

Key Words

Associated with the COVID-19 Pandemic. Comparing the Media and the Public Agenda

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Abstract. *Based on recent ramifications of the traditional agenda-setting model, this paper aims at analyzing the convergence of the media and the public agenda in times of crisis. Specifically, drawing upon the network agenda-setting theory, this article explores the main key words associated with COVID-19—related topics in both the media and the public agendas. Main findings suggest that the media used context dependent key words to refer to the pandemic. At the beginning of the pandemic, in March 2020, both television and online news stories referred to issues related to the virus itself, to the measures taken to limit its spread, and to some medical conditions, while in January 2021 media focused on key words related to vaccination and immunization. In terms of public agenda, results show that people tended to refer to pandemic-related issues mainly in negative terms, due to both media exposure and, presumably, personal experiences. These results offer valuable insights into the dynamics of both media and*

public agenda in the context of the COVID-19 pandemic, providing fertile ground for better understanding how media shape several public attitudes and behaviors.

Keywords: Network agenda-setting; Media agenda; Public agenda; COVID-19 pandemic.

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Introduction

Communication researchers are currently engrossed in unveiling the role media play in shaping how people think, act, or react within certain contexts. One particular way of analyzing this is by studying agenda-setting effects. According to the traditional agenda-setting hypothesis, media are successful in telling people what to think about, in giving them the main topics of discussion (McCombs & Shaw, 1972). Network or third-level agenda setting, a more recent ramification of this theory, assumes that media do even more than initially expected in the sense that they can provide complete “pictures” about certain topics; the media do not offer the public only the order of importance of the issues and their attributes, but also the connections between them (Cheng, 2016; Guo, 2012; Guo & McCombs, 2011, 2015; McCombs *et al.*, 2014; Vu *et al.*, 2014). Furthermore, the role of news media on public opinion and behavior differs according to the context. Some scholars argue that media significantly contribute to shaping public opinions, attitudes, and behaviors in times of crisis (Dearing *et al.*, 1996). This happens because during crises people tend to turn their attention to the news media “for critical information about what to expect, who is effected, and how to behave” (Krupenkin *et al.*, 2020) and to actively seek out news to “gain access” to social reality (Gamson *et al.*, 1992). The latter behavior is explained with reference to what is known as “the need for orientation” (NFO) (McCombs & Weaver, 1973; Matthes, 2008); the higher the need for orientation is, the higher the agenda-setting effects are. A high NFO is associated with two components, namely relevance and uncertainty; if people are exposed to relevant topics and if they are uncertain or unsure about them, then they tend to follow the media. Therefore, the crucial role of the mass media in times of crisis can be explained with reference to the fact that, in times of crisis, even the simple presence of a topic on the media agenda and the repetitive exposure of the audience to that topic significantly influence how people perceive the importance of that topic and further relate to it (McCombs & Shaw, 1972; Chakraborty & Bose, 2020).

As already mentioned, determining agenda-setting effects during the current COVID-19 pandemic is important for some reasons. One of them is that both traditional and digital news media “can reach people at the grassroots” (Medina *et al.*, 2021). Statistics show that most of Romania’s households (99.6%) receive TV services, with cable TV dominant (Romania Insider, 2018) while over three quarters (78.2%) of the households in Romania had access to internet networks in 2020 (Romania Insider, 2021). Therefore, there is ground to believe that news media (irrespective of its form) can have the power to disseminate crucial information about various topics, mainly about those to which people did not have prior direct experience with (COVID-19 topics included). By offering them the topics of interest, by exposing them to a certain order of topics, media can make some issues more salient in people’s minds. Another reason is related to the fact that media do have the power not only to direct people’s attention to certain topics or details (through framing), but also to make them think about those topics in a certain way (i.e., by borrowing certain words specifically used by the media to report on these events). Thus, taking a look at the main key words used by the media with reference to a certain topic can be useful when trying to explain certain public opinions, attitudes, and behaviors. For example, in crisis situations like the COVID-19 pandemic a thorough analysis of the key words used by the media to describe the events might explain certain public attitudes and behaviors such as trust in institutions and people involved in managing the pandemic, different levels of compliance with the measures taken to limit the spread of the virus, and even attitudes towards vaccination as a solution to achieve herd immunity and put an end to the current sanitary crisis.

