This function, if strategically conceived, managed and planned, is not only useful for transferring information, instructions and orders within the company context, but also it strengthens the sense of belonging, creates a culture of transparency between management and collaborators, as well as encouraging identification of the values and the alignment of the objectives of the collaborators with those of the organizations (Men & Bowen, 2017; Mazzei, 2018; Mazzei, Togna, Kim, Lee & Lovari, 2019).

1. Theoretical Framework

Scholars pointed out that a people-centric logic is quickly emerging among companies in western societies, bringing collaborators together with managers to become protagonists in the life of the companies, in their successes and failures, not just commercial ones. Thus, collaborators are increasingly perceived as influential actors for the success of organizations rather than passive recipients of communication flows and management practices. Employees and collaborators become central and fundamental for the reputation of a company, for building the brand identity, as well as having a role in business innovation processes and

customer experience and satisfaction (Frandsen & Johansen, 2016). Moreover, the quality of employees' relations is today considered strategic in order to increase the efficacy of the internal communication flows, but also to nurture company reputation with prosocial activities (Dalton, 2010; Mazzei, 2018), or enhancing positive megaphoning behaviours (Mazzei et al., 2019; Kim & Rhee, 2011), also to prevent or mitigate possible crisis or emergencies (Heide & Simonsson, 2011, 2018).

Planning and performing an efficient internal communication positively affect the corporate climate, lays the foundations for improving relations with employees and collaborators, ensures the effectiveness of information flows between them and the management (Men & Bowen, 2017). The activation of the voices of collaborators through what in the literature is called the megaphoning process (Kim & Rhee, 2011), becomes central not only in the ordinary management of relationships, but also in crisis situations, both in those caused by external factors (such as the current pandemic, an environmental disaster, etc.), and from those that arise from direct corporate responsibility (such as a faulty product, incorrect behaviours of the property and / or management, non-compliance with the rules, etc.). The company's interest is to develop positive megaphoning and avoid or minimize negative voices from its employees that could damage the company's reputation, given the close connection, often the intertwine, between internal and external communication environments in contemporary communication ecosystems (Mazzei et al., 2019). The advent of digital media and social media has broadened the spectrum of tools and channels available to marketing and corporate communication (Masini, Segreto & Pasquini, 2017), with a strong impact also on activities of the company managers who are responsible for dealing with internal communication and for stimulating employee's involvement (Mazzei, 2018). In particular, the use of social media in a business context, if strategically managed, strengthens the sense of belonging and enhance the exchange of information, thus making a concrete contribution to the development of good relationships at a company level (Donadio, 2017; Freberg, 2019).

Internal communication impacts also on organizational cultures and influence the organizational climate. An organizational culture is thus strictly connected to the collaborators working for the organization, and it is shaped by employees' behaviours and attitudes (Flamholtz, 2001; Men & Bowen, 2017).

In this context this pilot study aims at investigating the quality of relationships between LEM Industries Group, an Italian corporation, and their employees. Using a qualitative method, this study focuses on internal communication strategies and the quality of relations between the corporation and their collaborators, but also among the employees themselves.

2. Methodology

Before describing the methodology of the study, it is important to give some basic information about LEM Industries Group, in order to better frame this case study, focusing especially on the market characteristics, the human resources management and the company marketing and communication approach.

LEM Industries Group is based in the province of Arezzo, in Tuscany, covering an area of 30,000 square metres with industrial plants and offices. Founded in 1974, it embraces today nine companies (see fig.1) in the development of companies active in accessories and finishes of international luxurious brands companies. It works in a business to business perspective (B2B), supplying solutions and galvanic technologies to large prestigious groups and brands of the industry, ensuring Italian craftsmanship as well as industrial quality.

At the time of the study, the corporation counted on a total of 450 current ones. LEM Industries Group's population is composed of 50% women and 50% men, collaborators belong to five different nationalities, and the average age of the employees is about 39 years.

In fall 2019, LEM Industries Group' top management decided to strategically invest in internal communication and employees' engagement activities starting a collaboration with the University of Siena and the University of Cagliari. The following study represent the first part

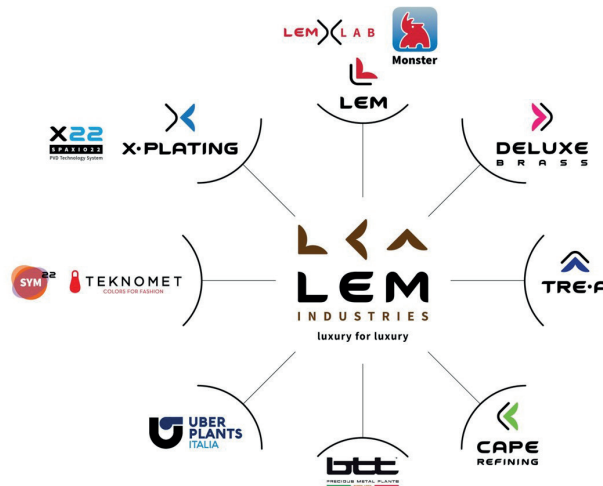


Figure 1: LEM INDUSTRIES Group brand architecture –
Source: <https://www.lemindustriesspa.com/>

of a broader research project that will involve other research activities that will have positive impacts on company's marketing and communication functions. Starting from ad hoc data collection, content analysis of primary sources and media coverage, the project will enable LEM Industries Group not only to evaluate the quality of employees relations and engagement, but also to proactively intervene with specific communication strategies.

Based on theories in corporate communication, public relations, and employee communications (Dalton, 2010; Heide & Simonsson, 2011, 2018; Jiang & Men, 2015; Kim & Rhee, 2011; Mazzei, 2010, 2015, 2018), eighteen in-depth semi-structured interviews were conducted in person with a non-probabilistic sample of employees, representing the 4.5% of LEM Industries Group' employees selected according to specific criteria (age, type of company, positive/negative attitude, date of hiring, nationality). Semi-structured interviews were chosen for the exploratory nature of the study. They were carried out in person in Fall 2019 by two independent researchers. Interviews were digitally recorded and then transcribed for the analysis. They varied in length, with an average duration of 45 minutes each. A thematic analysis of findings (Lindlof & Taylor, 2002) was carried out by the two researchers. Field notes and preliminary conclusions were discussed among the researchers who solved alternate explanations to resolve discordant conclusions. The following section reports main finding and discuss them.

3. Results

Empirical results showed a good quality of relationships within all the companies of LEM Industries Group. In more than one interview, the respect for the employee as a person has emerged as a distinctive feature of the company. However, if it is true that, in recent years, it was observed an increased capacity to listen to the needs of employees, some of those interviewed asked for a more continuous contact with top management. This could be explained by the fact that, in the last two years, LEM Industries Group has rapidly grown, in terms of share of market, employees' number, and reputation. Therefore, in the last period before the Covid-19 pandemic, the company dealt with the economic growth of the group – also with the relative growth of the company size - and the need to maintain a personal relation with each of the collaborators.

About the information flows, the study shows that the information on the management and, in general, on the LEM Industries Group, reaches employees through word of mouth with other colleagues (inside or outside the company plants) or directly from social media (electronic word of mouth). Except in exceptional cases, there was no voluntary search for information or news on the mass media (regional television, local newspapers, etc.). In this

regard it must be said that LEM Industries Group can be considered a kind of “small town company”. It has an important economic and social role on the territory; from the interviews it is clear that there are a very special and tight relations from inhabitants of the local valley and the history of the company.

Regarding instead the acquisition of information on the work to be carried out within operational contexts, it is possible to say that according to the interviewees the information transmission chain seems to work with satisfaction. Almost all the interviewees showed the satisfaction to have updated internal communication flows in the departments and plants, highlighting the use of signage and face to face meetings to facilitate the working activities.

About the communication tools currently used by the companies of the LEM Industries Group, the younger employees reported an excellent predisposition to use online platforms and digital tools, while the older ones expressed a marked preference for using traditional media, starting from the importance of reading the company house organ. But the study pointed out a common point: all the interviewees - young and old, long-time employees and new employees, managers, executives, and production workers - have expressed the desire for more opportunities for face-to-face communication. This request aligns with the decision of LEM marketing department to organize a growing number of events, in comparison with the previous years. For example, LEM industries Group usually organizes a Christmas event for all the collaborators, an open day factory where company open its plants to the family of the employees, as well as an educational training day in August, on the first working day after the summer holiday. In this way LEM industries Group aims to establish a good dialogue among all the components of the companies that are part of it. It is no coincidence that all these events were evaluated positively almost unanimously by the respondents of the study who recognized the communicative values of such initiatives.

A satisfactory evaluation was also expressed about corporate welfare policies that impact on the quality of relations between companies and their collaborators. In some cases, a real gratitude towards the company has emerged. To give some examples, the company opened an internal library named “sliding words” (see fig. 2) with different types of books that every employee can borrow to read. At the same time employees can donate books to the library, thus enriching those bought by the company.

Another topic raised in the interviews which is also related to a specific company project, is the company restaurant, intended not to be a company canteen but a real restaurant with table service and a chef, and where everyone can have a lunch together with the other company collaborators without any differences between level, hierarchy or so on. All these efforts were clearly perceived by the interviewees, and there is the awareness that the top management is investing in these activities to increase a sense of belonging to the company: LEM Industries Group should be, and is perceived, not just a place to work.

During the interviews researchers used visual metaphors as creative research tools, asking respondents to associate the company with an animal or a colour. Most of them identify LEM Industries Group with a lion and associate the corporation to the red colour. From the interviews it emerges that the lion has been mentioned in relation to LEM Industries Group for its strength, its smartness, its pride but, especially, for the ability to defend its cubs (e.g., its employees). In the words of the interviewees, the lion (and therefore LEM Industries Group) can defend its territory from enemies and to face difficult situations. Regarding the red colour it was reported in interviews because it was historically the first colour of the brand, but also because red refers to the meaning of art, passion, and the family heart. Indeed, it is clear from the analysis, that the interviewees perceived and recognized a positive organizational climate and a family environment in the company and in relation with the top management.

4. Conclusions and further step of the study

In conclusion this qualitative pilot study, despite its limitation, revealed a good quality of relationships between LEM Industries Group and its collaborators. Nevertheless, a small



Figure 2: Image of the women section of the corporate internal library “sliding words”
Source: marketing department

percentage of employees expressed complaints and highlighted criticalities during the interviews. It is important to say that the company has launched in January 2022 a second step of the broader research project in which we it was carried out an online survey aimed at listening all the employees, and at evaluating the quality of relations perceived by different types of collaborators. In this way the company will be able to see if the small percentage of complaints emerged in the qualitative phase, it is something physiological, or LEM Industries Group might have some problems to face and solve in the short time in the relations with its employees, especially important in this phase of uncertainty due to Covid-19 pandemic.

About the information seeking processes, the study highlights that collaborators of the LEM Industries Group do not seem to be linked to media and communication tools as to interpersonal relationships. The interviewees showed the need to have a multi-channel communication mix, managed by the company, with a preference for using digital channels, with content that should not only focus on operational tasks but also on corporate life and company values.

Moreover, LEM Industries Group appears as a trustworthy company, which has a strong loyalty, and it communicates a great confidence through its corporate behaviours and commercial success. Internal communication acts as an enabler to stimulate employee’s engagement, even if further activities should be implemented especially in a phase of changes and transformations as that at the time of the interviews.

5. The pandemic as accelerator for internal communication

The Covid-19 pandemic has accelerated the internal communication strategies planned by the company. The emergency forced the company to change and accelerate its procedure, and to develop new digital solutions faster to face the turbulence of markets and the fears of collaborators (Heide & Simonsson, 2018; Frandsen & Johansen, 2016).

In this scenario, in the spring of 2020, LEM Industries Group created a closed group on Facebook (“LEM SUPER FORCE”) for improving internal communication¹. In this digital environment, the company decided to reach its employees quickly using a very popular platform like Facebook. Aims of the group was to inform employees about trade union negotiations, wages, or national laws related to the health emergency related to the pandemic, since not every collaborator was informed on of what the Italian government and the health public authorities were deciding. So, through Facebook, the company created a kind of public relation office, a flexible communication hub, that gave all the information and, above all, the updates on what was happening daily in the corporation and what the top management was deciding for the future activities, during and after the lockdown. The LEM SUPER FORCE Facebook group was also used to launch specific initiatives to stimulate call to actions for employees (Masini, Segreto & Pasquini, 2017) in order to find solutions for solving problems or improving the services’ quality, thus collecting creative insights and competences in the period of the lockdown.

Moreover, in summer 2020 LEM Industries Group created an application (app), a platform for internal communication, called “LEM INDUSTRIES FORCE”, with the same name of the Facebook group to give continuity to digital internal communication activities. The goal of the new communication app was the further improvement of internal communication, thus having a positive impact on the relations between employees and the management (Mazzei, 2018). The app shares the corporate mission and the business targets, as well as it informs employees on a regular basis, regardless of their roles and locations on the various Group companies. The “LEM INDUSTRIES FORCE” application is therefore a key tool to have a common vision of the company future. At the end of the lockdown, employees needed reassurance about their future and the company’s first step was to work to ensure a better dialogue through this new communication platform. The new tool was appreciated with great enthusiasm by the employees (in terms of subscriptions, participation, sentiment, etc.) and this result confirmed the idea of the top management to create an owned media ecosystem that has as its primary goal the engagement of internal publics.

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1 In Italy, from the end of March until the first week of May, there was a national lockdown decided by the government and most of the companies and production lines were closed, including those of LEM Industries Group.

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The Influence of Television Programme Scheduling Strategies on Audience Preferences of Television Stations in Nigeria

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Abstract

The study 'The Influence of Television Programme Scheduling Strategies on Audience Preferences of Television Stations in Nigeria' is set out to analyze television scheduling strategies in order to determine which influence audience preference of programmes and television stations. The study is anchored on Uses and Gratification and consumer behaviour theories. Survey was employed to determine audience preference of television stations and possibly the strategies that influence these preferences. Using census, random, purposive and stratified sampling techniques, the study surveyed 385 audiences. To analyse the data from the study, descriptive statistical and percentages for the survey were employed. The study found out that; the audiences most preferred television station in Nigeria is *Channels TV*, followed by *Nigerian Television Authority (NTA)* and then *African Independent Television (AIT)* due to the television stations' programmes and a number of programme strategies. The study recommends that television stations in Nigeria should use the influential programme strategies realized from this work to increase audience patronage of their television stations. Therefore, audience need for information requires them to search for a programme and the environment of the audience will enable him to choose the available programmes depending on the service quality parameters which will influence the audience returning to the television station or not.

Keywords:: Audience, Television, Programmes Audience Preference and Scheduling Strategies.

Introduction

Programmes are essential elements of television broadcasting. Programmes are largely responsible for a television station's rating and revenue. Eastman, Ferguson, & Klein, (2013) indicate that programmes help stations to stay afloat in the midst of stiff competition. In the same light, Pongiannan (2012) assert that programming when poorly handled leads to a loss of audience. Eastman *et al.*, (2013) submit that the simultaneous loss in revenue generation can be the death of a television station.

In television stations globally, the department responsible for arranging programmes 'is the place where power lies' (Ihlebaek, Syvertsen, & Ytreberg, 2014). This is premised on Pringle & Starr, (2006) submission that of all the factors that determine the financial success of a radio or television station, none is more important than programming. Programmes are therefore, key in the management of a television station as they are capable of changing the fortunes of the stations.

Although how and what kind of programmes a station produces or presents is determined by four influencers: audience, advertiser, regulator and the broadcaster (Pringle & Starr, 2006), the audience is key among these factors. Pringle & Starr, (2006,) establish that success in television programming rests heavily on the 'ability to produce or buy programmes with audience appeal, air them at times when they can be seen by the audience to which they appeal, and build individual programmes into a schedule that encourages viewers to tune to the station and remain with it from one programme to another'. Thus, Eastman & Ferguson, (2012) submits that, only successful programming win large audience to television.

Television programmes are produced by programme producers and television station managers to satisfy audience which is the core objective of every television station. The deregulation and digitalisation of television stations in Nigeria has given birth to so many private and

public owned television stations whose challenge is to capture a big share of the viewing audience (Ugande, 2013; Asekun-Olarinmoye, Uwom, Chioma, & Olatunbosun, 2014). Nigerians are now exposed to numerous public and private television stations including *Channels TV*, *Africa Independent Television* (AIT), *Nigerian Television Authority* (NTA), *Galaxy TV*, *Silver Bird TV*, to mention but a few (Akinwalere, 2013; Chioma, 2014). Alhassan & Kwakwa, (2013) recognizes that the implication of growth in the number of television stations is tight competition among the stations for viewership.

According to Udende, Abdulraheem & Oyewo (2014), the competition among television stations is higher when the television stations have similar programming objectives and television scheduling strategies. For instance, *AIT*, *Channels TV* and *NTA* have similar programmes during the same time of the day, especially at peak time. Obono & Madu, (2014) asserts that the deregulation of television in Nigeria has opened floor for competitive content, stations offering the same kind of programme at same time with similar strategies making it tougher for audience to choose among the available. This has given rise to competition amongst the television stations too as each station desire to earn higher audience rating. Most television stations provide news programmes in the morning, entertainment and news in the evening. Eastman *et al.*, (2013) submits that Audience has been the king whom all the television stations want to serve and the only way to achieve this objective is through effective programming.

The aspects for which television stations compete according to Eastman *et al.*, (2013) are: which station will get the highest audience ratings, at what time (day part) and what kind of audience (demographic) in terms of (age, sex, income, educational qualification, profession, religion). Each television station wants to have the highest number of audience during peak hours and the right demographics to attract and capture advertisers. Hence, competitive planning to Ihlebaek *et al.*, (2014) becomes visible in a number of aggressive scheduling and programming strategies to create audience flow.

Therefore, the television audience is divided among the competitive television stations. This to a large extent favours television stations with programmes and television strategies that appeal to the audience. For that Nigerian television stations are faced with the challenge of understanding these strategies for which influence audience preference to stations and reflecting such strategies in their programming. More so, Onyekosor & Nwankpa (2014) have established that television audience are emotionally, psychologically, culturally and intellectually different. These differences affect the preference they give to one television programme against another, and their preference determines the extent of exposure they give to a television station.

Several studies have shown that quality programming is the basic strategy that motivates audience to watch television stations (Lee & Lewis, 2012; Eastman & Ferguson, 2012; Udende *et al.*, 2014; Obono & Madu, 2014). Television stations therefore, are always coming up with more creative programmes to effectively compete with other stations for audience. Apart from quality programmes, Nwabueze, Nweke, Okowa-Nwaebi and Ebeze (2012) say, there are other television programme factors like time, presenters, demographics and positive values that also motivate audience exposure and preference, they emphasize on high programming and not just quality programmes. Udende *et al.*, (2014) establish that where there are similar programmes and scheduling times, the audience rely on the television strategies to choose a station over others. And for the fact that audience ratings are more or less the blood line of television stations, 'To enjoy high ratings or viewership and audience-flow literarily means money from advertisers' (Adesemoyo, & Idowu, 2015). In fact, the primary purpose of programming in the broadcast media is to attract and hold the audience to the medium or television stations (Pringle & Starr, 2013; Eastman *et al.*, 2013) but whether television stations in Nigeria recognise audience preferences and apply the right television strategies that influence audience when scheduling programmes is not very clear.