Given this context, this paper aims at revealing if and how the media and the public agendas are convergent in terms of the main key words associated with COVID-19–related topics in both a peak event period (i.e., the period of the national lockdown in Romania, in March 2020) and a routine period (i.e., a period when no very significant event was taking place, in January 2021). The originality of this research resides in the fact that it is the first in Romania so far and among the very few academic works already published on the topic of agenda-setting in the context of the COVID-19 pandemic (other published research papers belong to Gjylbegaj, 2021 and Medina *et al.*, 2021). Furthermore, this research is intended to shed more light on the importance of agenda-setting effects in times of crisis, with particular emphasis on the third-level or network agenda-setting (NAS) effects. In this respect, we aim at determining whether people “borrow” COVID-19–related words from the media when referring themselves to such topics, in an attempt to offer some explanations about the importance of news media in driving people’s opinions, attitudes, and behaviors.

Theoretical framework

The agenda-setting theory. Historical development

The agenda-setting theory has a long and rather disputed tradition. In his book *The Press and Foreign Policy*, referring to the power of the press, Cohen (1963, 27) noted about the press that “it may not be successful much of the time in telling people what to think, but it is stunningly successful in telling its readers what to think about”. In other words, (Cohen, 1963) referred to media as the interface between all the other components of a state, mandated with the role of reasoning and dialoguing on issues of public interest. Due to the societal complexity, by setting the public agenda, the communicators retain facts intended for mass consumption, thus contributing to the condensation of hyperreality. Scattered events become part of the decoding and orchestration rituals of the media, anticipating the possible consequences by presenting them (Baudrillard, 1994). Transformed into a media construct, the reality offered to the public is recommended to be cohesive through diversity and in line with the need for information that functional democracies demand from the citizen.

The beginnings of the agenda-setting theory can be found in Walter Lippmann’s (1922) scientific discourse. Individuals do not act according to reality, but rather through their own constructs of this previously internalized reality, the so-called “the world outside and pictures in our heads”. Robert E. Park (1922) initiated one of the first research studies in mass communication in order to determine how media content influences public opinion and promotes social change. He identified the role of decision-makers in the monitored media institutions with selection prerogatives on what issues would or not become press news: “from all the events that take place and are recorded daily by correspondents, reporters, news agencies, the publisher chooses for publication certain aspects that he finds more important or more interesting; the rest is forgotten or doomed to end up in the trash. There is a huge amount of news that is being killed every day” (Park, 1922, 328).

Two more contributions are worth mentioning as predecessors of the formulation of the agenda-setting theory. One of them belongs to David Manning White who, following the research of Kurt Lewin (1943), introduced the concept of *gatekeeper* after analyzing the news filtering behavior of a chief editor. His conclusion was that the circulation of information depends on the choices of people who occupy strategic positions in the media (White, 1950). Kurt Lang and Gladys Engel Lang paved the way for the statement of the new theory by suggesting that the media constantly present events, suggesting what most individuals would think about these events, what they know about them, and how they feel about them (Weaver, 2007).

In 1968, Maxwell McCombs and Donald Shaw conducted the first systemic study of the agenda-setting hypothesis. Their study was conducted on 100 subjects in

Chapel Hill, North Carolina, and the results of the survey they underwent were corroborated with the content analysis of regional dailies such as *Time*, *New York Times*, *Newsweek* and news programs broadcast such as CBS and NBC. They identified a high level of correspondence between the rank-order of issue salience in the news coverage and the salience of those issues among the interviewees' agenda (DeFleur & Ball-Rokeach, 1989). Media can help citizens find out not only what their problems are, but also how they are ranked in terms of importance (McQuail & Windahl, 1993).