The preferences of audience according to Lee & Lewis, (2012) have been insignificant to the news process, journalists (media producers) are now becoming more aware of and adaptive to consumer tastes. Although, Lee & Lewis, (2012) specifically states that journalists rationalize

and reduce the audience to a quantifiable aggregate. This in no way give details of what the audience may prefer and why they prefer one programme or a television station to another. Lee and Lewis' (2012) argument suggest that although it is good that media producers are starting to appreciate the consumer taste (audience preferences/choices), it is not enough to just count how many audiences watch a programme but to establish 'the why'. In this regard, Tandoc, (2014); Hong, (2013); Less & Lewis, (2012) emphasize that television stations need to understand that audience have preferences and to know what the preferences are is important in order to serve them better.

Media research in Nigeria has concentrated on the effect of television on audience behaviour (Adesemoye & Idowu, 2015; Obono & Madu, 2010; Onabajo, 2007), effect of television advertising on children and learning (Allan, 2008; Chioma, 2014;) the role of television during elections (Rodney, 2004; Usaini, 2017), among others. Only few have given attention to audience choice of television and audience ratings (Udende et al., 2014). Although GeoPoll (2015) has establish that *AIT*, *Channels TV* and *NTA* are the most viewed television stations in Nigeria and Udende et al., (2014) say they have similar news programmes in the morning and evening hours. The methodology does not establish the actual reasons for audience decision to prefer one or some television stations over others; more importantly is what influences the audience preference when the television stations have the same or similar programmes? There exists a gap then on what programmes and programmes scheduling strategies do to the choices of audience amidst a plethora of television stations with similar programmes.

Audience is important and crucial in the process of programming although producers and programmers used to recognize audience only after the production when it was time to watch the programmes. This notion is no longer valid as audiences are not only active users who choose programmes according to their preferences, but king of programming that should be served (Tandoc, 2014; Hong, 2013; Less & Lewis, 2012). Audience know exactly what they want and this 'want' has to be met by television stations or producers. Although it becomes tougher when many television stations meet audience needs using similar programming strategies.

Several television stations in Nigeria occupy the airspace with the objective of meeting audience needs and preferences through programmes as observe by Obono & Madu, (2010). As a result, the television stations are competing for the same audience especially in the morning and evening when a lot of audience are available to watch television. In the morning between 6am and 9am, Nigerian audience have magazine programmes that focuses on Nigerian affairs from three television stations and in the evening between 7pm and 10pm Nigerian audience have three 'news hour' programmes to choose from. What really influences audience preference of one of these television programme as they are similar, which scheduling strategies do the trick more than others?

1. Theoretical Background

The uses & gratification gives the audience absolute power to do what they want with the media while the consumer theory indicates that audience preference depend on psychology, personal characteristics and physical environment of the audience to choose media content Solomon, Bamossy, Askegaard & Hogg, (2010). The two theories are concentrating on the audience; while uses and gratification address the desire and satisfaction of the audience, the consumer theory looks at the behaviour and aspects of an individual that influences media use. Kim & Viswanathan (2015) provides two perspectives' on how audience can be influenced to prefer a programme or television station. The individual and structural perspectives to mean; audience demographic, and the activities of television station respectively. Although Kim & Viswanathan (2015) in their model captures media institutions, the attention is not on how the media institution influences audience and it is still unclear what level of influence this has on audience preference of media or content. Therefore, the hypothesis for this study is therefore;

There is no significant relationship between television programmes and audience preference of stations in Nigeria.

2. Methods of Data Collection and Analysis

The research employed survey method to elucidate information from the television audience in Nigeria to find out the programme strategies that influence their preference of a television station. Nigeria was stratified into seven, the six geo-political zones including Abuja which is the capital city hosting the major television stations in Nigeria. The research adopted a sample size of 385 derived from Survey Monkey, an online calculator using a total of 6,959,790 at a confidence level of 95% with 5% error margin which the result was 385. The proportionate and purposive sampling techniques to distribute questionnaires among audience in urban cities.

Table 1: Proportionate Sample of the Selected States

State - Urban City	Population	Proportion selected
Akwa-Ibom	905,492	50
Enugu	859,109	48
Kano	1,446,326	80
Lagos	2,519,514	139
Nassarawa	630,483	35
Taraba	458,739	25
Abuja	140,127	8
Total	6,959,790	385

Source: Survey, 2017

The researcher used descriptive statistics frequency counts and percentages to analyze the survey data with the aid of Statistics Packages for Social sciences (SPSS) computer programme. The result is presented in bar chart and a cross tabulation of some scales presented in tables. Inferential statistics using Pearson Product-Moment Correlation Coefficient (R) was used to analyze the hypothesis formulated while t-test was used to confirm the result of the Product-Moment Correlation Coefficient in this study (Vetrivel & Muthulakshmi, 2011).

3. Results: Data Presentation

Table 2: How Programmes influence Audience according the Television Stations

Variable	No. of Respondents							Total
	Lagos	Kano	Ak-wa-Ibom	Enugu	Nasarawa	Taraba	Abuja	
Station's Integrity								
NTA								
Highly Influential	73	40	25	25	21	18	6	208
	52.5	50.0	50.0	52.1	60.0	72.0	75.0	54.0
Moderately Influential	39	26	16	15	8	4	2	110
	28.1	32.5	32.0	31.3	22.9	16.0	25.0	28.6
Lowest Influence	19	9	6	5	4	2		45
	13.7	11.3	12.0	10.4	11.4	8.0	0.0	11.7
Not Influential	8	5	3	3	2	1		22
	5.8	6.3	6.0	6.3	5.7	4.0	0.0	5.7
Total	139	80	50	48	35	25	8	385

Variable	No. of Respondents							Total
	Lagos	Kano	Ak-wa-Ibom	Enugu	Nasarawa	Taraba	Abuja	
	100	100	100	100	100	100	100	100
Channels TV								
Highly Influential	104	57	35	34	23	17	5	275
	74.8	71.3	70.0	70.8	65.7	68.0	62.5	71.4
Moderately Influential	25	16	9	9	7	4	2	72
	18.0	20.0	18.0	18.8	20.0	16.0	25.0	18.7
Lowest Influence	7	5	4	4	3	3	1	27
	5.0	6.3	8.0	8.3	8.6	12.0	12.5	7.0
Not Influential	3	2	2	1	2	1		11
	2.2	2.5	4.0	2.1	5.7	4.0	0.0	2.9
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
AIT								
Highly Influential	65	45	31	29	22	16	4	212
	46.8	56.3	62.0	60.4	62.9	64.0	50.0	55.1
Moderately Influential	44	21	11	10	7	6	2	101
	31.7	26.3	22.0	20.8	20.0	24.0	25.0	26.2
Lowest Influence	21	8	5	7	5	2	1	49
	15.1	10.0	10.0	14.6	14.3	8.0	12.5	12.7
Not Influential	9	6	3	2	1	1	1	23
	6.5	7.5	6.0	4.2	2.9	4.0	12.5	6.0
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Feedback Opportunity								
NTA								
Highly Influential	31	22	12	11	8	5	2	91
	22.3	27.5	24	22.9	22.9	20	25	23.6
Moderately Influential	87	45	29	28	19	16	5	229
	62.6	56.3	58.0	58.3	54.3	64.0	62.5	59.5
Lowest Influence	12	9	6	7	5	3	1	43
	8.6	11.3	12.0	14.6	14.3	12.0	12.5	11.2
Not Influential	9	4	3	2	3	1		22
	6.5	5.0	6.0	4.2	8.6	4.0	0.0	5.7
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Channels TV								
Highly Influential	38	18	9	8	6	4	2	85
	27.3	22.5	18.0	16.7	17.1	16.0	25.0	22.1
Moderately Influential	79	42	30	28	23	17	4	223
	56.8	52.5	60.0	58.3	65.7	68.0	50.0	57.9
Lowest Influence	17	12	7	8	4	3	1	52
	12.2	15.0	14.0	16.7	11.4	12.0	12.5	13.5
Not Influential	5	8	4	4	2	1	1	25
	3.6	10.0	8.0	8.3	5.7	4.0	12.5	6.5
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
AIT								
Highly Influential	39	20	13	12	5	3	1	93
	28.1	25.0	26.0	25.0	14.3	12.0	12.5	24.2
Moderately Influential	78	45	28	27	20	14	4	216
	56.1	56.3	56.0	56.3	57.1	56.0	50.0	56.1
Lowest Influence	15	11	6	7	7	6	2	54

Variable	No. of Respondents							Total
	Lagos	Kano	Ak-wa-Ibom	Enugu	Nasarawa	Taraba	Abuja	
	10.8	13.8	12.0	14.6	20.0	24.0	25.0	14.0
Not Influential	7	4	3	2	3	2	1	22
	5.0	5.0	6.0	4.2	8.6	8.0	12.5	5.7
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Scheduling Time								
NTA								
Highly Influential	21	11	8	8	3	2	1	54
	15.1	13.8	16.0	16.7	8.6	8.0	12.5	14.0
Moderately Influential	75	41	23	21	17	15	4	196
	54.0	51.3	46.0	43.8	48.6	60.0	50.0	50.9
Lowest Influence	31	21	13	14	11	6	3	99
	22.3	26.3	26	29.2	31.4	24	37.5	25.7
Not Influential	12	7	6	5	4	2		36
	8.6	8.8	12.0	10.4	11.4	8.0	0.0	9.4
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Channels TV								
Highly Influential	35	18	11	12	9	7	3	95
	25.2	22.5	22.0	25.0	25.7	28.0	37.5	24.7
Moderately Influential	89	43	32	31	22	16	4	237
	64.0	53.8	64.0	64.6	62.9	64.0	50.0	61.6
Lowest Influence	12	15	5	4	3	1	1	41
	8.6	18.8	10.0	8.3	8.6	4.0	12.5	10.6
Not Influential	3	4	2	1	1	1		12
	2.2	5.0	4.0	2.1	2.9	4.0	0.0	3.1
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
AIT								
Highly Influential	29	14	7	5	5	3	1	64
	20.9	17.5	14.0	10.4	14.3	12.0	12.5	16.6
Moderately Influential	78	40	30	31	24	18	4	225
	56.1	50.0	60.0	64.6	68.6	72.0	50.0	58.4
Lowest Influence	21	17	9	9	4	3	2	65
	15.1	21.3	18.0	18.8	11.4	12.0	25.0	16.9
Not Influential	11	9	4	3	2	1	1	31
	7.9	11.3	8.0	6.3	5.7	4.0	12.5	8.1
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Programme Type/Format								
NTA								
Highly Influential	41	29	16	15	9	6	2	118
	29.5	36.3	32	31.3	25.7	24	25	30.6
Moderately Influential	75	41	25	26	21	16	5	209
	54.0	51.3	50.0	54.2	60.0	64.0	62.5	54.3
Lowest Influence	17	7	6	5	3	2	1	41
	12.2	8.8	12.0	10.4	8.6	8.0	12.5	10.6
Not Influential	6	3	3	2	2	1		17
	4.3	3.8	6.0	4.2	5.7	4.0	0.0	4.4
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100

SECTION: 6 - MEDIA AND CORPORATE

Variable	No. of Respondents							Total
	Lagos	Kano	Ak-wa-Ibom	Enugu	Nasarawa	Taraba	Abuja	
Channels TV								
Highly Influential	39	25	14	13	6	4	1	102
	28.1	31.3	28.0	27.1	17.1	16.0	12.5	26.5
Moderately Influential	83	43	27	28	24	18	6	229
	59.7	53.8	54.0	58.3	68.6	72.0	75.0	59.5
Lowest Influence	13	8	7	6	4	2		40
	9.4	10.0	14.0	12.5	11.4	8.0	0.0	10.4
Not Influential	4	4	2	1	1	1	1	14
	2.9	5.0	4.0	2.1	2.9	4.0	12.5	3.6
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
AIT								
Highly Influential	34	21	12	11	5	2	1	86
	24.5	26.3	24.0	22.9	14.3	8.0	12.5	22.3
Moderately Influential	89	51	30	31	26	21	5	253
	64.0	63.8	60.0	64.6	74.3	84.0	62.5	65.7
Lowest Influence	13	6	5	4	3	1	2	34
	9.4	7.5	10.0	8.3	8.6	4.0	25.0	8.8
Not Influential	3	2	3	2	1	1		12
	2.2	2.5	6.0	4.2	2.9	4.0	0.0	3.1
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Response to Feedback								
NTA								
Highly Influential	29	15	9	8	3	1		65
	20.9	18.8	18.0	16.7	8.6	4.0	0.0	16.9
Moderately Influential	93	50	35	36	27	21	6	268
	66.9	62.5	70.0	75.0	77.1	84.0	75.0	69.6
Lowest Influence	13	11	5	3	4	2	2	40
	9.4	13.8	10.0	6.3	11.4	8.0	25.0	10.4
Not Influential	4	4	1	1	1	1		12
	2.9	5.0	2.0	2.1	2.9	4.0	0.0	3.1
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Channels TV								
Highly Influential	46	31	19	18	15	11	3	143
	33.1	38.8	38.0	37.5	42.9	44.0	37.5	37.1
Moderately Influential	78	40	27	26	17	13	5	206
	56.1	50.0	54.0	54.2	48.6	52.0	62.5	53.5
Lowest Influence	12	7	3	3	2	1		28
	8.6	8.8	6.0	6.3	5.7	4.0	0.0	7.3
Not Influential	3	2	1	1	1			8
	2.2	2.5	2.0	2.1	2.9	0.0	0.0	2.1
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
AIT								
Highly Influential	23	13	8	7	2	2		55
	16.5	16.3	16.0	14.6	5.7	8.0	0.0	14.3
Moderately Influential	95	52	36	35	29	20	6	273
	68.3	65.0	72.0	72.9	82.9	80.0	75.0	70.9
Lowest Influence	14	10	5	4	3	2	1	39
	10.1	12.5	10.0	8.3	8.6	8.0	12.5	10.1
Not Influential	7	5	1	2	1	1	1	18

Variable	No. of Respondents							Total
	Lagos	Kano	Ak-wa-Ibom	Enugu	Nasarawa	Taraba	Abuja	
	5.0	6.3	2.0	4.2	2.9	4.0	12.5	4.7
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Accessibility								
NTA								
Highly Influential	37	28	17	17	11	7	3	120
	26.6	35.0	34.0	35.4	31.4	28.0	37.5	31.2
Moderately Influential	88	44	29	26	21	15	5	228
	63.3	55.0	58.0	54.2	60.0	60.0	62.5	59.2
Lowest Influence	11	6	3	4	2	2		28
	7.9	7.5	6.0	8.3	5.7	8.0	0.0	7.3
Not Influential	3	2	1	1	1	1		9
	2.2	2.5	2.0	2.1	2.9	4.0	0.0	2.3
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Channels TV								
Highly Influential	52	29	24	23	15	10	4	157
	37.4	36.3	48.0	47.9	42.9	40.0	50.0	40.8
Moderately Influential	79	47	25	24	17	14	4	210
	56.8	58.8	50.0	50.0	48.6	56.0	50.0	54.5
Lowest Influence	7	3	1	1	2	1		15
	5.0	3.8	2.0	2.1	5.7	4.0	0.0	3.9
Not Influential	1	1			1			3
	0.7	1.3	0.0	0.0	2.9	0.0	0.0	0.8
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
AIT								
Highly Influential	34	26	15	14	8	5	2	104
	24.5	32.5	30.0	29.2	22.9	20.0	25.0	27.0
Moderately Influential	93	49	31	28	23	16	4	244
	66.9	61.3	62.0	58.3	65.7	64.0	50.0	63.4
Lowest Influence	9	4	3	4	3	3	2	28
	6.5	5.0	6.0	8.3	8.6	12.0	25.0	7.3
Not Influential	3	1	1	2	1	1		9
	2.2	1.3	2.0	4.2	2.9	4.0	0.0	2.3
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Programme Coverage								
NTA								
Highly Influential	79	41	29	27	21	14	4	215
	56.8	51.3	58.0	56.3	60.0	56.0	50.0	55.8
Moderately Influential	47	30	15	14	11	8	3	128
	33.8	37.5	30.0	29.2	31.4	32.0	37.5	33.2
Lowest Influence	9	7	5	5	2	3	1	32
	6.5	8.8	10.0	10.4	5.7	12.0	12.5	8.3
Not Influential	4	2	1	2	1			10
	2.9	2.5	2.0	4.2	2.9	0.0	0.0	2.6
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Channels TV								
Highly Influential	103	61	39	35	25	17	6	286
	74.1	76.3	78	72.9	71.4	68	75	74.3
Moderately Influential	28	15	8	9	8	6	2	76

SECTION: 6 - MEDIA AND CORPORATE

Variable	No. of Respondents							Total
	Lagos	Kano	Ak-wa-Ibom	Enugu	Nasarawa	Taraba	Abuja	
	20.1	18.8	16.0	18.8	22.9	24.0	25.0	19.7
Lowest Influence	7	3	2	3	2	2		19
	5.0	3.8	4.0	6.3	5.7	8.0	0.0	4.9
Not Influential	1	1	1	1				4
	0.7	1.3	2.0	2.1	0.0	0.0	0.0	1.0
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
AIT								
Highly Influential	72	37	24	25	17	12	4	191
	51.8	46.3	48	52.1	48.6	48	50	49.6
Moderately Influential	52	32	18	15	10	8	3	138
	37.4	40.0	36.0	31.3	28.6	32.0	37.5	35.8
Lowest Influence	10	8	6	7	6	4	1	42
	7.2	10.0	12.0	14.6	17.1	16.0	12.5	10.9
Not Influential	5	3	2	1	2	1		14
	3.6	3.8	4.0	2.1	5.7	4.0	0.0	3.6
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Programme Originality								
NTA								
Highly Influential	79	39	26	25	18	14	5	206
	56.8	48.8	52.0	52.1	51.4	56.0	62.5	53.5
Moderately Influential	46	31	21	16	11	7	2	134
	33.1	38.8	42.0	33.3	31.4	28.0	25.0	34.8
Lowest Influence	11	8	2	5	4	3	1	34
	7.9	10.0	4.0	10.4	11.4	12.0	12.5	8.8
Not Influential	3	2	1	2	2	1		11
	2.2	2.5	2.0	4.2	5.7	4.0	0.0	2.9
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Channels TV								
Highly Influential	92	45	33	32	23	17	6	248
	66.2	56.3	66.0	66.7	65.7	68.0	75.0	64.4
Moderately Influential	38	23	10	9	8	5	2	95
	27.3	28.8	20.0	18.8	22.9	20.0	25.0	24.7
Lowest Influence	7	8	5	5	3	2		30
	5.0	10.0	10.0	10.4	8.6	8.0	0.0	7.8
Not Influential	2	4	2	2	1	1		12
	1.4	5.0	4.0	4.2	2.9	4.0	0.0	3.1
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
AIT								
Highly Influential	53	31	17	15	13	9	3	141
	38.1	38.8	34.0	31.3	37.1	36.0	37.5	36.6
Moderately Influential	74	42	27	28	18	13	4	206
	53.2	52.5	54.0	58.3	51.4	52.0	50.0	53.5
Lowest Influence	9	5	4	4	3	2	1	28
	6.5	6.3	8.0	8.3	8.6	8.0	12.5	7.3
Not Influential	3	2	2	1	1	1		10
	2.2	2.5	4.0	2.1	2.9	4.0	0.0	2.6
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Religious/Cultural Reason								

Variable	No. of Respondents							Total
	Lagos	Kano	Ak-wa-Ibom	Enugu	Nasarawa	Taraba	Abuja	
NTA								
Highly Influential	42	31	16	14	12	10	3	128
	30.2	38.8	32.0	29.2	34.3	40.0	37.5	33.2
Moderately Influential	68	35	27	29	17	12	4	192
	48.9	43.8	54.0	60.4	48.6	48.0	50.0	49.9
Lowest Influence	21	11	5	4	4	2	1	48
	15.1	13.8	10.0	8.3	11.4	8.0	12.5	12.5
Not Influential	8	3	2	1	2	1		17
	5.8	3.8	4	2.1	5.7	4	0	4.4
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Channels TV								
Highly Influential	51	37	20	17	14	11	3	153
	36.7	46.3	40.0	35.4	40.0	44.0	37.5	39.7
Moderately Influential	65	31	23	24	16	13	5	177
	46.8	38.8	46.0	50.0	45.7	52.0	62.5	46.0
Lowest Influence	16	9	5	4	4	1		39
	11.5	11.3	10.0	8.3	11.4	4.0	0.0	10.1
Not Influential	7	3	2	3	1			16
	5.0	3.8	4.0	6.3	2.9	0.0	0.0	4.2
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
AIT								
Highly Influential	37	29	13	11	9	7	2	108
	26.6	36.3	26.0	22.9	25.7	28.0	25.0	28.1
Moderately Influential	79	43	29	31	20	14	5	221
	56.8	53.8	58.0	64.6	57.1	56.0	62.5	57.4
Lowest Influence	17	6	5	4	5	3	1	41
	12.2	7.5	10.0	8.3	14.3	12.0	12.5	10.6
Not Influential	6	2	3	2	1	1		15
	4.3	2.5	6.0	4.2	2.9	4.0	0.0	3.9
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100
Total	139	80	50	48	35	25	8	385
	100	100	100	100	100	100	100	100

Source: Field Work, 2018.

Table 2 provides result for the strategies that influence the audience preference of one television station over another in Nigeria. Television programme strategies such as station's integrity, feedback opportunity, scheduling time, programme type/format, response to feedback, accessibility, programme coverage, programme originality, and religious/cultural factor, have contributed to audience preference of television stations in Nigeria and even though the level of influence varies according to stations, on a general note, such contribution was to a great extent. This is evident as the majority (54%) proportion of the respondents said station's integrity was one of the strategies that highly influenced them to NTA as against a minority (29%) of them who were influenced but moderately though to the NTA Channel based on its integrity, 12% of them who were influenced but to the lowest level, and 6% minority of them who were not influenced at all; for Channels TV, those highly influenced to the station due to its integrity were 71%, as against 19% minority of them who were moderately influenced due to the same factor, lowest influenced were 7%, while not influenced due to the same factor were 3%; for

AIT, majority (55%) proportion of the respondents were influenced to the *AIT* due to its integrity as against the minority (26%) who were influenced but moderately though due to the same factor, those that were influenced but to the lowest level were 13%, while not influenced were 6% respectively. Comparatively, audience preference of television stations in Nigeria is due largely to the integrity of the station and *Channels TV* (71%) was known to influence people more as a result of its integrity than *NTA* (54%) and *AIT* (55%); Concerning the feedback opportunity, for *NTA*, 24% of the respondents were highly influenced by the feedback opportunity *NTA* granted to them, 59% of the respondents were moderately influenced as a result of that, 11% were influenced but to the lowest level, and 6% of the respondents were not influenced by this factor; for *Channels TV*, 22% of the respondents were highly influenced to *Channels TV* due to its feedback opportunity granted to them, 60% of the respondents were moderately influenced, 14% of the respondents were influenced but to the lowest level, 7% of the respondents were not influenced to *Channels TV* due to that factor; for *AIT*, those highly influenced to the station due to its feedback opportunity were 24%, moderately influenced were 56%, 14% were influenced but to the lowest level, while not influenced at all were 6%. Comparatively, the preference of both audience of the stations sampled (*NTA*, *Channels TV* and *AIT*) to those stations was due to the feedback opportunity granted to them in moderation.

On how scheduling time influences audience preference of the television stations, for *NTA*, 14% of the respondents were highly influenced to *NTA* due to its scheduling time, 51% of the respondents were moderately influenced to *NTA* as a result of the same reason, 26% of the respondents were influenced but to the lowest level due to that reason, while those not influenced were 9%; for *Channels TV*, 25% of the respondents said scheduling time of the *Channels TV* highly influenced them to the station, 62% of the respondents said they were moderately influenced to *Channels TV* for the same reason, 11% out of the respondents were influenced to the *Channels TV* due to the same reason but to the lowest level, while 3% respondents were not influenced at all; for the *AIT*, 17% of the respondents were highly influenced by the *AIT*'s scheduling time, 58% of them were moderately influenced to *AIT* due to its scheduling time, 17% of the respondents were influenced but to the lowest level due to the same factor, while 8% of the respondents said they were not influenced to *AIT* due to that same factor. Concerning programme type/format as one of the strategies employed by the television stations to influence audience to such stations, for *NTA*, 31% of the respondents sampled in the study were highly influenced to *NTA* due to this factor, 54% of them were moderately influenced, lowest influenced were 11%, while 4% were not influenced; for *Channels TV*, 26% of them were highly influenced, 60% were influenced moderately, lowest influenced were 10%, while not influenced were 4%; for *AIT*, 22% of the respondents were highly influenced; moderately influenced were 66%, lowest influenced were 9%, while not influenced were 3%.

Concerning how response to feedback was one of the strategies to influence audience to television stations, for *NTA*, 17% of the respondents said response to feedback influenced them to *NTA*, 70% of the respondents said it was moderately that the factor influenced them, those influenced but at the lowest were 10%, and not influenced were 3%; for *Channels TV*, 37% of the respondents were highly influenced to the *Channels TV* due to its response to feedback, 54% of them were moderately influenced as a result of the same reason, 7% of the respondents were influenced but at the lowest level, while 2% of them were not influenced; for *AIT*, 14% of the respondents were highly influenced to the *AIT* due to its response to feedback, 71% were moderately influenced, lowest influenced were 10% while not influenced were 5%.

On accessibility to station's signals and programmes as one of the strategies that influence audience members to television stations, for *NTA*, 31% of the respondents their accessibility to signals and programmes on *NTA* highly influenced them to the station, 59% of them said they were moderately influenced, lowest influenced were 7%, while not influenced were 2%; for *Channels TV*, 41% of the respondents were highly influenced due to the station's signal accessibility, 59% of them were moderately influenced, lowest influenced were 5%, while not influenced was just 1%; for *AIT*, 50% of the respondents were highly influenced, 36% of them

were influenced moderately, 11% were not influenced, while not influence constituted 4% of the respondents.

On the station's programme originality as the programme strategy that influences audience to television stations, for *NTA*, 54% of the respondents said they were highly influenced to *NTA* due to its programme originality, 35% of the respondents moderately influenced to *NTA* due to the same reason, 9% of the respondents were influenced but to the lowest level, while 3% of them were not influenced at all; for *Channels TV*, 64% of the respondents were highly influenced to *Channels TV* due to its originality of the programmes, those moderately influenced were 25%, lowest influenced were 8%, while not influenced were 3%; for *AIT*, 37% of the respondents were highly influenced by the programmes of the *AIT* due to the originality of its programmes, 54% of the respondents were moderately influenced, lowest influenced were 7%, while not influenced were 3% respectively. On how religion/culture was a programme strategy of the television stations that influences audience to such stations, for *NTA*, 33% of the respondents said it highly influenced them to *NTA*, 50% of the respondents were of the opinion that the strategy moderately influenced them, 13% of the respondents said the strategy influenced them but to the lowest level, while 4% of the respondents said the strategy did not influence them; for *Channels TV*, 40% were of the opinion that the strategy highly influenced them, 46% of the respondents said the strategy moderately influenced them, lowest influenced by the strategy to the *Channels TV* were 10%, while 4% were not influenced; for *AIT*, the strategy was highly influential to 28%, moderately influential to 57%, less influential to 11%, and not influential to 4% of the total respondents sampled.

Data in table 2 were used to test the null hypothesis of this study. Pearson Product-Moment Correlation Coefficient (R) was used to test the null hypothesis to establish the extent or strength of the relationship or association between the programme strategies used by television stations and audience preference of such stations, while inferential technique was used for the analysis of the results of the hypothesis. The result of the null hypothesis shows a very strong correlation (r) coefficient value of 0.99, indicating the existence of a significant relationship or association between the programme strategies used by television stations in Nigeria and audience preference of such stations, while the calculated t_{value} (24.24) which was greater than the $t_{\text{table-value}}$ (4.30) at 95%, meaning that the null hypothesis which states that "There is no significant relationship between the programme strategies utilize by Television Stations and the audience preference of such stations in Nigeria" is rejected.

It implies from the result of this hypothesis that the programme strategies utilize by television stations have significant relationship with audience preference of such stations. In other words, how best a television station produces programmes to satisfy the desired needs of its audience to a very large extent determine the degree of audience preference to such television station.

4. Discussion of Results

The effect that television programme strategies such as station's integrity, feedback opportunity, scheduling time, programme type/format, response to feedback, accessibility, programme coverage, programme originality among others contribute to audience preference of television stations in Nigeria and even though the level of influence varies according to stations, on a general note, such contribution was to a great extent. For instance, the audience prefers *Channels TV* because the television station provides credible programmes and as such programmes are presented with integrity. This is because the audience prefers the television station for providing quality programmes, broadcasting the category of programmes the audience most prefer and the audience trust *Channels TV* irrespective of the programmes they offer. The audience also prefers *Channels TV* due to the television station's programme coverage and station's reach/accessibility. The television station can be accessed on all the signal options and has a wide coverage of the programme contents. These strategies are embedded in tele-

vision programming; the planning, placing and evaluating of programmes therefore, they all influence audience preference of a television station.

This finding aligns with the position of previous scholars like Onah in Pongiannan, (2012) who outlined many factors that affect the preference of a television station saying that, the quality of the picture and sound makes the audience happy with a television station and as such would prefer her programmes to others. This means the quality of programme picture, sound and access has influenced audience preference for *Channels TV* over other television station. Similarly, Alhassan & Kwakwa (2013) state that no matter how wonderful the imaging and audio of television station is, it is vital for such a station to be known (enabling its accessibility). Enli's (2012) established that due to multi-platform formats the programme host encourages audience to engage via digital return channels and audience are expected to provide feedback on programmes. The influential level of credibility conforms to Udende *et al.*, (2015) research which revealed that audience preference for news was due to the television's trust. This view is same to Alhassan & Kwakwa (2013) who revealed that audience choose media that involve them.

Therefore, it means that the preferences of a television programme depend on these programme strategies and the preferred programme influences audience preference for the television station that broadcast the preferred programmes. This means television preference does not depend only on the needs of audience as asserts by uses and gratification theory but the identified programmes strategies broadly categorized as individual and structural factors as established by audience flow model (Kim & Viswanathan 2015). Specifically, in agreement to the result found in this study is Bhat's (2015) who established that factors range from non-availability of substitutes television stations at a time and the wide coverage of the events that take place in the audience environment influences them to view and prefer such medium. Similarly, Alhassan & Kwakwa (2013) identify overall image of the station, clear reception, station heritage, news coverage and kinds of programme as very influential factors for audience to choice. Finally, Nwabueze *et al.*, (2012) in their study established that high quality is the reason for audience to choose foreign television over Nigerian therefore seeking for improvement of service delivery for programmes.

5. Conclusion

Consequently, the findings in the study concluded that television programmes influence the audience preference of television stations in Nigeria greatly. Although the preference of a television programme is manipulated by certain factors important to audience; the study has outlined the factors as programme strategies which if a television station employs will certainly lure the audience preference. This means if the audience choose a programme there is significance that they will also prefer the television station that broadcasts the programme. The findings also establish that programme Integrity, programme feedback medium, programme scheduling time, programme category / type, the programmers' response to feedback, programme accessibility, the programme coverage, programme originality and programme religious/cultural bias have significant relationship with one another as they influence audience preference of programmes. All the nine (9) identified programme strategies indicate the service quality provided by television stations in Nigeria for the audience. Therefore, the programme strategies according to this study are also the parameters for audience to check programme quality for audience preferences.

This study has taken Kim & Viswanathan (2015) direction to include both structural and personal perspectives but has gone further to establish how these factors influence the preference of media or content providing strategies for programmers to deliver service quality and the parameters for audience preference of programmes. Therefore, according to these findings, infusing these programme strategies into a theory that is modifying the uses and gratification and consumer behaviour theory as well as projecting audience flow model better will deliver service quality parameters. The audience need for information requires them to search for

a programme and the environment of the audience will enable him to choose the available programmes depending on the service quality parameters which will influence the audience returning to the television station or not.

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SECTION: 7
SCREEN CULTURES

Mediology and Serial Narrative, In Literature and Beyond

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Abstract

Understanding the seriality evolution in narration forms, and the reasons for their evolution requests a multidisciplinary perspective, based on post-McLuhanian mediology, sociologies of imaginary – starting from Durkheim tradition - and on semiotics, cultural studies, internet studies, comparative literature. The serial narrative “technologies”, in fact, re-mediate and focus areas of collective imaginary according to stable and shared rules; they serve to train and retain audiences while representing and controlling social and intrapsychic conflict; they are one of the most powerful catalysts for creating genres, mainstream works, cycles, fictional worlds, which constitute the spaces of fundamental aesthetic experience in every culture for co-production and socialization of the symbolic sphere. Technologies, together with hybridization processes and collective metaphors being structural components of the media, change over time, in the historical media-morphosis process. After briefly describing the current theoretical framework, this contribution tries outlining a general theory of the “serial engine” and of the seriality evolution over the long term: In fact, grounds and archetypes of serial phenomena are already recognizable in the literature (medieval, baroque, metropolitan). For this reason, the most intense restructuring periods may be found in the “return” of the narrative cycle in the twentieth-century multimedia environment, then in television post-series, and currently in the social networks’ hyper-fragmentation and self-serialization.

Keywords: seriality, mediology, transmedia, self.serialization, cycle, genre

1. Introduction: Two Fields of Studies on Seriality

Understanding the evolution of seriality in narrative forms, and the reasons for their evolution: this matter configures an extended search field, challenging a multidisciplinary perspective based either on post-McLuhanian mediology, or other approaches, as sociology of imaginary, semiotics, cultural studies, internet studies, comparative literature studies. We mean by “Mediology” a current of studies with strong roots in the European culture of the 20s and 30s of 20th Century and a first theoretical basis in McLuhan in the 60s (but several other authors and orientations later, until today). Unlike other currents of communication studies, which are mainly oriented on the “effects”, or on instrumental apparatuses (technologies and culture industry), or on situational dynamics of “communicative actions” exercised by “actors” (individual, social, political, economic ...), mediology studies processes in a holistic way and in the framework of long-term movements period, considering the media as the virtual environment of culture and human existence. Since virtualization largely affect the general evolution of the cultural ecosystem (e.g. cultural models, imaginaries and identity), and of human mind (and body, in terms of perception), the change in the media system (“mediamorphosis”, according to the holistic vision of mediology), changes the cognitive patterns and the aesthetic forms, socially stabilizing imaginaries, myths, values, above all by creating virtual “places” populated with stories. Thus the forms of storytelling stabilize and evolve in subsequent eras in relation to the media. Among these, serial forms are fundamental for their power in stabilizing and extending cultural models, created in literary narratives, in the arts, in screen narratives, and today in digital networks.

* This contribution, fully shared by the authors, was drawn up as follows: paragraphs 1 and 4 by G. Ragone; paragraphs 2 and 3 by D. Capaldi

Many studies are focusing today on two gigantic and global phenomena: a) the serial, consumed on all devices well beyond television, and currently becoming central to the development of fiction for its hybridization and colonization with forms and technologies of digital cinema; and b) the serial forms widespread on social network platforms, which are increasingly important in our communication and living environment. Mediologists tend to share with other research fields, for example film studies, some basic theoretical frameworks, as in particular the concepts of transmedia and convergence, launched by Henry Jenkins, but moreover already developed by McLuhan, regarding the rapid hybridization processes of electric media: radio, for example, is a platform where forms, technologies of narration and contents of different media (newspaper, concert, variety, song, drama, but then also books, cinema, television) exploit public loyalty to add and merge different audiences. Historically, since the 1930s, there has been a real explosion and diffusion of serial forms in transfer from one medium to another (within increasingly pushed intermediate dynamics: from pulp novels to cinema or comics; from phonograph to radio, etc.). And the forms of transmedia seriality that are dominant today have started with Disney at an industrial level, that is the programmed diffusion of the same content units on multiple media and platforms. Thus, in fiction and beyond, the expansion and dispersion of a story is generated, which by transmedia storytelling maintains coherence and diegetic consistency (continuity and multiplicity: Disney stories such as comics, films, cartoons, serials, theme parks, gadgets and franchising, and so on...).

The typical processes of transmedia seriality in current forms are quite well known: the continuous recreation of the same storyworld (how many hundreds of continuations or re-writing of *Pride and Prejudice*, including the 50 shades of gray!); the well organized work process transforming a story to an actual articulated worldmaking, fixing characters, conflicts, hierarchies, rules, etc.; the milking that contaminates other worlds and mythologies in the narrative, while multimedia makes different communication flow and different spectacular traditions coexist; the re-boot, i.e. the abandonment of continuity in a series to recreate a story about the same characters and the same world from the beginning; the commercial side of the phenomenon, based on franchising, to expand consumption on additional markets; the importance of fandoms to produce other narration and reuse of content; etc. Moreover, the reuse in television seriality (and even before in cinema seriality) of inventions from literary seriality, which is a continuous practice of work in the cultural industry. Literary seriality has centuries of history behind it and is at the origin of many of the “technologies of storytelling”. This type of narrativity has been accelerated with the advent of large global platforms, which distribute / produce fiction (but also many other forms of entertainment and serial infotainment), and often also absorb fandoms, orienting consumption in a multidimensional and transmedial sense: YouTube, Netflix, Amazon, etc. Within their networks, many production agencies work continuously re-elaborating and experimenting on the traditional forms of the serial story, focusing models dedicated to intensive, voracious consumption, and to binge watching repeated if possible on multiple media; therefore the models of transmedia storytelling, shared globally by billions of people of every culture, become strategically more and more important. The most famous example is perhaps *Star Wars*. As a tie in to the first film in 1977, Marvel’s comic franchise was born (until 1986, 107 issues and 3 annual specials), which saved Marvel itself from a financial meltdown. Then almost 50 videogames (*Jedi Fallen Order 2* was released with the last film of the saga in 2019). Then the cartoons: *Star Wars Rebels* (2014-2019) is an American 3D animated TV series made in computer graphics, produced by Lucasfilm and Lucasfilm Animation, set five years before the initial film and fourteen years after *Revenge of the Sith*. Then the TV series. The last one is *The Mandalorian*, launched by the Disney streaming platform. Not to mention Internet gigantic fandom movements, and gadget industry.