Recent ramifications of the agenda-setting theory: NAS and key words agenda

Numerous studies established firm correlations between media and public priorities (Dearing *et al.*, 1996; Iyengar *et al.*, 1982; Kiouisis & McCombs, 2004; McCombs & Shaw, 1993; Walgrave, 2006). The agenda-setting theory's core proposition is that the importance of items on the media agenda influences their salience on the public agenda. According to Vowe and Henn (2015, 26–27), several assumptions have proved their viability on the topic of agenda-setting. The first refers to media's ability of highlining several issues in order to shape audiences' agenda or priority of issues; there is a cause-and-effect relationship between the media and the public agenda; the public looks at news media for cues to know what is important (and what is not); because of restricted time and space, the mass media have to select news items and, by doing so, they do not reflect reality but rather filter and shape it; media gatekeepers play a central role in determining media agenda; different media have a different agenda-setting potential.

The Chapel Hill study (McCombs & Shaw, 1972) demonstrates what is known as the *first-level agenda-setting*, i.e., that the prominence of issues highlighted by the media could be transferred to the public's mind. The media may, under certain conditions, introduce topics of interest into the public agenda, topics and issues that thus become part of the public debate (Vu *et al.*, 2014). First level of agenda-setting involves a discrete transfer of themes from the media to individuals or groups in the form of distinct elements. By comparing the rank-ordered issues on the media agenda with the key issues of the public agenda, studies revealed a high correlation between the first level of the two agendas (McCombs, 2005).

While the first level of agenda-setting refers to the importance of topics, the second level of agenda-setting is associated with the attributes of topics on the public agenda (Fortner & Fackler, 2014; Guo & McCombs, 2011a; Lee *et al.*, 2005). Agenda-setting research advanced to its second level by determining how people think about a problem, a public figure, or an object and focuses on the attributes, characteristics, and properties that describe it and the tone of its coverage (Cheng & Chan, 2015; McCombs & Shaw, 1976; Stone & McCombs, 1981). Therefore, while first-level agenda-setting theory suggests that news media can organize *what* people

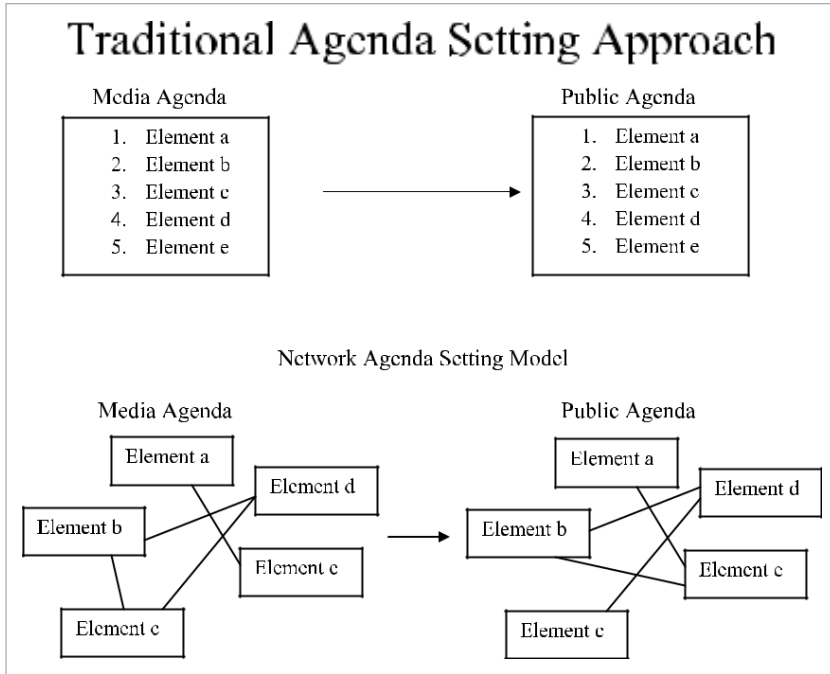
think about, the second level indicates that the media can also influence *how* they think about objects (Davie & Maher, 2006; Wanta *et al.*, 2004).