The situation of narrative seriality is at least partially different as regards the “deep” structure of communication in the social media environment. Are we here, instead, in a phase of actual rupture? The more general phenomenon is a reversal of traditional seriality in the hyper-fragmentation that dominates social networks, the environment where short sequences

taken from fiction or other material are broken up, to generate the very short videos or images that can become “viral” (also through reuse and parody). A recomposition between those short forms and the serial fiction (especially the situation comedy) occurs only partially in the web series, restoring audience loyalty processes. Moreover, a structural change trend has long been noted in the television serial itself, identified in a “post-seriality” seen as a tendency to abandon the classic sequentiality and recursion of the storytelling in favor of rhizomatic and simultaneous forms. So in *Lost*, so in other original inventions, which imitates or parodies the usual forms of television and videogames, as often in *Black Mirror*. But in networks the thrust towards practices that we will provisionally indicate as “self-serialization” is even more disruptive: a bottom-up seriality, based on the design of everyday life and one’s own image, practiced by almost every individuals: from selfies to more elaborate products: the explosion of bloggers, stories posted on social networks, and emblematically of influencers, with their self-branding. “Instagramism”, or “Instagram aesthetics”, has been described by Manovich (2015 and 2019) as a creative but only weakly narrative operation (the way of arranging bodies in space, on the edges of the frame; filters and tricks; the “stories” as emotional-sentimental experiences). The overturning of the balance between image and narrative structures occurs - according to Manovich - precisely because serial storytelling is already largely organized by software. After all, the work of designers in social networking systems consists precisely in the development of this new type of aesthetic forms, in the invention and extension of models that are aimed at the possibilities of capturing, creating and exchanging information with digital technologies. Hence the centrality of browsers, big data, algorithms, but also of easy-to-use formats, and quick images to be absorbed and turned over on hypermedia platforms able to offer everything you need for consumption or entertainment. The movement is global and profound, and involves the entire ecosystem of communication on social networks (with infinite examples: from Pinterest, as a selection and collection of images, to SnapChat, with selfies made up in a clownish way and exchanged privately). The question is: have we therefore perhaps arrived at a solution of continuity in the millennial history of serial narratives, that is, in the systems in which Western culture virtually projects an entire world, suitable for experiencing syntagmatically complex events?

In summary: at least 4 serial phenomena are emerging on the web:

- 1) concentration of the consumption of fiction on large platforms, which often also absorb Fandom (communities producing narration and reuse of content): Netflix, YouTube etc., with a boosting towards addiction and binge watching of serial TV etc.)
- 2) fragmentation (how content is broken up and reused: Hitler and cupcakes),
- 3) Parodic Webseries (*French Ritals*, *The Pills*). They attack the cliché, especially that of the mythologies of the information system, retaining audience loyalty with serial formats.
- 4) Self-serialization in social networks: it is based on the design of everyday life, and of one’s own image. It boosts a creative, weakly narrative serialization. See for ex. Pinterest showing a similar trend in a collectible way (creative selection of images).

2. For a general theory on seriality

To understand if we really are at an epochal break, we still lack a general and long-term theory on seriality (see fig. 1). We can register only a few sporadic attempts, sensing the need for prospecting with a longer view (as Michael Evans’ *Robin Hood: medieval and post-medieval*, 2005; or Roberta Pearson’s on the stories of the Bible in cinema: *Reframing culture*, 1996 and 2014). For a general theory, in fact, it would be necessary to describe and interpret the establishment over time of serial forms of narration, what has historically happened in literature, in the arts and in other performative forms of the story. On this level it will be good to remember

that the theories of Simmel, Weber, Benjamin, Elias, Foucault, Bourdieu, McLuhan, Luhmann, Abruzzese and many other initiators and protagonists of the sociologies of cultural processes, collective imagination and media were founded, each at his way, on a historical-inductive study of the forms of the modern. They discovered paradigms and lasting models in culture and social formations by investigating the past, through real “archaeological excavations” on the origins of those forms: Their reasoning therefore goes backwards (eg. Weber about capitalism goes back to Protestantism, McLuhan to explain the electric age or radio goes back to ancient orality).

So here are the main research questions in this search field:

- 1) What are the pre-modern and modern (metropolitan) archetypes of current seriality?
- 2) Is it possible to construct a general theory on the forms and social function of seriality on the basis of historical phenomenology?

Mediology and serial narrative: a work plan...

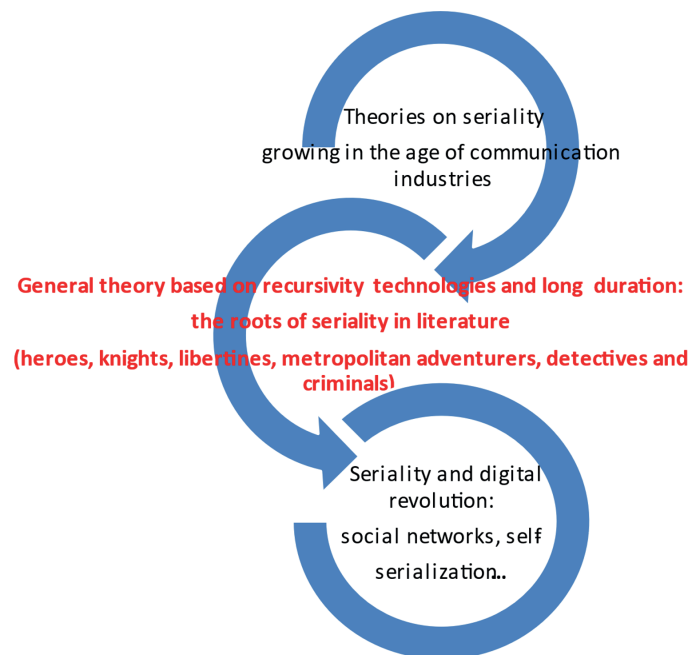


Fig. 1 – Mediology and serial narrative: a work plan

Regarding the first question, we believe that archetypes of seriality can be identified only by taking into account the radical changes in the media environment as a living environment (mediamorphosis). Mediologists, but also anthropologists, historians, philologists such as Goody, Ong, Febvre, Chartier, Darnton, Zumthor and many others are excellent examples of studies of this type in the last 20th century: they have dealt with cultural practices, perceptive and reception systems rising in relation to changes in the reading / writing medium over time.

The structures and figures that make up the rules / technologies of narration, in fact, change together with the technologies of communication, the conformation of media environments, and the “constellation” of collective imaginaries / metaphors. According to the mediological theory of McLuhanian tradition, these are the three structural components of the evolution of the media, as of any media event. The long story of serial narration has always implied con-

stant changes, “recoveries” of aesthetic and imaginary forms of the past, or radical solutions of continuity. But the research on archetypal forms and on the evolution of seriality cannot be resolved in a simple description: it is necessary to compare the phenomena with an explanation that tries to account for their social function. On the social level, the role of the rules / technologies of narration is fundamental in the consolidation of collective imaginaries. On the one hand they re-mediate, that is:

a) bring about the transfer from one medium to another with restructuring of the old medium into the new one (e.g. TV remedies radio, newspaper, cinema, theater, cartoon, music and all the previous spectacular forms, now converging);

b) and determine the transfer not only of the forms of the old media but also of contents and imaginaries, remedied and re-functionalized. Examples: *Bridget Jones’s Diary* is a 2001 film directed by Sharon Maguire, a British romantic comedy based on the novel of the same name by Helen Fielding. Or: Jane Austen’s novels with various remediations and re-functionalizations, and recently with thousands of online rewrites (the most famous in the erotic sense, the 50 shades of gray, born from a rewrite on the network of a novel published on Erika’s blog Leonard).

On the other hand, in this way, through remediation, they focus areas of the collective imagination according to new shared rules, i.e. they focus the collective attention on narratives having a metaphorical meaning that is current in a given era (what explains their diffusion and their success if they are exploited by the cultural industry). Some infesting and self-evident examples: the Templars, between true history, novel, cinema, television, videogames, etc, metaphorizing the secret religious sects.; the *Da Vinci Code* accentuating the attention on the level of the conspiracy (detective story plus political intrigue), but also on that of the reusability of any fragment of content coming from heterogeneous historical and temporal contexts. Focusing is therefore a cultural process with important consequences in social life because - mediated by the technologies of serial narration - it serves to train and retain the public, while at the same time representing and controlling social and intrapsychic conflict.

On what can we base a theory of seriality more generally? Is it possible to describe the “engine”, the “narrative technology” that makes it possible for the user to depend on a serial storyworld? On the semiotic level (according to a line from Genette, *Palimpsestes*, 1982, to Fabbri, 2021) seriality is based on two “figures”: recursion and accumulation. Observing the history of cultures, it is evident that a certain rate of recursion is implicit in every human artefact, and in every action aimed at the use of artefacts: from the first weapon / tool (the club, the bone), to the first artistic expressions (the painted hands in the caves), up to popular and mass rites and stories. In addition to semiotics, other theories on this aspect, formulated by experimental psychology, can explain to us at least the bases of the phenomenon and its centrality in every culture. Antonio Damasio, one of the founders of neuroscience, considering the mind and body holistically, proved that in the chain of reactions responding to the sensory stimulus and binding together emotions, feeling, thought, the memory structures are already located at a basic level of “feeling”, because they are “familiar”, that is experienced countless times, and consequently automated. Every stimulus is always answered by pulling out the answers previously given from memory. In fact, the more familiar structures do not trigger new experience and new structures of feeling and do not tend to lead to conscious thought. Even when the emotions are violent or intense, but “familiar” because repeated a high number of times, an intermediate state is generated: a sentimental mood, not inclined in itself to cognitive thinking. In this intermediate state – the sentimental mood - the repetitive patterns also trigger the pleasure of variation: we play to bring the unknown back to the automated experience. So the sentimental mood becomes compulsive / accumulative: we recognize the variation and connect it to this intermediate state.

Therefore the experience of seriality is typically the one preferred by the mass media. It is possible, in advertising as in video clips or serials, to use automatic memory and feeling responses, producing loyalty based on this intermediate sentimental state, and on the pleasure of reproducing it in a collective game. Feel and play. Not “feel and reflect” as in art. The artists, aiming to trigger a reflective tension with the experience of the opera, often rely on the public’s habit of receiving serial products, to be sure to capture their attention (Hugo, Dostoevskij, Verdi, Tarantino ...). At the same time they are able to work (with the weapons of irony, overturning, creation of a reverse shot, or nonsense) on the compulsive dependence of their public on serial habits and genres: from Lucianus to Cervantes, from Oldenburg to Warhol. Not training, in this case, but awakening ...

3. The serial engine

Keeping in mind what has been said so far, let’s try to introduce a general scheme of the narrative “technology” to which the generation of seriality is entrusted in every imaginary production system (fig.2).

The serial engine

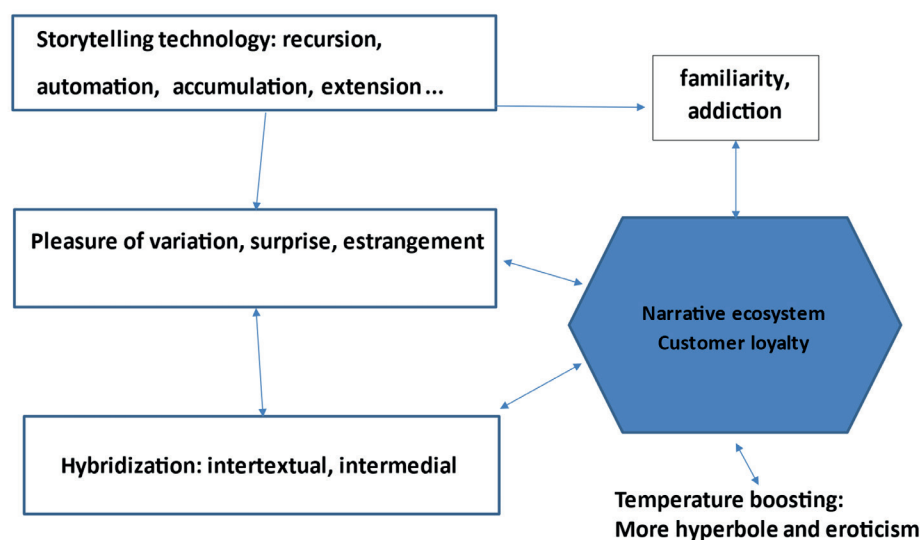


Fig. 2 – The serial engine

We partially derive it from semiotic theories on advertising (Ragone 2015b). What elements are constitutive, in general, of a serial system?

- a) recursion, repetition
- b) automation of the spectator’s reaction (e.g.: a structure that produces an effect on spectators, such as the acknowledgment of an object or a character, allows to direct and control spectators reactions)
- c) accumulation (the more you serialize, the more elements of the narrated settle in your memory, with an accumulation of repetitions that can go to infinity, such as in Beautiful, or in in certain types of political or religious communication)
- d) extension as an expansion of stories and characters in narrative wide environments (typical of sit-coms)

The narrative seriality must therefore create familiarity and habit, but at the same time it feeds on the pleasure of variation, surprise and estrangement (estrangement: when you are in a familiar environment but breaking elements arrive and conflict with the narrative structures in which you became familiar). This is the technique of advertising: I familiarize you / I surprise you. These elements (recursive technology, creating familiarity, and accompanied by surprise), are necessary to form any narrative Ecosystem to which the public becomes loyal. But all this is not sufficient for an interpretation of the historical dynamics of seriality. Two other processes need to be kept in mind. The first is hybridization. The media are not only communication technologies carrying information. They are processes of hybridization of media between them (mixing forms, structures, contents, imaginaries, collective metaphors). For example: the ancient epic poem hybridized different media: versification techniques, spectacular performance, mythologies, ritual practices, music, etc.. Hybridization already takes place at an intertextual level, by assembling narrative systems of other textualities: Alexandre Dumas's *Count of Montecristo* hybridizes, for example, both the prison story (the *If Castle*), and the realist novel like Balzac, or Sue, with the *feuilleton* writing technique, and also with oriental exotic stories of colonial adventures, etc. Hybridization can also take place at an intermedial or transmedia level (see fig. 3): eg. Shakespeare's sanguinary *Othello* drama hybridized in melodramatic opera (therefore music, song, performance, scenes, dance, etc.). Or the *Star Wars* transmedia storytelling...Indeed, we can explain in general the evolution of genres by a hybridization of media: eg. the detective genre was born hybridizing crime news (newspaper), the circumstantial paradigm (detective and research of the scientist, see *Sherlock Holmes*), the metropolitan realist novel. And so on: new hybridizations and new genres with *CSI* (the work on the bodies representing the sick and violated social body) or *Gray Anatomy* (the pathologists).

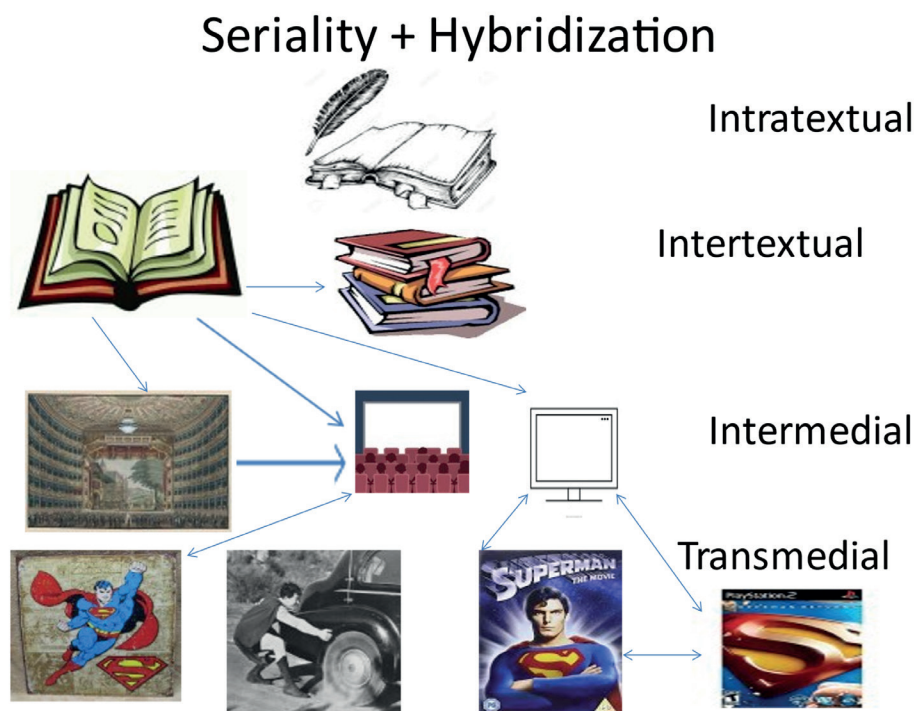


Fig. 3 – Seriality + Hybridization

The second other factor of the engine boosting is overheating, caused by the use of hyperbole and / or eroticism. We can observe dynamics of more or less intense overheating in a serial

structure (see initial box: recursion etc.). That is, some elements are overheated for feeding the narrative tension, trying to maintain loyalty, and to accentuate the involvement of the viewer. For example, the remake of the Postman it always plays twice, was made in strong colors and hot sex scenes because the viewer already knew the history. The Marvel cycle where the Super Heroes (Comics published by Marvel: Captain America, Hulk Thor, Hawkeye, Black Widow, and Spider-Man) are already hyperbolic in the initial comics, but not as overheated as in the last cycle of movies, where they hybridize with each other by adding them even in a super hyperbolic way, for example in Avengers 2012. In the Rambo cycle the character is increasingly hyperbolized, because it is necessary to sustain the tension in the viewer. The House of Cards political story was overheated with Sex and Power (as Shakespeare's Lady Macbeth)... These are processes that explain the series, and also the descending parable of the series because it is necessary to invent new and increasingly hyperbolic elements to bring up the story.

Let's go back to the 4 levels of serial processes: Intratextual, Intertextual, Intermedial, Trans-media. And let us dwell on the intratextual level that allows us to understand what are the most important elements of recursion. What already repeats itself at the level of the single text? Formulas, Chronotopes, Typical actions, Rhetorical and Narrative Tropes, Typical characters, Recurring characters...

a) Formulas ("the dawn rose with pink fingers", pious fast Achilles, cerulean eyes Venus). Homer for example. The formulaic use is connected not only to the practice of memorizing a passage, that was rising in the environment of writing; it is mainly aimed at the oral practice of intertwine formulas, stylistic features and episodes put into verse. For example in the famous catalog of ships of the II book of the Iliad: the formidable memory capacity of these singers is well known.

b) Recursive chronotopes (the forest, the reception in the court, the police station...)

c) Typical repeated actions (the unknown knight arrives in the tournament and wins, a man meets a woman in the bar in the metropolis over a whiskey) (NOTA: whiskey indica quelli americani e irlandesi. Whisky quelli scozzesi. Forse è meglio mettere whisky?)

d) Tropes (they are both rhetorical figures and narrative figures, such as the agnition, or the entrelacement, or the cliffhanger - a "suspended" situation that refers to a sequel)

The Entrelacement (literally interlocking, interlacing) is a narrative technique used mostly by the French authors of the Arthurian cycle. It consists in making the narration continuously suspended and then resumed in several stories linked together, which take place simultaneously. To the reader this particular technique gives the feeling that the facts happen "around him". A well-known example of the use of this technique is Ludovico Ariosto's Orlando furioso. But many serials currently use it.

e) Typical repeated characters (the proud and arrogant knight, the magician, the shrewd, cynical and skeptical detective, the western bounty killer)

f) Character recurring in several episodes of the same text or series (Merlin, the Tenardier spouses in the Miserables,; Baron of Charlus in Proust (A love of Swann))

All the serial mechanisms already active in a text can widely expand into intertextuality: multiple texts reproducing the same structure. In the narrative tradition of literature there are two types of serial intertextuality: cycle and genre. In a cycle, the same characters and the same space / environment are reproduced from one text to another, with at least a relative logical coherence: the events can be arranged in parallel, without contradicting each other on the temporal level, or with prequels, sequels, expansions of the original nucleus, etc. The cycle trend is obviously dominant in the epic. A story is told that takes place in a place and in a sequence of several successive episodes (Iliad); or several episodes are told in different places and times, linked in a "cyclical" structure that incorporates several stories around a mythical hero: (Od-

yssey, Argonauts). Therefore prequels, sequels and incorporation of episodes from other epic traditions (eg Odyssey, Cypree, Aeneid) are always possible. The cycle is back in vogue forcefully (see both a Serial as Game of Thrones and a saga as The Lord of the Rings), with greater intensity gradually starting from the middle '800 (Rocamboles, Sherlock Holmes, Dick Tracy, Rocky, The Avengers...). There have been times when, on the other hand, the genre has been almost totally hegemonic. This is an intertextual seriality in which the environments and the different tropes and situations are recursive, but not the characters. So each text is completely autonomous (in particular, the genre dominated the explosive era of the modern novel, from the beginning of the 1600s to the mid-1800s). Since the return of the cycle in the mid-19th century, the cultural industry exploits both the cycle and the genre.

4. Research perspectives

The historical evolution of cycle and genre serial forms is an important key to understanding the solutions of continuity and the reasons for the transformations of seriality. Of course there are many studies on single episodes, but having to draw a general line, we can try a periodization:

- Protoseriality: the ancient epic
- The invention of the cycle and of the archetypes of seriality in the roman of the XII-XIV century
- The explosion of the editorial "machine" from the chivalrous novel to the baroque (XV-XVII century), with cyclical seriality (romance), and with a first serial cultural industry, namely melodrama
- The genre seriality of the novel, which incubates the city environment from the late sixteenth century (XVI-XVII), then exploding in the metropolitan environment (XVIII-XIX century)
- The return of the serial novel and the cycle in a accentuated intermedial environment and then in the transmediality of the electric metropolis (19th-20th century).

Some final thoughts:

- - seriality in narration is one of the backbones of the entire modern Western culture, and not just a form of production of the cultural industry
- - the historical genesis of each system of serial narration can be identified. It takes place at a precise moment, through the hybridization of imaginaries and forms; and then there is a period of "maintenance".
- - the "playing field" (Elias) of serial systems as social relations phenomenon implies a specific mood (catatonic and compulsive, but also latent learning for conflict management, ...); every great playing field a different one?
- - from the learning / training side, for example, the cyclical novel (XII-XVII century) seems a system to nourish ... the subjectivity of the ruling classes who want to feel "kind" (from the "cor gentile" to the honnet homme, to the galan, to the gentiluomo ...), and therefore it metaphorized the value of simulation and spectacular virtualization of evolving media
- - the genres of the novel (XVII-XIX) seem a system to nourish ... the exploring subjectivity and already oriented to the prediction (and to the governance of the endemic schizophrenia between objectification and immersion) of the society in urbanization
- - fiction more and more produced in cycles in the electric age (XIX-XX) seems a system to feed ... the imagination of evil and the drive to survive in the century of tragedies, globalization, ecstatic consumption, and the fear of end of the social
- - there is a substantial break with the network and self-serialization?

With this we got to the heart of our research theme.

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The Use of Diaries in Films: Hollywood, Transcendental Style and Schrader

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Abstract

The general aim of this paper is to explore the possible worlds that fiction creates through the use of diaries on screen. Firstly, we sketch a wide-angle shot of concepts like narrative identity and diary as a genre. Secondly, we focus on a concrete aesthetic style in the case of the film screenwriter and director Paul Schrader. In this way, we review his seminal text *The Transcendental Style in Films: Bresson, Ozu and Dreyer*. Diaries were an essential genre in the reproduction of bourgeois culture in the XIX century. Scholars like Foucault have indicated the relevant function of diaries in the construction of modern social identity. From that starting point, this text reviews the inflexions of this genre in XX century films through the analysis of three films of Schrader. In our content analysis, we resort to the categories coined by Schrader concerning the Transcendental style, apart from others related to the master narrative of redemption and the possible engagement of the public. This comparison shed light on the differences and common ground of Hollywood canon, Transcendental style and Schrader style. Our conclusions show a dialectical relationship among them.

Keywords: diaries, cinema, identity, narration, style.

Introduction

This chapter considers an aesthetic exploration of the relationship between cinema style, diary genre and master narrative in Paul Schrader's artwork. Schrader has talked about the Bresson *cycle of imprisonment* in which he points out four films related. We can consider a similar *cycle of redemption* with four films by Paul Schrader. These films would be *Taxi Driver* (TD), *American Gigolo* (AM) and *Light Sleeper* (LS). We have developed a scheme in which the so-called transcendental style in Schrader is a theoretical framework to link a genre like diary with the master narrative of redemption (McAdams, 2019). Following this scheme, we review questions of culture and identity narratives. Secondly, we focus on the diary as a genre. Finally, we deal with the transcendental style in Schrader's artwork.

1. Background

1.1 Stories of redemption

As Brian Boyd has claimed, "we invented stories, then they changed us" (2009, 2018). In this epigraph, we will lean on the work of Dan P. McAdams (2019) related to the construction of identity through human storytelling. This author considers the relationship between identity and narrative in three different dimensions: "development of narrative identity over the human life course, socially consequential variations in narrative identity, and how culture shapes the stories people tell about themselves". Out of these three factors, this chapter is intended to deal with the latter, particularly with how culture (in our case, popular media culture) handles a specific type of storytelling under the label of "redemption stories". In a sense, our idea is to extend the meaning of the work of McAdams to popular culture. Psychologists have coined the term "narrative identity" to refer to "a person's internalised and evolving story of how he or she has become the person he or she is becoming" (McAdams and McLean, 2013). Any of us build stories in order to live and to adapt to our cultural environment. Logically, these stories are not made up in isolation, but they emerge as a product of that web of practices, meanings

and artefacts that we call “culture”. Within this cultural system, media stories are central. Culture includes all the technologies, motivations, values and beliefs that we learn while breeding up. McAdams reminds us that stories are part of that culture. In that sense, we point out stories as *software technologies of culture* and narrative identity as some unique and remarkable case within a larger group. “In the case of narrative identity, culture surely specifies the prevailing images, themes, plots, and meanings that life stories may exhibit” (McAdams, 2019).

Thanks to culture, we undergo a process of self-domestication. These stories about identity involve the domestication of the self through different media, entailing media as a complex concept, similar to that of Foucault’s one “technology of the self”. We refer to diaries as a technology of the self in the next paragraph; previously, we examine the meanings of a particular narrative identity: redemption stories. According to McAdams,

“the redemptive self may be an especially ‘American’ kind of life story, with prevailing versions of religious atonement, personal emancipation, upward social mobility (the American Dream), and recovery” (McAdams, 2019).

This text analyses examples of those redemptive stories in the plots of *Taxi Driver*, *American Gigolo* and *Light Sleeper*. The main characters in them are prototypes of the redemptive self that Hammack (2008) describes as a master narrative or “a cultural script that is readily accessible to members of a particular axis of identity, whether that be a nation, an ethnic group, or a gender” (Hammack, 2008). Paul Schrader wrote these three films, and two of them (AG and LS) were also directed by him. Schrader was highly influenced by the work of French director Robert Bresson, in a way that we can affirm that these three films stem from Bresson’s one *Pickpocket* (1952), which is also a redemption story.

1.2. Diaries as a protean genre

Diaries exert in the work of Schrader various functions. We can understand a diary as a private/public media of communication. The history of this genre tells us its evolution from a private genre to a public

one, and going beyond, from a personal form to a literary and film genre. In the beginning, diaries were conceived as annotations of private individuals that can be publicised years after the owner’s death. In this way, the diary was spread out through bourgeois culture during the XIX century. It is very curious that the public side of the diary only emerged as a new space between institutions and individuals after the demise of the proprietary.

Those diaries explored the feelings and the “new private space” of the new bourgeois class. In this sense, the history of diaries runs parallel to that formulated by Habermas (1989) around the concept of public sphere. During a lifetime, diaries contribute to creating that private space that becomes a public one. In that sense, we want to highlight two ideas:

- At the same time, diaries create new spaces; they function regulating and preserving the self from outer social forces.
- Diaries contribute to cultural reproduction, not only of the individual but of the collective as well.

It is not a coincidence that the genre of the *novel* shares many features with diaries. Diary is used sometimes by authors as a rhetorical strategy to convey the content of a novel.

The origin of diaries can be dated back to documents from the XIV to the XVIII century written day by day to record financial accounts, describe the events of a journey in a logbook or narrate spiritual experiences (Braud, 2020). However, Foucault associates the form to the care of oneself in Antiquity.

“Taking care of oneself became linked to constant writing activity. This is not a modern trait born of the Reformation or of the romanticism; it is one of the most ancient Western traditions. It was well established and deeply rooted when Augustine started his Confessions (Foucault, 1988).

Foucault distinguishes four categories of technologies: production, sign systems, power and the self. The latter one

“permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality” (Foucault, 1988).

From Antiquity, it was recommended to spend some time alone to reflect as a way of meditation of preparation for misfortune or death. Writing culture was increasingly substituting the oral tradition with the deployment of the bureaucracy of the imperial period. In the private realm, individuals began to take notes about themselves to be reread. McAdams (2019) wondered when people began to assume their lives reflectively, in the form of a writing narrative. Augustine is credited with producing the first document we can label as a precursor of modern diaries. His *Confessions* is paramount for researching on diaries because he boiled down the auto-surveillance idea of the technology of the self with the spiritual communication through the practice of confession. His legacy is so remarkable that Rousseau entitled his memories as *The Confessions*.

In his reedition of *The transcendental style in film*, Paul Schrader explains that he was the “product of the Christian Reformed Church in Grand Rapids, a Calvinist denomination which at that time proscribed theatre and other ‘worldly amusements’” (Schrader, 2018, 2). He is not only confessing to us the conflictive relationship of his faith with modernity but giving us keys to understand the use of diary in his films. In the Catholic tradition, the communication with God is mediated by a priest, usually in a confessional booth. The Reform put into question that way of transcendental communication. In an attempt to reduce the power of the Roman Catholic Church, Protestants believe in the non-mediated connection with the divine. Diaries might function as a substituting tool for the Catholic confessional booth. In the three films analysed (*Taxi Driver*, *American Gigolo* and *Light Sleeper*), there are allegorical depictions of a confessional booth in different manners:

- Mainly keeping diaries.
- But also in ordinary conversations into a taxi, at the bed or into a limousine.

Communication theories have examined the functions of media under the label of functionalism. From that functionalist point of view, bourgeois diaries differ from their precursors before modernity because they are made up for different goals.

We have mentioned some of those functions. We want to underscore the auto-regulation and cultural reproduction of social identities. Diaries, as media, serve the goal of controlling the environment around them. This control function is a classic one in functionalism. The diary owner keeps it to preserve his/her sense of identity and continuity across time. At the same time, diaries may become an instrument of cultural reproduction (Bourdieu, 1984). We intend to explore how those diaries leap from a literary genre to a film one with these functions in mind. Moreover, we propose focusing on the case of diaries in the artwork of a Hollywood screenwriter: Paul Schrader.

1.3. The transcendental style in films

When we write “style”, we mean “cinema-style”. In that sense, “style” is a variable which modules the master narrative of the redemption story and the depiction of writing diaries.

The term *transcendental style* was coined in the 1970s by Paul Schrader in his text “Transcendental Style in Film: Ozu, Bresson, Dreyer” (1972, 2018). Schrader developed his definition departing from those cinema authors, comparing their films, extracting the common ground and the differences among them and, eventually, grafting this cinema artwork into a cultural and aesthetic tradition which can be traced back to Byzantine art (2018, 38). In the 1980s, David Bordwell rescued that denomination to referring to what he would call “parametric style” (Bordwell, 1985).

Once one has read the theory about the evolution of diaries as a literary genre (Braud, 2020) and Schrader’s aesthetic manifesto, it is logical to conclude that diaries can perfectly convey the aesthetics essentials of the minimalist-formalist style of the American author. His emphasis

on the patterns, routines, and forms to reach certain *stasis* matches well with the idea of the description of a diary routine. Schrader tries to translate literary diaries into visual artwork. The peculiar issue here is that those written diaries are translated into films, simultaneously, in spoken words (voice-over), images of written diaries and images of actions; all of them mixed up according to the style codification. Later, we check on this in the content analysis comparison of the three films.

Paul Schrader is a rare and unique case in film history. He has built a screenwriter and director career in cinema; at the same time, his films are the expression of his manifesto about transcendental style, a sort of continuation in a thread of art and personal identity, a kind of cultural reproduction of himself and of the society where he has been living.

Next, we describe the dimensions of this style, taking into account that we have preferred to show it through the artwork of Robert Bresson instead of Ozu or Dreyer. At any rate, all of them are formalist in “the traditional religious manner; they use the form as the primary method of inducing belief” (Schrader, 1972, 61). From a modern point of view, “belief” can be translated as *the viewer’s engagement* so that the form leads us to the engagement.

First dimension: Plot and engagement

We can clearly distinguish classical Hollywood style or Institutional Mode of Representation (Bürch, 2017) from the Transcendental style in this dimension. In Hollywood films, as Schrader explains to us:

“The plot “screen” establishes a simple, facile relationship between the viewer and the event: when the spectator empathises with an action (the hero is in danger), he can later feel smug in its resolution (the hero is saved). The viewer feels that he himself has a direct contact with the workings of life, and that it is in some manner under his control. The viewer may not know

how the plot will turn out (whether the hero will be saved or not), but he knows that whatever happens, the plot resolution will be a direct reaction to his feelings”.

In Bresson, there exists an emotional engagement with the film, but it is reached through the formalism exhibited in the depiction, not via involvement with the characters’ actions. Although his films are not devoid of plot, Bresson detested dramatic plots.

Second dimension: Acting

For Bresson, the building of characters is an impossible aim because real human beings are too complex to be deployed on stage. Then, in his view, the actor’s work is always a simplification of reality. Bresson set his perspective as an aesthetic whole in which the actor is an instrument to achieve emotional involvement through formalism. The French director is not concerned with the psychology of the character but with physiology. In order to do this, he encouraged actors to develop their non-expressiveness, act automatically, and try to perform without being aware of themselves. It is physical work rather than a psychological or emotional one. In this way, these ideas are related to Brecht or even the evolution of Stanislavsky’s ideas about acting (Pitches, 2009).

Third dimension: Camerawork

Bresson was very aware of the connotations that the visual style can produce in the film. He defended to strip “the camera of its editorial powers by limiting it to one angle, one basic composition” (Schrader, 1972, 67). He used a clear set of rules to face every scene: static angles and well-composed *mise en scene*. The character gets into the frame, acts and leaves it. He expected viewers not to be distracted with the camera work. In that sense, Bresson avoided “beautiful” images that can “screen” the inner drama of his protagonists.

Fourth dimension: Editing

The editing work in Bresson’s movies tries to avoid neither the plot’s emotional climax nor progressive tension. Visual metaphors are interdicted. As with camera work, editing must be based on regular and precise rules, pursuing an anti-dramatic effect.

Fifth dimension: Soundtrack

Sound effects and score are instruments in Bresson's hands to convey his anti-emotional depiction of reality. The goal is to achieve an impression of ordinary life, reinforcing the natural sounds through a close-up shot sound. "Because the ear is more creative than the eye, they create this concern best when the camera is at a distance from its subject" (Schrader, 1972, 69).

2. Materials and Methods

As we have mentioned, we have decided to coin the term "cycle of redemption" to define the three-group film comprising *Taxi Driver* (1976), *American Gigolo* (1980) and *Light Sleeper* (1992). With this sample, we applied a content analysis based on the variables described previously in the introduction. We expect that comparison among redemption storytelling, use of transcendental variables applied to stories and forms adopted by the genre diary might shed light on the evolution of style in modern cinema and its relationship with the reproduction of culture. We compare the three films of Schrader with Bresson and Hollywood styles. In doing so, we have devised a codification that includes all these questions (appendix).

3. Results and Discussion

3.1. Redemption stories

We compared the master narrative of redemption around the idea of atonement or penitence due to compulsion or mischievous drive. This idea is clearer in *American Gigolo* (AG) and *Light Sleeper* (LS) than in *Taxi Driver* (TD).

As viewers, we can understand easily that John Le Tour (lead character in *Light Sleeper*) has been a drug addict and works now as an upper-class drug dealer. He is on his way to be saved, but he must face the evil in the persona of a gangster involved in the murder of Le Tour's ex-girlfriend. Schrader wrote and directed this film just after he got clean and stopped using drugs.

Something similar happens to Julian (the protagonist in *American Gigolo*), but in his case, the problem is a sex addiction instead of drugs. Julian has been framed for a crime, and he winds up killing the one who framed him (a pimp). In both films (AG and LS), the redemption is channelled through the enlightenment of love, and Schrader depicts the final scene copying the whole scheme of the end scene in *Pickpocket*.

Taxi Driver is a little different in its process of redemption. We never know what the problem with Travis Bickle is. Is it the experience of the Vietnam War? Impossible to discern with the given information. We can link this feature with the Bresson filmography. We hardly acknowledge the motivation of his characters. That motivation seems to be clear in LS and AG: an addiction. It is accurate; however, we know little about the origin of that compulsion. In the case of *Taxi Driver*'s protagonist, we even ignore why Travis has become who he is now. We only observe how he deals with his gloomy thoughts during the first part of the plot. In the middle of the film, Travis thinks to have discovered the cause of evil in Palantine, the populist politician. He did not get to kill him and then shifted his target to Sport, the pimp of Iris. This time, Travis murders him but ends up being shot. In the final scene, we are told that Travis has been recognised as a hero who has saved Iris from the claws of Sport. The difference between TD on the one hand, and LS and AG, on the other, is undoubtedly related to Martin Scorsese, who directed *Taxi Driver*. Schrader wanted to end TD differently, and eventually, he could do it in LS and AG.

In general, the master narrative of redemption in Schrader is different from both Hollywood and Transcendental styles. It works like a collage of both. From the European side, Schrader takes the reflective and calm development of the plot. Regarding the American side, he assumes his characters use violence to solve their problems; violence is not only instrumental but also related to a ritual dimension. His protagonists begin to accept their social environments' "natural" order until they decide to revolt against it. In that sense, Schrader links his work with Hollywood examples such as John Ford's *The Searchers* (1956) or, in general, with the tradition of the genre of Western.

3.2. Inner voice and depiction of diaries

In Hollywood style, voice-over is associated with the motivation and explanation of the characters' actions (Kozloff, 1989). As viewers, we listen to the inner dialogues of protagonists to broaden the information and knowledge about their reasons for doing the things they do. It is unusual to find this resource in films before World War II (Valhondo, 2020) because the Hollywood style intends to be "invisible" to the cinemagoer, and inner dialogue might break that illusion. However, the case of Transcendental style is very different.