Over fifty years ago after McCombs and Shaw (1972) suggested that the salience of issues emphasized by the news media can be redirected to the public, making implicit reference to “the pictures” in people’s heads, new directions of research nuanced the understanding of this idea (Vu *et al.*, 2014). Due to the emergence of digital media platforms, the volume of news and information available exceeds the amount that any individual can consume (Guo & Vargo, 2015). In such a complex media landscape, revisiting the initial approach of the agenda-setting theory to identify discrete objects or attributes seemed a necessity. The newest branch of agenda-setting involves what is being called the “third level” of agenda-setting. Theorizing about object attributes having an agenda-setting effect, the third level or attribute agenda contains cognitive components that describes characteristics of the object as well as affective components including the tone (positive, negative, or neutral) of the media coverage (Kim *et al.*, 2017). Guo *et al.* (2012) bring up a new theoretical model called *Network Agenda-Setting Model*, referred to as the third level of agenda-setting theory. The initial theory chained in the direction of investigating the salience of networked bundles of issues or other objects of attention and their attributes, rather than the salience of discrete message elements (Cheng, 2016; Guo & McCombs, 2011a; 2011b; Guo *et al.*, 2012; Guo, 2013).

The social man operates an elaborate form of mapping reality, a complex system of attributions of meanings, simplifications, reformulations, contextualization and decontextualization, construction and deconstruction of language to form the representation of the ecosystem of human society as a whole. The public maps objects and attributes as network images, depending on the interdependence between these elements (Chen *et al.*, 2019; Guo, 2012). From this perspective, the media suggest to the public the prominence of relationships in a set of elements (Guo *et al.*, 2015). These sets of relationships between the media and public agendas are the third level of agenda-setting (Su & Hu, 2020). Therefore, this is an articulated image of the three valences of the agenda-setting starting from the substrate of the agenda transfer of the favorite topics, continuing with the establishment and introduction of the attributes of these elements and culminating with the delivery of a complex set of relationships between these elements, all part of a cumulative effect of converting the media agenda into the public agenda (Guo & Vargo, 2020; Vargo & Amazeen, 2017). In other words, the media not only manage to tell us what to think and how to think, but they also have the potential to link these objects and attributes with one another (Vargo *et al.*, 2014; Ragas & Roberts, 2009; Wang, 2016; Wanta & Alkazemi, 2017).

The initial postulate of the agenda-setting theory was that the perception of individuals operates with logical hierarchies based on various criteria of importance of the information received from the media. Numerous studies (Anderson, 1986;

Barsalou, 1999; Guo & McCombs, 2011b) have suggested that the audience is “active”, and, therefore, responsible for establishing a relationship between objects and their perceived attributes in a structured network. In other terms, this is similar to a process of reality representation involving a “cognitive map” (McCombs, 2004) of interdependent constructs (Guo & McCombs, 2011b) (see Figure 1).



Note: Elements could refer to objects, attributes, or combinations of objects and attributes

Figure 1. The Comparison of Traditional Agenda-Setting Approach and Network Agenda-Setting Model

The main focus of the NAS model is to describe the media mechanisms of building or enhancing new connections in audience’s cognitive network (Kweon *et al.*, 2019). News media build the connection and then transfer it to the audience. The more frequently two items are associated on the media agenda, the more likely they are to be perceived as interdependent on the public agenda. For example, in the current COVID-19 pandemic, the more the media amplify the association between public vaccination policy and the declining number of diseases, the more the audience may perceive the two topics as related.

The operational definitions of agendas continue to expand, thus offering scholars new research areas to examine. Semantic network analysis is used to quantify network relationships among objects and attributes found in the news coverage and public agenda (Drieger, 2013). Borrowing methods from the cognitive psychology

based on Lang's (2000) research, the NAS model measures the *associative model of memory*, while also using network analysis to present an individual's cognitive understanding of social reality as a map where various nodes are connected to one another (Guo & Vargo, 2015). Two distinct topics coming from the news media, if packaged and disseminated together, with a high recurrence, will work in interrelation, both at the time of storage in the receiver's memory and at the time of recall in a triggering context (Guo & McCombs, 2011a). The spreading activation (Anderson, 1983) is a method for searching associative networks, such as semantic networks. When a semantic token (node) is activated in semantic memory, other related tokens are pre-activated as well. As each item is activated, further activation may spread through the network, making it more likely that associated items will be retrieved from one's memory (Anderson, 1996). These pre-activated tokens activate other tokens by spreading to various neighboring nodes. By analyzing the interactions between nodes may offer a better understanding about how people perceive the world. The result is a network of interrelated "tags" that indicate the incipient node and the one that precedes (Hussein & Neuhaus, 2010). The memory activation process occurs when accessing the interaction points between nodes and tags Collins and Loftus (1975). Following the research of Quillian (1962), Corbu and Hosu (2017) proposed a new branch of the NAS model—the *key words agenda*.

Their research is based on the articulation function of the media. Coined by Elizabeth Noelle-Neumann (1974), the articulation function of the media suggests the fact that the media provide the words and phrases that people use to articulate an opinion and to express it when talking to others about specific issues. In an attempt to avoid social exclusion or marginalization, individuals will seek gratifications and rewards from others for acceptance and confirmation. Thus, through its articulation function, the media provide key words and phrases as tools that allow individuals to form the impressions regarding the dominant opinions, regarding the opinions that might become predominant and about those opinions that might end up being expressed publicly. People will borrow from the media discourse terms, even syntax, and associated meanings to construct an articulate, relevant discourse and somehow axiomatic because it has been previously validated by the media through its channels. Therefore, Corbu and Hosu (2017) argue that the NAS model operates through key words associations bundled together with the topics in news media coverage. Acting as memory tags, the key words facilitate the transfer from the media to the public agenda.

In this context, this study seeks to explore the convergence between the media and the public agendas in terms of the main key words associated with COVID-19–related topics. The following first research question is provided to investigate the main key words used by various news media outlets in the current media landscape:

Research question 1: Which are the main key words used by TV and online media to cover COVID-19–related topics in a peak-event vs. a routine period?

In order to achieve the main goal of this paper, two extensions of the basic agenda-setting effects will be discussed further—the concepts of *agenda-melding* and the *need for orientation* (McCombs, 1977; Weaver 1977; 1980). In an attempt to avoid social isolation, individuals tend to join other people from various groups with whom they share cognitive, attitudinal, and behavioral similarities (Noelle-Neumann, 1974). Affiliation to such groups is based on common systems of attitudes, beliefs, values, and opinions, the very mix that underlies the formation of the agenda – the individual’s agenda merges with the group’s agenda, dissolves in its amorphous mass, thus inducing group membership through the set of elements at the intersection of all members. This phenomenon is known as *agenda-melding* (McWhorter, 2020; Ragas & Roberts, 2009; Shaw *et al.*, 1999). The concept refers to that unequipped construction people have invented to describe the intimate, often unconscious, process by which they borrow issues from a variety of agendas to find or create the personal communities in which they choose to live; how they combine the civic agendas of the media and the agendas of their evaluated reference communities with their own opinions and experience to create a satisfying “picture” of the world (McCombs *et al.*, 2014).

The concept of NFO emerged as an addendum closely related to the notion of agenda-melding. Part of the so-called *psychology of agenda-setting*, Weaver (1977; 1980) and Shaw and McCombs (1977) grounded in the concept which remains the most studied individual-level factor for attributing differences in the strength of agenda-setting effects (Valenzuela, 2014). The NFO predicts information-seeking behavior, acting as a moderator of agenda-setting effects to explain people’s use of mass media in their desire to understand new environments or situations (Camaj, 2019). The core assumption of NFO theory hypothesis is that the individuals feel psychologically uncomfortable in new settings until they achieve some degree of orientation to their new surroundings. To bypass such cognitive dissonance, active audiences search media for guidance (McCombs, 2014). The agenda-setting does not take place to the same extent and following the same path for every individual. Two concepts define NFO: *relevance* and *uncertainty* (Fortner & Fackler, 2014). The priority condition for high level of NFO is relevance described as the measure of the individual’s interest in a topic of public discussion, in line with the projected impact of the issue on oneself. Numerous public affairs topics are not interesting for many people; therefore, they are referred to as topics with low NFO (Matthes, 2005; Severin & Tankard, 2014).