"Bresson's favourite "doubling" technique is interior narration. In *Diary of a Country Priest*, *A Man Escaped*, and *Pickpocket*, the main character narrates the on-screen action in a deadpan narration which is often only an audio replay of what the viewer has already witnessed. For example, in *Diary of a Country Priest*, the priest calls anxiously on the Vicar of Torcy. The house-keeper answers, obviously informing the priest that the vicar is not at home. The door closes, and the priest leans dejectedly against it when we hear the priest's voice, "I Was so disappointed, I had to lean against the door." In *A Man Escaped*, the order is reversed: first Fontaine narrates, "I slept so soundly the guard had to awaken me." Then the guard walks into his cell and says, "Get up"." (Schrader, 1972, 71).

The French director uses the voice-over just to reiterate what the viewer already knows by the images. That inner voice does not support a function of information. Instead of that, that voice contributes to the formalist scheme of Bresson. We might argue the same respect for the use of diaries. Voice double and triple the message of the action and the written word in the diaries of the lead characters.

In the case of Schrader, there are changes through his films in the use of these two resources: voice over and diaries. Travis Bickle (TD) keeps a diary, and we can hear his voice while writing, but Schrader does not follow the doubling technique. In any case, it is not easy to understand the motivation of Travis, even listening to his inner thoughts.

We can not enjoy the inner voice of Julian in *American Gigolo*, and he does not keep any diary. Most of his acts are explained by himself to another character in the plot. For example, when he tells Michelle why he works as a gigolo.

The third case of this trilogy, *Light Sleeper*, returns to a lead character with a diary, but, in his case, we understand better his motivations than in Travis' case.

Table 1: Characterisation of Schrader style in the Film History context

	Hollywood style	Transcendental style (Bresson)	Schrader style
Master Narrative of Redemption	Redemption serving the engagement	Redemption story is an end itself	Redemption by violence
Use of Voice over and diaries	Used for explaining feelings and thoughts	Used for "doubling technique"	A mixed effect of Hollywood and Transcendental
Plot (motivation)	Scenes linked like a chain of causes and effects	Scenes follow a minimalist scheme of action	Mixed scenes
Acting	Characters with motivation	Blurred motivation or no motivation	Primarily motivated characters with exceptions
	Professional actors	Amateur actors	Professional actors

	Hollywood style	Transcendental style (Bresson)	Schrader style
Camera work	Institutional Mode Representation	Formalism	Sporadic use of formalist schemes (but relevant)
Editing	Increasing tension and final climax	A flat approach with a sudden emotional end	Intermittent tension and sudden emotional end
Soundtrack	An aesthetic resource to support the plot	Sounds and music weigh independently	Minimalist and IMR approach
Effects on engagement	Foster identification. A sensation of closeness with the lead character	Detachment of emotion through “disparity” to reach identification at the end	Possibly a contradictory engagement

3.3. Parameters of style

Classic Hollywood loved the plot built on the idea of fostering identification with characters. The logical and emotional rules of a progression story are quintessential in that plot. From a logical point of view, scenes work as a chain of causes and effects, questions and answers, which has the final solution in the climax. That point, the climax, serves to relieve the increasing emotional tension. All the resources are at the service of that engagement: characters should show clear motivations, which must be reinforced by the camera work, editing and soundtrack.

Very far from that aesthetic position, Bresson deals with identification in an entirely different manner, through a formalist way. His minimalist scheme of camera and editing work seems to look for a “schizoid reaction; one, there is a sense of meticulous detail which is part of the every day, and two, because the detail is there is an emotional queasiness, a growing suspicion of the seemingly “realistic” rationale behind every day” (Schrader, 1972, 72).

Schrader fluctuates between these mentioned styles. He prefers to show characters’ motivation through action, but sometimes, like in *Taxi Driver*, the protagonist’s behaviour is veiled to the spectator. His plots are not so flat as in Bresson films. There is increasing tension and development of the action until its resolution. At the same time, he is used to deploying sporadic formalist schemes for the *mise-en-scene*. There are many examples in the way he sets scenes of conversation.

4. Conclusion

The similarities of these Schrader films are enough to speak about a proper style different from both Hollywood and Transcendental ones. The style of Schrader combines traits from the others.

When Schrader edited his text in 2018, he pointed out two things had happened between the first and second editions (1972 and 2018): Deleuze and Tarkovsky. We are going to focus on the work of the former. Deleuze coined the distinction between movement-image and time-image. As we are trying to explore the difference in these three styles, Deleuze winds up being a great help to summarise this discussion. Hollywood style is an aesthetic thesis about the representation of reality. Bresson is the antithesis, and Schrader is a sort of synthesis. For future developments of this theme, much work must be done to compare narrative redemption using, for example, the dimensions deployed by McAdams (2019): atonement,

personal emancipation, American Dream, and recovery. Above all, the question of the depiction of the American Dream, something that can be understood as contradictory regarding a spiritual or religious path.

Another dimension that has to be addressed more empirically is identification. We supposed that the engagement of the Schrader films are sometimes contradictory in the sense that his style is what we have considered a synthesis. However, it would be relevant to study this with experimental reception designs.

Declaration of Interest Statement

The authors declare that they have no conflict of interests.

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SECTION: 8

COMMUNICATION AND COVID-19 PANDEMIC

Youth and EU. The Impact of Covid-19 Infodemic on Citizens' Involvement

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Abstract

The Covid-19 pandemic highlights the disinformation as a risk for European Union integration. False or deceptive news have always existed, but in recent years they tend to impact on public debate and democratic participation alarmingly for the connection with the professionalization of communication strategies by political-institutional actors for consensus purposes and the characteristics of social media platforms and online and digital media consumption habits. So, The Covid-19 crisis and the linked infodemic are extraordinary cases to test the European Union capability to manage the disinformation disorder, especially towards young people. The paper aims to analyse the impact of the communicative strategies and actions promoted by European institutions regarding disinformation about Covid-19 on trust of young people. The research presents an exploratory and quantitative study based on a web survey administered to 1000 Italian and Spanish students.

The results show that trust can be very well the resource on which EU communicative actions may positively impact.

Keywords: European Communication, Public Sector Communication, Disinformation, Youth, Trust

Introduction

The paper presents an exploratory and quantitative study which aims to analyse the impact of the EU institutions strategies regarding Covid-19 disinformation on trust and sense of belonging in young South Europeans¹.

The study design lies in the sociological evaluation of globalisation, in particular the one focused on Europeanization. Scholars (such as Bauman 2004; Beck 2012; Beck and Grande 2004; Castells 1997, 2001, 2018; Delanty and C. Rumford 2005; Habermas 1996, 2004; Giddens 2007) focused on the dynamics of globalization and cosmopolitization underline that European Union integration is a relevant expression of the changing and interconnected world. They also highlight that an organized Europe is a work in progress and that it is important to stimulate people feelings of belonging because, by itself, the institutional architecture is inadequate for involving the citizen's of the member states.

The public communication point of view, furthermore, underlines on the one hand that communication process are crucial for the citizens' involvement and for the European integration, on the other hand that also the European institutions recognize the problem and have tried to solve it (Parito 2012, 2019; D'Ambrosi 2019). In the making of the integration process there are a set of unsolved problems, such as democratic deficit linked with information deficit, the citizens' involvement, the shaping of cross-national public sphere and of European identity. The Commission's White Paper on the Future of Europe (2017) underlines the importance to restore trust, build consensus and create a sense of belonging, considering the access to quality information validated by trusted sources as a key agent for this challenge. Building a more coordinated response mediated by local institutions and bodies (such as Europe Direct offices, Eurodesk): this action aims at promoting information and formation on EU-related

¹ The main highlights and findings of the study are discussed in the article *Fighting disinformation. The impact of the Covid-19 on youth trust in European Institutions* (D'Ambrosi, Iniesta, Parito, Pérez-Calle, 2021).

topics. Moreover, the EU Youth Strategy 2019-27 explore new routes in facilitating interactions between young citizens' and public authorities. All these issues have significant connections with the disinformation issue.

In the last years Eurobarometer survey also revealed weak trust in integrations. From the failure of the Constitutional treaty to the Brexit, both for the citizens' rejection in referendum, EU institutions have remarked a better communication is necessary. In particular, Commission and Parliament have developed communication policies in order to improve relationship with Europeans. The crises have stimulated strategies regarding different dimensions of public communication, highlighting the importance to strength democracy and to restraint Eurosceptic and populist pressures. Disinformation is the more recent threat involving the EU with important consequences on public debate and democratic participation and the Covid-19 pandemic is a further crisis highlights the disinformation as a risk for European Union integration. The Covid-19 stimulated also an 'infodemic', so it is an extraordinary cases to test the European Union capability to manage the disinformation disorder, especially towards young people.

Since 2015, EU institutions pay attention on disinformation. First, the challenge was the foreign-origin *hybrid threats* promoted by Russia, as «massive disinformation campaigns, using social media to control the political narrative or to radicalise, recruit and direct proxy actor» (Join/2016/18, p. 2). Disinformation is an important concern in order to improve democratic participation also during Covid-19 crisis. A few months after the pandemic outbreak, the Commission presented a Communication (Join/2020/8) which explicitly stated the impact of Covid-19 as a test case to verify how the EU and European society was facing the challenge of disinformation. *Tackling Covid-19 disinformation. Getting the facts right* proposes strategies against the *infodemic*: a flood of information, often false or inaccurate, spread quickly over social media, that can (according to the WHO) create confusion and distrust, undermining an effective public health response. The Communication also aims: to focus areas to be further assessed to form part of the wider approach to strengthen democracy; to increase the work to counter disinformation, to adapt to evolving threats and manipulations, and to support free and independent media. It is a comprehensive approach. Disinformation is considered a central matter that involves different dimensions of EU policies regarding public communication and the pandemic is a test case to show how the EU deals with the digital revolution and the disinformation challenge, promoting citizens involvement.

2. Trust in Eu: An Exploratory Analysis in Italy and Spain

To understand the impact that disinformation during the Covid -19 had on citizens' perception of the Southern Europe, it is useful to analyse the level of trust before the pandemic crises (Eurobarometer, 2019). Trust in the European Union has remained stable since autumn 2019 at 43%, with its highest level since 2014.

In the last ten years, lowest levels of trust in the EU are observed in the countries affected by the economic crises, as Italy and Spain. These countries were considered one of the most pro-European countries in the past, tending to be much more positive toward Brussels. Both are examples of Southern Europe and Mediterranean area and they reveal similarities: geographical proximity, cultural and political factors, socio-economic history and migrant crisis.

A focus on Eurobarometer data shows how, for most of the citizens interviewed, economic situation was the most pressing issue facing the EU. Both countries have registered the worst economic downturn among Eurozone members since 2008, becoming less pleased with the EU in the past 12 years (Pew Research Center, 2019). In 2019 about half of the respondents "tend to trust" the EU in Italy and Spain (figure 1 and 2). The critical situation was exacerbated by the crisis related to Covid-19 (European Economic Forecast 2020), showing a slight negative shift in the level of trust in European institutions and in European integration during the first months of the pandemic (Eurobarometer, 2020): Italy (-28%) and Spain (-26%). Moreover, an

uncoordinated response with member states regarding mis/disinformation on Covid-19 has increased distrust in Eu, showing a considerable decline in the sense of attachment to Europe

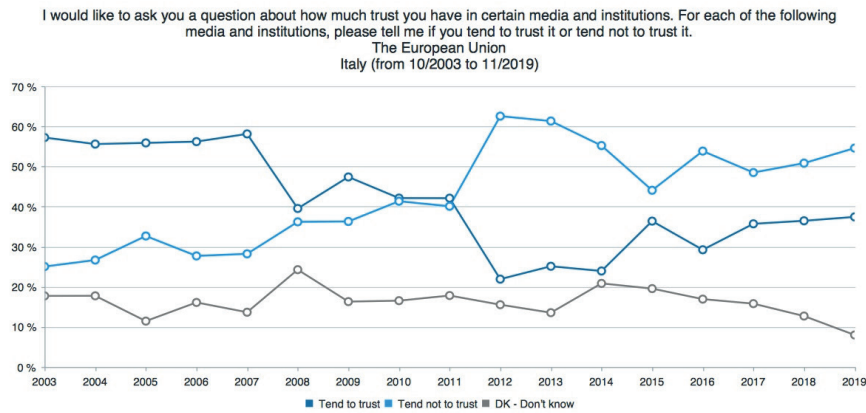


Figure. 1 Italy: Trust in EU, 2003-2019, Source: Eurobarometer, 2019

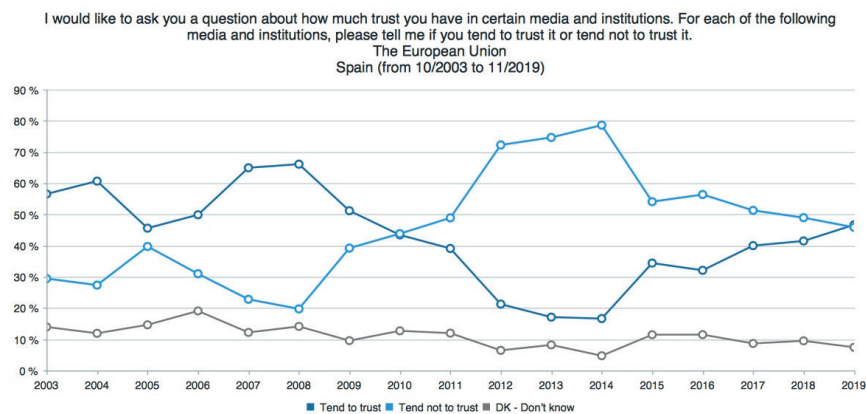


Figure. 2 Spain: Trust in EU, 2003-2019; Source: Eurobarometer, 2019

Especially for young people, again hit by the social and economic impacts of another crisis, the pandemic opens considerable risks for the future and a high level of uncertainty for employability and well-being. Both Italian and Spanish young generation suffer more than older the effects of the economic crisis through high unemployment rate (Eurostat 2019) with feelings of anxiety for the future. On the other hand, some scholars highlight, the Brexit referendum and the process to leave EU unfold a generational cleavage (Norris, Inglehart 2019) with the youngest more pro-European Union than the older (Lubbers and Scheepers, 2010; Lauterbach and De Vries, 2020). So, The Covid-19 crisis and the linked infodemic are extraordinary cases to test the European Union capability to manage the disinformation disorder and to restore trust.

3. Research Objectives and Methods

Starting from these considerations, the research has two aims: exploring students' knowledge of the initiatives and issues promoted on Covid-19; and investigating whether EU communicative actions on fighting disinformation on Covid-19 have influenced trust in EU in-

stitutions. We decided to explore young people response because they are privilege target of the EU initiatives in order to promote sense of belonging and they are the more exposed on disinformation in the digital environment.

We present an exploratory and quantitative study on Italian and Spanish university students (18-25 years olds). The empirical investigation was carried out with a web-based questionnaire on a non-random sample of 1000 Italian and Spanish students during October-November 2020. The survey questionnaire was administered in both country’s local language.

4. Results and Discussion

To further investigate how the EU communication strategy in contrasting disinformation during the Covid-19 crisis was perceived by young generation, we present some results of the survey².

In accordance with other researches (Limaye *et al.* 2020; Reuters Institute 2020), our survey confirms that a good proportion of Italian and Spanish students use social media to raise awareness about Covid-19. Moreover, some studies have concluded that young people use digital media for a range of online activities that are functional of formal educational attainment (Eurostat 2020): for a higher proportion of them (70%) the web is the main source of news about good and services and of other activities related to finding or exchanging information, such as to read online news sites, newspapers or magazines (Reuters Institute, 2020).

At the same time, our research shows how media legacy are indicated as the main sources of reliable information, even if they are the least used to looking for news. The majority of Italian and Spanish respondents (more than 70%) perceive traditional outlets as the most trusted source of news; in contrast one third of young people tend not to trust digital media. We can argue that students are developing critically ability in managing media contents, together with media habits focused on digital and social networks.

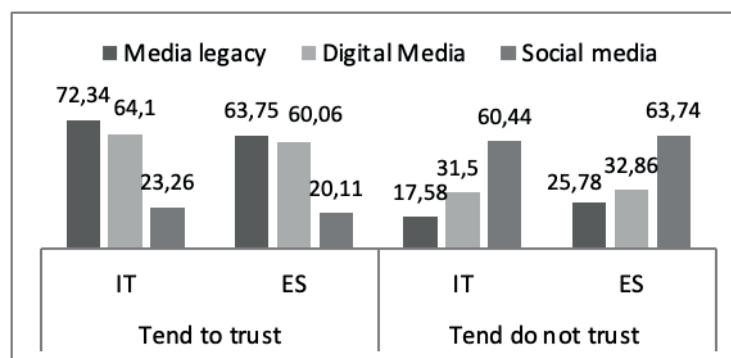


Figure 3. Level of trust in news source

However, this style of consumption has produced the more exposition of youth to disinformation, including all forms of “false, inaccurate, or misleading information designed, presented and promoted to intentionally cause public harm or for profit” (European Commission 2018, p.10). Especially those who use social media or share contents on messaging apps (e.g. WhatsApp, Instagram) come frequently across fake news and images (Ofcom 2019; Brennen, Simon, Nielsen 2020; Herrero-Diz, Conde-Jiménez, Reyes de Cózar 2020). Furthermore, the spread of disinformation on the Covid -19 determinated by the tendencies to turn to social media for coronavirus information increased the lack of timely and trustworthy information raising fears of confusion, disaffection, or loss of credibility toward institutions and public organizations’ activities (Eu DisinfoLab 2020, Lovari 2020).

This critical situation has produced considerable decline in the sense of attachment to EU, which represents a threat to supranational cohesion (Daniele *et. al.*, 2020). However, the research highlights a growing trust in the European Institutions and its steps to combat disinform-

2 For the survey questions we used the same category label proposed by Flash Eurobarometer 464 (2018).

mation and fake news widespread, which is attached to a weak knowledge of the preventive measures adopted. Our data point out more than 50% of young didn't change their confidence after the pandemic crisis, indeed they trust in EU institutions more than national ones. Most of the respondents, over 70% Spanish, declare low confidence in national parliament and government.

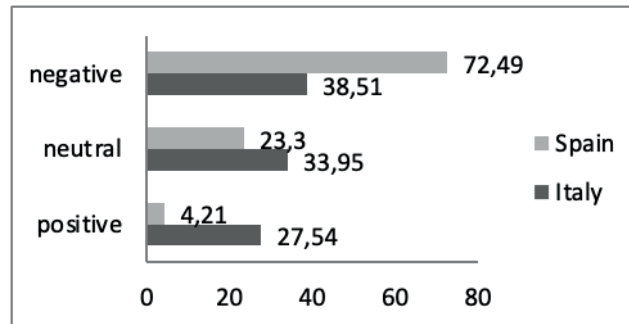


Figure 4. Trust in national institutions during the Covid – 19

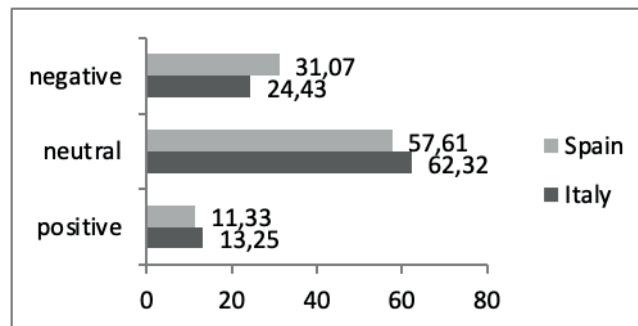


Figure 5. Trust in Eu institutions during the Covid – 19

In conclusion, the data analysis shows that the measures adopted to combat disinformation have influenced the level of trust in EU. Despite the negative effects of this crisis that has produced a significant erosion of trust in national governments, young people still trust the EU (Eurofond, 2020, OECD, 2020). We can argue the new generation remain more optimistic in EU actions than other age groups during the pandemic crisis, perceiving positively the new communication strategies, in particular the bottom up approach to ensure the protection of European values and democratic systems.