The relevance of a topic or issue to an individual springs from many sources and is deeply attached to the individual’s personality imprint and historical social background. Research of Evatt and Ghanem (2011) revealed three underlying dimensions in this respect. The first is *social relevance* measured with scales varying from relevant/ important to irrelevant/ unimportant; irrelevant/relevant and unimportant/ important; the second is *personal relevance*—e.g., matters to me/ of concern

to me or does not matter to me/ of no concern to me; while the third is *emotional relevance*—e.g., boring/ unexciting versus interesting/ exciting.

The distinctions between social, personal, and emotional relevance for every individual reveal various levels of NFO and specific media topics that may be imported to the agenda. On the other hand, *uncertainty* refers to how much information individuals so already know on the topics under discussion. If uncertainty is high, people tend to seek information in order to deliberate on relevant issues. In such conditions, the higher the NFO is (high relevance and high uncertainty concerning the subject), the more susceptible the individuals are to look at the media in search for answers. In turn, this leads to high agenda-setting effects (Camaj, 2014; Chernov, 2011).

In this context, this paper aims at offering answers to the following two research questions:

Research question 2: Which implicit associations do people make with reference to the COVID-19 pandemic? (i.e., which key words people implicitly associate with COVID-19—related issues)

Research question 3: How similar are the media and the public agenda on topics related to the COVID-19 pandemic? (i.e., how people describe issues related to the COVID-19 pandemic in general)

Methodology

To answer the research questions, we conducted a two-step analysis. As a first step, to reveal the main key words used by television and online media to cover the COVID-19 pandemic, we employed quantitative content analysis on television and online news stories on COVID-19—related topics released during (a) March 18–31, 2020, a peak-event period marking the beginning of the COVID-19 pandemic and the nationwide lockdown in Romania (N=1511) and (b) January 18–31, 2021, a routine period when no exceptional events were taking place in Romania (N=834). The content analysis was undertaken on the news stories broadcasted on three prime-time television newscasts from Romania (two commercial and one public)—PRO TV, Antena 1, and TVR 1¹—and on the news stories published by two Romanian online newspapers (one broadsheet and one tabloid)—*adevarul.ro* and *libertatea.ro*². The unit of analysis was the news story and for each analyzed news story all the key words associated with the pandemic were coded separately. Intercoder

1 PRO TV and Antena 1 are the first two television outlets in terms of audience reach according to www.paginademedias.ro for March–April 2020 and the national public television (TVR 1).

2 These online news outlets are listed as the first two news outlets in terms of unique users according to BRAT statistics for March and April 2020; www.brat.ro/sati for March–April 2020.

reliability was not measured for the variables included in this study, as the key words list was not limited to a number of words, and further decision of eliminating no-specific words was made. We report here Krippendorff's alpha measured for other key variables in the study; it ranged from .626 to .991 for the online coding and from .786 to .960 for TV.

During the peak-event period (March 18–31, 2020), in the analyzed television news stories there were references to 1217 different key words, while in the analyzed online news stories there were references to 595 different key words. On the other hand, during the routine period (January 18–31, 2021), in the analyzed television news stories there were references to 281 different key words, while in the analyzed online news stories there were references to 597 different key words. Out of these, we selected the top 10 most frequently used key words, by type of media outlet (television or online) and by period (peak-event or routine).

As a second step, to reveal the implicit associations people make with reference to the COVID-19 pandemic (i.e., the key words people implicitly associate with COVID-19–related issues) and to determine how people describe issues related to the COVID-19 pandemic in general (i.e., if and how the public agenda follows the trends in the media), we conducted 21 semi-structured in-depth interviews with young, educated Romanians. The interviews were conducted via Zoom, between February 22–March 5, 2021. The average duration of each interview was 30 minutes. This second step is linked to the third-level or network agenda-setting ramification (attribute agenda-setting) and within the interview we asked the participants (1) to list the most relevant key words that come into their minds when they think about COVID-19 topics and (2) to describe the way they would tell a friend about the pandemic; other similar methodological approaches are often referred to as mind-mapping techniques (Guo *et al.*, 2012).

Results and discussion

Main findings show that in March 2020 the most frequently mentioned key words in the analyzed news stories are those related to the virus itself, to the medical conditions (e.g., hospital, patient), and to the measures taken to limit its spread (e.g., tests, isolation/ self-isolation, quarantine, mask-wearing), while in the analyzed period from January 2021 the most frequently mentioned key words are those related to vaccines, vaccination, and immunization (for details, see the Appendix). These results confirm that the way media portray certain topics is context dependent (Vu *et al.*, 2014). While at the very beginning of the pandemic in Romania (that coincided with the period surrounding the national lockdown in Romania and in many other countries) the discourse in the media referred more to the medical conditions related to the virus, in January 2021 (when no very important event was taking place) the main key words used in the analyzed media outlets to refer to the

pandemic-related topics were those related to vaccination and immunization. Nevertheless, we can notice that those key words related to the main measures taken to limit the spread of the virus and reduce the overall negative outcomes of the pandemic (such as isolation, mask-wearing, quarantine) are present in both analyzed periods, letting us assume that media acted in a responsible way, possibly orienting people to better understanding the importance of certain measures that might help reduce the negative effects of the current pandemic.

In what regards the public agenda, results show that people tend to implicitly associate the COVID-19 pandemic with negative issues (in line with the way the media portrayed these topics). These results also confirm prior studies on the NAS model, showing that people tend to borrow not only topics from the media, but also their attributes (Vargo *et al.*, 2014; Ragas & Roberts, 2009; Wang, 2016; Wanta & Alkazemi, 2017). With only one exception, all the interviewees mentioned firstly the negatively valenced key words they associate the COVID-19 pandemic with. Specifically, when asked to think about the first five key words that come to their minds when thinking about the pandemic, most people mentioned words such as: “fear”, “uncertainty”, “distrust”, “panic”, “depression”, “sadness”, “loneliness”, “frustration”, “death”, “trauma”, “anxiety”, or “terror”. Besides these, other frequently mentioned key words were related to measures taken to limit the spread of the virus such as: “vaccine”, “lockdown”, “isolation”, “social distancing”, “masks”, “disinfectant”, “restrictions”, “hand-washing”. Other frequently mentioned key words were those related to “polluted information” environment; people mentioned “disinformation”, “fake news”, “propaganda”, “conspiracy”, “5G”, “microchips”, or “anti-vaxxers”. Others also mentioned the changes brought by the pandemic in terms of the work environment and thus described the pandemic in terms of “work from home” or “online school”. Only one of the interviewees mentioned the positive aspects of the pandemic first, referring to them in terms of “free time”, “time for family”, “time for travelling”.

Unsurprisingly, these results provide ground to believe that the COVID-19 pandemic is perceived in very negative terms, probably due to personal experience with the disease, but also with reference to how the media in general portrayed COVID-19-related topics. Even though there is no explicit connection between the analyzed media and public agenda (i.e., one cannot say for sure if certain media outlets specifically influenced people), we might assume that people got their information related to the pandemic from the media, at least at the beginning of the pandemic, when they did not know very much about such topics and their direct experience with the virus and the disease was limited; therefore, we can identify a sort of pattern in the two types of agendas (Camaj, 2014; Chernov, 2011). If we look at the media agenda, we can see that the most prominent key words were those related to the virus, to medical conditions, to measures taken to limit the spread of the virus, and also to vaccination and immunization. Such key words might be (to a certain extent) responsible for making people think about the pandemic in nega-

tive terms. At the same time, people tend to evaluate the way media portrayed the pandemic by pointing at various disorders related to the media ecosystem, namely disinformation, conspiracy theories, fake news, and propaganda.