4. Conclusion

We can assume that the Eu communicative actions during the Covid-19 have positively impacted in Italian and Spanish students. The positive attitude in managing the effects of this crisis is highest among young people who remain optimistic about the benefits that EU membership brings. In particular transparent and clear communication is considered a key factor in building trust, because engaged and well-informed citizens are the best guarantee for resilient democracies and to counter dis/misinformation. In this perspective the role of public sector communication promoted by the EU institutions and the government of the Member States (Valentini and Nesti, 2010; D'Ambrosi, 2019; Parito, 2016, 2019), is critical in promoting trust and sense of belonging in Eu.

Some limitations underlie the interpretation of these findings mostly related to the small sample size and to the application of study in two European countries. Nevertheless, the study suggests new original trajectories of research through which trust and belonging in EU can understood and analysed. Considering the sociological EU integration studies focused on EU identity (Beck, Grande 2004; Castells et al. 2018), we argue that sense of belonging, which is

founded on values, need cultural, social and political evaluations and not just institutional activities. In the democratic and multicultural scenario, exposed to global flows of information and disinformation, if EU institutions can gain citizens' trust with communicative actions, we argue that sense of belonging need something different. For example, a series of mechanism proposed by institutions but that in the dynamics with citizens produce new meanings.

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Declaration of Interest Statement

The authors declare that they have no conflict of interests.

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Pandemic vs Social Network Site

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Abstract

The pandemic we are experiencing has a substantial difference, the world completely interconnected on the Net, compared to others of the past including the recent ones (Spanish flu). This environment has its "champions" (Facebook, Amazon, WhatsApp, Twitter, Instagram, etc.) that have pervaded our daily lives. Suddenly Covid-19; which imposed physical distancing on us, as a primary form of fighting the pandemic, with the rediscovery of the Net as a context in which to transfer all our activities. The observation is that we were not ready to exploit all the useful potential of the Net, especially in the field of institutional communication.

Keywords: Institutional Communication, Citizens, Institutions, "Social Network Site" (SNS)

Introduction

Let's take a step back. A communication without face to face interactions. It would be easy to respond to the stimulus by indicating the solution in electronic communication tools. These are based on already codified procedures to communicate in times of emergency and crisis. But these definitions and procedures that until now seemed adequate or at least satisfactory are useless. Strong affirmation but necessary to start thinking about "getting to work" in a completely changed global context in a very short time and in new ways. We have learned / taught that most of the communication process is extraneous to words (non-verbal communication), often mediated by technological devices (which, not always, increase our potential). How to communicate on the basis of mandatory technological tools that hide / inhibit, even partially, non-verbal communication (the important part).

1. Background: What is Face-to-face Communication?

We are faced with an efficient communication method that identifies the communicative act, which cannot be transmitted simply through technological artifacts, not as a transmission of contents but sees a communicative relationship, composed of a structure of eight elements, as a complex social phenomenon. The relational model of communication is composed not only of the acting subject, but of the code, the message, the channel, the purposes, the norms, the microcontext and the macrocontext (Gili and Colombo, 2012). Technology has made it possible to rediscover some characteristics of face-to-face contact in the vast world of remote visual communication, also introducing augments or extensions into reality. But not everything is possible or accepted. An example for all - Second Life (digital electronic virtual world of 2003 which has almost disappeared) This has led to the identification of limits which become extremely important in the socio-economic context. Even today we can share the conclusions of a study that examined over 10 years of field and theoretical research, on the collaboration of groups in the presence and at a distance, which faced with the necessary conditions for effective remote work which are: shared knowledge, compatibility between activities, willingness to collaborate and optimal collaboration technology, he concludes by stating that distance will often continue to play an important and crucial role (Olson and Olson, 2000).

2. State of the Art: Today

On the other hand, the quality and quantity of information necessary to reach an exchange of communications will have its own specific modality which will influence the choice of equipment and the effectiveness achieved. Technological tool that can simply replace face to face when possible; assist and complete adequately; and be an enabling factor for new applications deriving from innovation and emergencies, such as the one we are experiencing, the Covid-19 pandemic. New communication technologies have always had complex, and often counterintuitive, effects. The counter-intuitive dimension of change refers to the notion that a new medium of interaction (the "how") is likely to have complex indirect effects not only on how existing types of interaction are carried out or where they are located, but also on what we do. That is when a new tool like SNS facilitates entirely new applications of both existing tools and new tools, for instance when SNS starts to facilitate much more fluid and unplanned social networking. We need some more structured ideas about what role a new or improved tool like SNS might play in communication relationships. Traditionally, in emergency studies, communication-oriented research has centered on the process of responding to institutional warnings and, above all, on the idea that disasters "are the business of public authorities rather than the business of citizens" (Gilbert 1998: 93). In disaster cases, citizens were usually viewed more as people to be saved than as active participants, but the mainstream use of digital and social media is a significant sign that this research can change. Today it is also possible to look at emergency communication from a bottom-up perspective, which brings new questions and new voices to the fore. Over the years and with an improved evolution, two models for the management of the disaster have prevailed with the first, temporally dated; the military model that focused on social chaos and the consequent need for social control. The best models, however, show the attitude of the populations interested in the phenomenon of building communities starting from the fact that they are not completely annihilated and also have resources to make available. Coordination and cooperation should be the goal of disaster management through the possibility of using these resources of local communities also in ways already tested that would lead to effective problem solving and with realistic solutions. The idea, which can be shared, is to involve local communities, with a priority of on-site solutions that mainly involve better preparation of the same, with immediate responses, and efficient recovery also with the mobilization of local community resources. Attentive not only to particular events but also to all technological risks. All centered on awareness of the emergency and we repeat, fully sharing it, on the development of the attitudes of social communities to be able to cope with difficult situations (Dynes 2000). Several studies have been concerned with emergency communication and one in particular, an authoritative source, pointed out what went wrong in emergency communication using social media (OECD 2013). Briefly and schematically they are:

- The risk of not including people who feel affected by a disaster and who can now turn to the blogosphere if they feel they are not being listened to.
- The case of information from another source than the emergency services.
- Information overload.

lastly, both the unpreparedness of organizations for the use of social media and the awareness that the latter is not the new solution to solve all problems, is absolutely acceptable and central to the research line. It should be emphasized that each of them has different characteristics and consequent use in the scenarios that arise in emergency circumstances. On the other hand, social media can be used to improve emergency communication for some pluses related to them:

- they are collaborative and participatory: online comparisons can improve awareness of the emergency situation.
- they are decentralized: the indications can circulate very quickly among the actors, thanks to the tweets, which are immediately available online for all the organizations involved.

- they are popular and accessible: consequently the emergency services can use them to send information or warnings.
- can provide georeferential data: from which it is possible to monitor the development, even temporal, of an emergency thanks to digital traces (OECD 2013).

By underlining these characteristics, it is immediately clear that the PA, despite the efforts, cannot make the most of its potential. We note that, in Italy, the first official document that invites you to enhance the dialogue with social media communities and use them for communication purposes is dated May 2017 (Presidency of the Council of Ministers - Public Function 2017). Currently, the situation, always in the context of regulatory uncertainty, the previous rule was not linked to emergency contexts, it is no different. Even the current rules on emergency scenarios, revisited in 2018, do not regulate communication activities in the emergency phase and are limited to including both information to the population on risk scenarios and related rules of conduct, and those on civil protection planning, in the activities of non-structural civil protection prevention. We have witnessed the pandemic phenomenon. More attention has been paid to public health and risk communication. How do people cope with a public health crisis that brings risk to themselves? We have seen that when a public health emergency occurs, people are typically uncertain about its means of transmission and its consequences (Avery, 2017). The uncertainty surrounding the emergency leads to conspiracy theories and pseudoscientific statements (Dredze, Broniatowski & Hilyard, 2016; Sharma, Yadav, Yadav & Ferdinand, 2016). In general, people tend to seek information to reduce uncertainty and to make an appropriate decision in the face of a health crisis (Procopio and Procopio, 2007; So, 2013). Furthermore, they not only seek information, but also discuss the topic on social media (Seeger, Sellnow & Ulmer, 2003; Sharma et al., 2017). Given the level of uncertainty and the importance of disseminating accurate information about the emergency situation, it is critical for public health officials to better understand people's communicative actions in the digital media environment and, in turn, predict their readiness to follow government directives during a public health epidemic. Risk communication is defined as "the exchange of information between interested parties on the nature, extent, significance or control of a risk" (Covello, 1992, p. 359). When it comes to addressing infectious diseases, risk communication becomes extremely important to reduce uncertainty and increase the dissemination of accurate information to the public. Accurate information during a public health crisis helps reduce confusion and prevent further crises. When considering the digital media environment, in particular, it is crucial to understand how people select and transmit information related to infectious diseases. This is because people in a digital multimedia environment (e.g. Facebook and Twitter) are able not only to receive news from other people or organizations, but also to easily spread health information on their social network. The data of the 15th Communication Report, October 2018, by Censis revealed 1 user out of 3 trusts social networks less; 1 out of 4 in the case of websites, blog forums online. For radio, television, press, including online newspapers, the phenomenon is limited to less than 1 in 5 people. By delimiting the field in search of information online, it should be noted that Facebook: minus 15.8% (age 14-29), minus 9.1% total population and search engines: minus 9.2% (age 14-29), minus 7.8% total population. So much so that the Censis in April 2021 affirmed: There is a further risk that has emerged strongly in the last period: even official information and that conveyed by traditional media and online media, in the presence of an unknown event of individual and global significance, produce a lot of confusion and generate disinformation. These risks are all the more widespread the more the news is specialized

3. Theoretical framework of STOPS.

STOPS includes the premise that a person uses communication on purpose to solve a problem (Kim & Grunig, 2011). The theory explains why and how individuals become active in communicative behaviors to solve problem situations (Kim & Grunig, 2011). In particular,

STOPS envisages individual communicative behaviors of selection, acquisition and transmission of information through situational motivation and its antecedents in problem solving. The STOPS framework explains that three perceptual variables – problem recognition, constraint recognition, and engagement recognition – increase situational motivation for communicative action in problem solving (CAPS) (Kim & Grunig, 2011). By recognizing problems in the context of an infectious disease, a person can recognize the impact and spread of an infectious disease as a problem. The recognition of constraints in STOPS is defined as a situation in which “people perceive that there are obstacles in a situation that limits their ability to do anything about the situation” (Grunig, 1997, p. 10). Finally, STOPS defines engagement recognition as a perceived connection between oneself and the problem (Kim & Grunig, 2011). When people perceive the potential impact of a public health crisis on their well-being, their intentions to take communicative action will increase in order to solve the problem (i.e. avoid becoming infected with the disease). According to STOPS (Kim & Grunig, 2011), the recognition of problems, constraints and involvement is perceptive and situational; the three perceptions of a problematic state jointly affect motivation and cognition. When individuals perceive that a given situation is more problematic, that they are connected to it, and that they have fewer obstacles to overcome, they are more likely to be motivated for active communicative behavior to solve the problem. The proposal is based on well-established assumptions, such as stating that when an infectious disease erupts, public health facilities must increase the level of awareness, perception and support of the common public for government actions. All this which was the basis on which to build an adequate response from all the players on the field, was not there. It is proposed to conduct a survey to predict the communicative action of the identified public and its behavioral intentions in order to follow the indications of public health structures within the theoretical instrumentation of STOPS. If the communicative actions of institutional communication guide an audience willing to promptly follow the indications of health organizations, the environment of social network sites - SNS can be crucial in pandemic contexts. From the point of view of effective risk communication, it is imperative that people are ready to follow the instructions of healthcare organizations promptly. In the digital media environment, solid scientific information and credible health sources have become even more crucial.

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The Unsettling Thriller Genre: Revisiting Narrative Convention of Pandemic Film.

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Abstract

Generic conventions aid audiences to comprehend a film framework, identify characters, settings and narrative trajectories. According to several film critiques, thrillers are about real life mystery, criminal conspiracy, suspense, and images of blood, as the dominant components. Films about pandemics, according to film critic, Roger Ebert, contain aspects of science and the impact on people's lives, as well as how their very existence is suddenly threatened because of a virus outbreak. This study aims to investigate the thriller conventions narrative which stands in contrast to pandemic film conventions, as it is unmatched in thriller films from Hollywood's industry-made canon. This study will revisit and revise four pandemic films released after the millennium by considering the decade as an inception to the global pandemic era. This paper uses textual analysis of pandemic films and examines the narrative conventions of films in the thriller genre to find out why pandemic films are so utterly dissimilar from those conventions. This study employed Chatman's five elements of Plot Constituents and analyses the pandemic film corpus of (*Contagion*, 2011, *The Craziest*, 2010, *Carrier* 2009, and *The Happening* 2008), which are dissimilar to thriller narrative conventions. The findings showed that all four narrative conventions in pandemic films are consistent in highlighting the issue of pollution that is linked to infectious diseases.

Keywords: pandemic films, narrative conventions, film pattern and genre.

Introduction

The concept of categorizing a genre is beneficial as it functions as a shorthand description of a film in a simple manner, serving to structure and clarify the analysis of creative texts. According to Lanjari (2016), art as part of culture is born, grown, and developed along with its social environment, and never stand-alone or separated from its society (Kayam, 1981, p 38). Art in this case presents two issues. The first is a film that works as an artistic communicable to deliver knowledge about a virus, and the second is a film that looks like a disaster film, but is deemed a thriller by the film industry community. However, regardless of the cultural text, it seldom fits perfectly into the discrete categories of genre expectation or of any kind of prescriptive categorization. Rick Altman (1999) argues that the categorization of film genres is always problematic because much of genre theory is a discourse that follows certain rules, but is contestable to the evidence of the film themselves. He argues that the film genre is hardly fixed or discrete, and probably never has been. This could be possibly due to Hollywood's practice of mixing genres within individual films to broaden the audience's interest in their cultural productions. The pattern for the generic operation of pandemic films that this study will seek to identify is an adaptable one; for example, the films are defined as thrillers by IMDb, a credible movie and TV website. This study employed textual analysis to explore the pandemic film conventions by analyzing their plot pattern in the following films: (*Contagion* (2011), *The Craziest* (2010), *Carrier* (2009) and *The Happening* (2008).

1. Background

The pandemic film releases after year 2000 are likely to present fictional viruses that correspond with the actual viruses that exist around the world. Briggs and Nichter (2009) pointed

out the 21st Century pandemics—SARS, Avian Flu, Ebola, pandemic influenza—are marked by what is referred to as bio-communicability. These viruses including the recent covid 19 are virulent which capable of killing people in a short of time. These viruses are easily transferable from an individual to another that can lead to death. Gaspar Mairal (2011), posited that the idea of the pandemic threat is formed by the news media and pandemic events. He also perceives that the idea of pandemic narrative is concerned with public health and beyond where the media brings knowledge about pandemics to the general audience. The pandemic narrative has intrigued filmmakers' interest to the extent of producing such films to increase awareness of communicable despite knowing that pandemic films tend to be dry and not as welcomed at the box office. Filmmakers has speculated that the existing virus can become serious like the Spanish Flu due to air travel, their concern is not without basis. Severe Acute Respiratory Syndrome (SARS) is a respiratory illness that was caused by a coronavirus, (SARS-CoV). It was reported that the illness spread to 29 countries, where 8,096 people were infected and 774 of them died (Kenneth, 2018). Soderberg and Scott Z Burn in an interview with New York Times (2011), admitted that the Nipah virus inspired them to produce *Contagion*. Both filmmakers wanted to create awareness among society about the dangers of viruses that can spread easily due to air travel. However like other Hollywood films, such movies should be dramatized to give a cinematic impact to the audience. The portrayal of a terrified society and fragile government to handle the pandemic are key narratives conventions. After twenty minutes into the film, images of people around the world being infected are presented in mosaic which indicates that the virus had spread across different continents.

In *The Happening* the director and screenwriter M. Night Syamalan said the idea of his film was based on plants that release airborne toxins which can rewire the human brain. The plants contain neurotoxins which trigger a reverse-survival instinct by prompting people to kill themselves. (Hart, 2008). The scenes in the film show people committing suicide in big cities across America and Paris either by jumping from tall buildings or killed themselves by using sharp objects. The scenes suggest that the representation of the virus from the plants is harmful and contagious. Similar to the representation of the virus in *The Crazies*, the toxin turned the people of Ogden March into killer maniacs where later shows how the virus becomes contagious. The original writer George A. Romero said the idea of the film was inspired by the bio weapon that was used in Vietnam War. The bio-weapon resulted in human deformity and in some cases, death. He translated his concerns of a possible pandemic by creating the fictional virus Trixie. In the film, a scene shows hunters finding a military plane that had chemical on board that was submerged into a river and contaminating the drinking water supply of the residents. In *Carriers*, most of the scenes show the viral pandemic survivors were surrounded by streets and cityscapes. The writer Alex Pastor speculates that the pandemic is capable of wiping out human population and eradicating international border system. As such, pollution is a key theme signature in pandemic film narrative conventions, which surrounds fictitious viruses that are presented in various plots.

The pandemic narrative is not recent. The first film about pandemics was released in 1931 and was followed by few pandemic films. The films mainly showed sickness caused by diseases that have a specific time and place configuration of either biological, environmental, zoonotic disease or hybrid entity. Historically, each pandemic film has presented the pandemic narrative as novel, disquieting, unfamiliar and deadly. Other films about diseases also exhibit death but with nowhere near the emotional and institutional impact. The pandemic narrative is presented as an unfolding crisis, reflecting our world's technological capacities and its interdependencies. For example, almost all pandemic films portrayed novel viruses as powerful change agents which are able to make a country's entire healthcare systems collapse. The narrative of pandemic films cover issues that might happen in future, but are not set in imaginative or futuristic era.

This study will use the term "an emergency" to explain that the pandemic is not a phenomenon as presented in other disaster films. Emergency refers to any natural or man-made

situation that may result in substantial harm to the population or damage to property (Shen and Shaw, 2014). Emergency can also be defined as a state in which normal procedures are suspended and extra ordinary measures are taken to save lives, protect people, limit damage and return conditions to normal (Alexander,2003; World Health Organization(WHO,2002). Technically, the aspects of disaster presented in these films are related to emergency rather than disaster because of a difference in time line between the two events. A disaster is something that has already happened, while an emergency can still be pending (Lighthouse Readiness Group, 2015). In addition, in considering a virus attack as an emergency concerning public health and policy, World Health Organization (WHO) and Center for Disease Control (CDC) are the agencies that managers all epidemic and pandemic around the world. It is impossible for a country to manage the issue of viruses without the aid of the CDC and WHO. Therefore, after considering the issue above, environmental pollution suitably frames the narrative of pandemic films.

2. Materials and Methods

This research uses textual analysis to identify the pattern of narrative conventions by analyzing the visual clues and the interpretation of cinematic form of these films. The method “itself involves stretching out the cinematic image to allow space and time for associative thought, reflection on resonance and connotation, the identification of visual clues, the interpretation of cinematic form and style”(Mulvey, 1975).

Previous scholars generally refer to plot as an event and characters actions in a story and how the arrangements in turn lead to motives and consequences. Over the decades, plot has gone through many changes, although the basic structure remains, which aimed to systematize the development of narrative interest. However, contemporary narrative structure can be traced to global events and situations. Among them are (Props,1968) thirty one narrative functions and (Todorov,1971) scheme of equilibrium. Other plot structures are more complex such as constellations of story words and characters private worlds (Ryan, 2007), patterns of coincidence (Dannenber, 2008) and human experience (Booker, 2006).

Meanwhile, Chatman defines plot as ‘story as discourse’, which stresses that story events are reordered through narrative discourse. The contemporary plot structure according to previous scholars can be either historical narrative, which employ the actual events or fictional narrative which is plotted without reference to actual events. The researcher believes the difference between the two narratives is unquestionable as it is accepted by readers. More importantly, a narrative must be meaningful and be able to relate plot and story. Chatman regards beginnings and ends are only meaningful in the realm of discourse. To Chatman, plot is not necessarily in chronological order. His concept of plot includes events, characters and conflicts. Therefore, these factors are essential to constitute a plot. Chatman also states that story helps explain the relationships between events in a process of narrative. Chatman outlines five elements of Plot Constituents. The first is exposition in which the narrator tries to lay out the time, place, local color and participants, which in film language is known as introduction of the film time, characters and settings. The plot in *Contagion* was varied as there are many key characters in the film. In *Contagion*, the scene starts on day two by showing the first group of victims were at the same casino at the same time in Hong Kong and the virus carried by them then spread violently after they reached their respective home countries. When the virus became an outbreak on day 3, the CDC lead by Dr, Cheever urges his staff, Dr, Mears and Dr, Hextall to work hard on treating the victims and develop a vaccine after the report showed the number of deaths had reached 275,000 worldwide. At the same time, another plot is developed to show Allen, a blogger journalist and conspiracy theorist, who thinks that the virus is caused by worldwide fish poisoning. Meanwhile, in Switzerland, the scene shows Dr, Orantes who works for WHO being briefed about the mysterious virus that caused infections in the US, Hong Kong, Japan, and London where she was then sent to Hong Kong on day 5 to track the movement of Beth the host of the virus.

3. Results and Discussion

In *Contagion*, the plot was given a twist, where the last scene shows Beth in a casino in Hong Kong. The scene is a flashback to show how the pandemic started. The casino scene exhibits everybody happily socializing with each other. The plot began with Beth at the airport coughing while waiting for her flight home and the camera then cuts to show other characters from different nationalities arrive in their home countries, show similar symptoms which indicates that they were infected too by the virus.

The Crazies begins with a long Shot of the raging fire that burned the town, and ends with the whole town exploding in to ashes. The scene thus, instills curiosity in the audience to of what is actually happened. As the film progresses, the scene shows a beautiful, serene and occupied town with people enjoying themselves. The plot of *The Crazies* begins with a long shot of a peaceful town where everybody is doing their daily activities. The camera focuses on the sheriff's hand on the wheel, and his badge suggests that he is the authority or the person in-charge of the town of Ogden Marsh. The scene then changes to show a lady doctor and her assistant in a clinic having a conversation. The doctor is the sheriff's wife suggests that she is a main actor as well. As the film progresses, we are able to see the town people are excited watching a baseball game.

Carriers begins its opening scene by showing four friends, Danny, his brother Brian, his girlfriend, Bobby and Kate, who are Danny's school friends on the way to the beach which the brothers are convinced is a safe place from pandemic disease. This exposition stage emphasizes on their driving down an empty road, passing abandoned towns with no humans in sight, which instill curiosity as what actually happened. Meanwhile, the introductory scene of *The Happening* shows a science teacher, Elliot, explaining to his students about an insect. The classroom scene is quite lengthy because it depicts a question and answer session between Elliot and his students. The exposition purpose is to reveal details of the precedency that surround the narrative. The first stage arouses the viewer's curiosity as to what is actually happening here? Usually the death scene appears in the middle or towards the end of the film in contrast to pandemic films where the deaths scene are shown ten to twenty minutes into the film. Life is threatened and the characters' being unable to predict what dangers they are running into is the embodiment of the pandemic plot.

The second is complication in which problems occur that contribute to the story development. At this stage, the audience is be able to see the main issue, usually being a problem that arises. In *Contagion*, the complication began after Beth starting having seizures and was foaming at the mouth in her kitchen. At the same time, the scene cut to show other people in Tokyo, London and Hong Kong that had contact with her in a casino in Hong Kong succumbing to exactly the same symptoms. The situation forced the CDC and WHO to investigate the virus and its origin. The complication stage exhibits how key characters in a casino were sick after they reached their home countries. The symptoms of the mysterious sickness were displayed by the techniques of fast cuts from one victim to another victim. In this stage the situation worsened when the victims were pronounced dead.

In *The Craziest*, the complications begins when the virus starts infecting the townies. After fifteen minutes into the film, the scene shows a crowd watching a baseball game. Suddenly, the game is distracted when a man with a rifle walks into the field and tries to shoot the players. The man acts strangely and the sheriff assumes that he is under the influence of alcohol. After reasoning with him to put down the rifle, the man refuses and tries to shoot the sheriff. However, the sheriff manages to stop him by shooting at him in an act of self- defense. The man is the first virus victim and the scene presents the second part of the film's narrative's structure. The complications begin when the hunters find the pilot's body in the swamp and the situation worsens after the results of the post-mortem found zero alcohol in the man's blood, suggesting that his strange behavior is associated with a virus infection. The sheriff later goes to the mortuary to check on the where he was attacked by the undertaker who is trying to kill him. As the sheriff's assistant walks in, he immediately guns down the man. The man was infected

as well. The third victim with strange behavior has burnt down his house with his family in it. The cause of this crazy behavior was revealed when the body of the missing military plane that carried bio-toxic chemicals was found in a river that supplied water to the town residents. The later scene shows the repeated mysterious camera that constantly follows the sheriff can be seen in a few scenes, suggesting that the sheriff is under the supervision of 'someone'. The camera then suddenly zooms out from the figure of the Sheriff followed by a satellite image of Ogden Marsh suggesting that the government is aware of the existing virus.

The complication in *Carriers* begins from the road scenes. In this scene, the audience sees a lone group of people driving on the way to the beach on the empty road where suddenly they are stopped by Frank and his infected daughter Jodie. Both of them are stranded due to their car running out of fuel. The group did not stop to help Frank, but continued their journey until their car broke down. The four returned to Frank to take his car, but ended up taking Frank and Jodie along to an abandoned school, which had been converted into a temporary hospital. This scene suggests that the virus has infected million people which has forced the government to convert a school into a hospital to treat those infected. This scene also shows a shortage of staffs and equipment that makes the situation worsens, in which we see many children die untreated. In conclusion, the complication in *Carriers* appears when the couples meet a man named Frank and his daughter whose car has run out of fuel. He needs them to help his daughter, who has evidently been, infected by the virus, to the hospital. After deciding to travel together to the hospital, they discovered that the daughter could not be cured and abandon them at the abandon hospital. They continue their journey without realizing that Bobby too was infected and has complicated the situation.

The Happening sees the New Yorkers suddenly acting strangely by committing mass suicide.

This strange behavior is reported by the media as caused by a bio-terrorist attack. The suicide epidemic then quickly spread to other cities in the United States forcing Elliot, his wife Alma, his friend Julian and daughter Jess and other city folks to leave the city by train and travel to Harrisburg. The train has to stop at a small town because the train loses all radio contacts end-route. Julian decides to find his wife in Philadelphia and leaves Jess with the couple. The couple and Julian's daughter meet a nurseryman and his wife and decided to ride with them to safer places that are virus free. On the way they are joined by other survivors and split into two groups. When members in the groups start repeating words, Elliot realizes that the groups are infected by the toxin. The scenes in the Central Park and construction site in New York indicates the complication arises in *The Happening* when the scenes shows the public strange behavior by repeating words and killed themselves. In this stage development, the participants are aware of the situation and are ready to take action either by helping the authorities or running away. Obviously, all selected films displayed similar acts among the main casts –running away from the pandemic situation. In regular thrillers fight and chase scenes are common methods, but in a pandemic the methods are either stay and find a solution as in *Contagion* or escape from the pandemic zone as shown in the others three films. However, the thriller complication stage of the suspense element usually begins in this stage.

As the film progresses, which marks the third part or climax, *Contagion* shows the virus speedily spreading and infecting many people. Realizing that the killer virus has begun to run amok, the authorities, in this case WHO and CDC take charge to curb the virus by hunting and testing a vaccine antidote where the main action they took were quarantine and prevention policies. The third constituent, which is the, climax displays debacle. At this stage, everything is botched up and the participants will do everything to resolve it. The pandemic in *Contagion* has reached dangerous levels where the scene shows digital world map in red color suggesting that the virus has spread to almost every country and killed millions of people. Later scenes show that Dr, Mears has also been infected in the following scene, she is covered in a translucent plastic bag and waiting to be buried in a mass grave. The camera cuts to a scene that shows situation in Hong Kong where Dr Orantes is kidnapped by the Chinese as a ransom in exchange for vaccine. The climax scene can be seen when the CDC has a press conference,

stating that the pandemic has killed 26 million people worldwide. At the same time, the film shows the scene of empty buildings, offices, streets, and place of worships that suggesting that many people had confined themselves in their homes and did not leave for several days.

The scenes in *The Craziest* shows a series of anxiety inducing and suspenseful feeling when the town was infected, and the narrative structure at this stage is surrounded by an indecisive leader who refers to the sheriff as the sole authority in the town. The scene later shows that he is in a dilemma; should he work together with the military to restore peace to the town or escape from the town? At this point, the preventive and quarantine policies are enforced. In order to stop the virus from spreading to other cities, two acts were displayed in this part of the story. The first act was exhibited in the scenes of the government response to the virus attack by having to quarantine the whole town, and the second acts shows an attempt by the Sheriff, his assistant, the sheriff's wife and her assistant to escape the town. The sheriff team's escape is considered as the climax because there are many scenes at this stage which provides audiences with feeling of suspense and anxiety. The peak of the film is started when the armed forces take charge and lockdown the town. Then, they build a field hospital at the high school, followed by separating sick people from healthy people to avoid the virus from becoming contagious.

The Craziest shows a series of focused shots and scenes emphasizing that the virus has spread quickly and infected many people. The field hospital scenes suggested the pandemic situation is crucial that forcing the military to interfere. Meanwhile, in *Carriers* the climax commences after the survivalists found themselves at the abandoned resort. The scenes in *Carriers* were similar to *Contagion*. Both films show repeated scenes of abandon places with no humans suggesting that the pandemic has caused mass death.

The Happening climax can be seen when Elliot and others escapees were trapped in the county where the virus already spreading. At this stage, Elliot discovers that trees caused the virus. The wind and tresses released a toxin that makes an individual's becomes lunatics and suicidal. Therefore, he splits the group into smaller groups (Elliot's family, Jess, Josh and Jared) and continue their walk to a model house. While they are leaving the model house, another group arrives, but the property is already infected with a toxin from wind blowing the tresses. They stop at house that has been sealed by the residents of the house. Josh and Jared ask the residents for food and are shot to death as the residents believed the group were infected. There are two significant scenes in this stage. The suicidal scenes are shown in a dramatic way suggesting the seriousness of the pandemic. Another scene shows empty buildings, streets, cities and towns which is regarded as a hallmark for pandemic films. I describe the scene as 'eerie to the bone' which means upon seeing these images, the audience experiences very deep feelings that affect and disturb them regarding the possible situation that might be happening in the future; only when and how it happens is another question mark. Echoing Scott Burn, the screen writer for *Contagion* predicted the possibility of pandemic in future, but the question he pose to the journalist was 'of when'. He also imagined all the scenarios except the incompetent government in response to the emergency of the pandemic. (Washington Post, 2020).

The conflict stage sees the issue affecting action and psychological among actors. In the film, we are able to see images of suffering or other unpleasant images displayed by the actors. Usually at this stage the participants attempt to restore the situation if faced with various hurdles. In *Contagion*, the conflict was tense in the scenes between Dr Cheever and Dr Hextall when the CDC reported 26 million deaths from the pandemic, but the vaccine was not yet ready. Dr Cheever was seen as a stern boss as displayed in a scene where he is pushing Dr Hextall to speed up the vaccine process. Psychologically, any individual who loses their family members to natural disaster will feel emptiness enveloping them. In the other three films, feeling of loneliness, fear, anxiety, and panic force the viewers to suspend reality in regards to a possible pandemic happening in the future.

In *Craziest*, the conflict began when the couple's assistants were infected, forcing the couple to continue their journey without them. A similar scene occurs in *Carriers*, where the conflict began after Bobby was infected, and they had to abandon her at an empty gas station and

continue their journey without her. This scene suggests that during the pandemic, compassion and sympathy were missing because everyone was only thinking about their own health and safety. *Carriers* and *The Craziest* show that in the midst of a pandemic, people often suffers from selfish and narcissistic moralists. This act was reflected by the trio as they continue their journey, and on the way they were blocked by two women desperate to get fuel for their car, but Brian has lost his senses and ended up shooting the women where in return he was shot in the leg by one of the women. They continue the journey and stop at an abandoned house in search of medical supplies to treat Brian's wound where Danny found that his brother was infected too. Kate urged Danny to leave Brian alone in the desert. Brian refused to be left alone and keeps the car keys. Danny plead and finally Brian gave the key and urged Danny to shoot him.

The conflict in *The Happening* was exhibited in a series of scenes when the virus was travelling fast across the whole country forcing the government to impose policy on citizens to quarantine themselves in a safer place such as a houses or buildings from the toxin virus. In this film, the technique fast cut was used to show citizens locking themselves in their houses, bathtubs, and in garages, while listening to radio and watching TV about the news on the virus. Meanwhile, Elliot and his family later find Mrs. Jones' house and spend the night there. The next morning, Elliot found Mrs. Jones was infected by the toxin virus and locked himself in the basement. Meanwhile, Alma and Jess were in a separate house at the back. Elliot tells them what happened to Mrs. Jones and warns them about the threat through old communication tube. Later Elliot, Alma, and Jess decided to walk out from their shelter and meet outside the buildings towards each other and find that they are uninfected although the wind is blowing strongly. The quarantine, lockdown, and home isolation were another hallmark plot where it should be given attention to detail on how to deal with a pandemic, except in *Contagion*, where the Standard Operating Policy was presented in detail in a few scenes. These scenes I describe as 'torment of imprisonment', where all characters have been subjected to confining themselves in their domiciles until the pandemic situation is resolved.

The last stage is denouement, which is considered as the folding stage. The last stage in the film is usually associated with restoring order where the issue in almost solved. In the final stage, the film exhibits that a situation of normalcy has been restored. The cure has been found and the cities or town are declared as a clear zone. In *Contagion*, towards the end of the film, viewers are able to see the scene of a sunny day with people lining up to get a vaccine which is associated with the beginning of a new status and new life and possibly of a virus free zone. However, the ending of the film shows a flashback of how the pandemic started. In *The Craziest*, the denouement was brief in which the final scene exhibited the town had vanished in mass explosion and the film implemented a long shot on the sheriff and wife who escaped the town and survived, with the city buildings in the background suggested that they were immune to virus and would start a new life in the city. The film was considered ferocious because the authorities acted mercilessly by destroying the town and not doing their finest to solve the pandemic. This scene shows that, in the worst situation, the authority has no option because everyone in the town was infected and at that particular time, no cure was found. Although absent discussion among the government and the local authority was exhibited in the film. The film suggested that the virus was too dangerous and lethal, therefore the authorities decided on an unsympathetic severely inhuman in human act by destroying the town. The tough decision had to be made to save the virus from spreading to other places.

The denouement in *Carriers* was considered brutal and merciless. When Brian realized he was infected and would not survive, he demanded Danny to shoot him, which is a quick way to die. With a heavy heart, Danny shoots Brian and later burns him. Kate and Danny continue their journey to the 'safe' pandemic free zone beach. The merciless act in this film is important to show that a person can be inhuman and loses their sense of love and becomes too individualistic in order to survive. Killing their own flesh and blood is not an option but a must to save others from the virus.

In *The Happening*, the denouement was exhibited in a scene where Elliot, Alma and Jess have adjusted to their new life. On a TV show, an expert discusses the epidemic from trees may be a warning and might be a threat to humans. Later a long shot of a garden in Paris is struck by the toxin virus. The film ends with people screaming as the wind whistles through the tresses.

The denouement concludes the constituent in which the crucial situation was resolved. For instance, in *Contagion* the denouement was managed when the vaccine was found and the government successfully restored the situation. In *The Craziest*, the military restore the denouement by brutally burning the town to stop the pandemic from spreading. The scene ends with the town exploding and the couple walking to a new life which means living in a city. The *Carriers* ending is loose because the film did not show any authorities managed the pandemic. Meanwhile, in *The Happening*, the pandemic was temporarily over when the virus disappeared. However, the ending shows the virus had reached Paris and was possibly airborne.

This summary result is to identify the similarity patterns of pandemic films which are based on Chatman's theory. All films present similarities in the exposition stage in which the citizenry enjoy their contented life. These can be seen in various scenes in the beginning about ten minutes into the films. As the films progress, the narratives change to complication where we see the citizenry losing their senses and lives after the virus attack. At this stage, those who are infected die instantly or suffer for a few days. This is in contrast to the zombie narrative as it offers a view of the world where the citizenry lose their emotion and turn themselves into a living corpses. In the climax stage, all films present worsened situations forcing them to escape the contagious area. These survivalists try to escape and some of them die before they reach their intended destination. In thriller genre, the climax stage usually has twists and turns compared to a pandemic which is aligned and direct.

As the films continue, conflict in thriller films is to restore justice. Meanwhile pandemic films present the action taken by the authorities by forcing quarantine or isolation policies or separating these infected from uninfected individuals. The last phase of the pandemic film is denouement, which differs between films. *The Craziest* and *Contagion* show the peace has been restored when the contagious town was destroyed in *The Craziest* and a vaccine works in *Contagion*. In *Carriers*, the pandemic situation was not shown, but the film ends with the survivors' successfully reaching uninfected beach. In *The Happening*, the film shows peace has been temporarily restored, however the endings show another possible outbreak might occur. Hence, the virus issue within the ending appears to be unresolved and possibly becomes another pandemic.

4. Conclusion

These films present an outbreak plot that integrate with emergency in which the pandemic requires immediate respond from the authorities to protect people and save lives, and also restore the conditions to normalcy. Throughout these films progression, issues related to environmental pollution create the respective viruses which later cause a pandemic are highlighted either at the beginning, middle, or the end of the film.. The governments immediate was to save lives by imposing lockdown, isolation or quarantine to separate infected and non-infected individuals. The plot is associated with the speculation of a possible future pandemic caused by animals, plants, or water that contains a toxic substance or bacteria that pollutes the physical world. The bacteria then transforms into a pathogen which makes the virus lethal and rapidly kills people. The killer virus usually comes in different forms which can causes mass human death, resulting in a nation's collapse. Although films are an artistic way to communicate about issues surrounding viruses which some of us may take lightly, however, these films have also been used as a reference by the public and government in handling and understanding the recent coronavirus pandemic Covid 19.

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Declaration of Interest Statement

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