Furthermore, results show that, when asked to describe issues related to the COVID-19 pandemic in general, people referred mainly to the measures and restrictions taken by the authorities in order to limit the spread of the virus, specifically mask wearing, using disinfectants, avoiding crowded places, and practicing social distance. All of the interviewees stressed the importance of respecting the rules imposed by the authorities and the importance of vaccines as a “tool” to come back to “normal”.

Despite these more general answers offered by the participants, results show that half of them perceived that the issues related to the information sources are among the most relevant ones when trying to describe the current pandemic. People referred to the importance of using trustworthy, official sources of information to keep up-to-date with the pandemic. They pointed to the fact that it is important “to get to know information only from official sources, because it is very easy to come across fake news on social media. Even though you do not follow a certain page, you can come across fake content because a friend commented to it, or liked that post and it then comes to your feed as well.” (P01); “to get information from verified sources, i.e., they do not trust each and every source; to check various websites and reliable news bulletins even from abroad.” (P15); “to get to know about the virus seriously, meaning by following real topics from news articles in which doctors are cited or in which research studies are present.” (P17). Another frequently mentioned topic was related to the dangers associated with various forms of information pollution within the media ecosystem (disinformation, fake news, conspiracy or toxic narratives about the virus and the vaccines). In this sense, people pointed that “I would explain them about the media news articles, so that they do not believe all the news from all the sites only because they have a lot of visitors. I would also say that it is important to check many sources when coming over information about this virus.” (P10); “I would start describing the pandemic by referring to the origins of the virus because many people developed and believed in many conspiracy theories about the emergence of the virus, blaming Bill Gates or thinking it was released from a lab.” (P13); “If they want to have fun, I suggest reading these alarmist issues, these topics related to DNA change or microchip implantation with the vaccine.” (P17); “I would say to avoid watching TV because there is much disinformation.” (P21). At the same time, some people referred to the high negativity and alarmist coverage within the current media ecosystem: “I would stress the idea that one should not be worried about everything because the news is very aggressive.” (P12); “I would suggest that they follow the news only if they do not have certain problems or emotional instability because the news can influence them in a negative way. They can see or hear something and they can further think the same might happen to them.” (P15).

Other worth mentioning topics discussed by the participants in relation to the COVID-19 pandemic are those related to the macro-level changes. Accordingly, people say that the pandemic “has changed the course of life and activities each of us have had before.” (P16). These changes are often associated with high levels of uncertainty. People report being frightened about the whole situation with the pandemic, both on a personal and societal level: “To be terrified for the safety of your life when you do not know what happens and, even more important, to be uncertain about what is happening tomorrow, about what is coming next, about what the authorities are deciding, about how the whole situation is growing.” (P16).

Such results let us assume that the media played a role in influencing people’s agenda. Specifically with regards to a very new topic and due to the high NFO (high relevance and high uncertainty), people tended to follow the media in keeping up-to-date with the pandemic (Fortner & Fackler, 2014). As a result, they borrowed certain attributes that media themselves used in order to refer to COVID-19–related topics. For example, when asked to describe in their own words the pandemic situation to a friend, people tended to use more or less the same key words the media used (focusing, to a large extent, on the measures taken to stop the spread of the virus). Furthermore, a possible outcome of such media coverage is reflected on people’s agenda (i.e., people are aware of the main measures taken in order to limit the spread of the virus; this responsible behavior might be attributed, at least to a certain extent, to the way some media outlets covered the pandemic-related issues). Even though it is very hard to determine which media played the most relevant role in guiding people through the topics related to the pandemic, it is certain that media do have a role in orienting people in the “information jungle”, thus influencing their opinions, attitudes, and related behaviors.

Conclusion

To sum up, this research offers empirical ground showing that media still influence public agenda especially in times of crisis, when people’s need for orientation is very high. Findings from this study offer the premises to believe that people tend to “borrow” the main topics of discussion from the media. Specifically, when analyzing the main key words the media and the public associate with the COVID-19 pandemic, the convergence is visible in the sense that the most prominent key words used in the media coverage of the pandemic are also found on people’s agenda. References to the measures taken to limit the spread of the virus, as well as to vaccination and immunization are present on both agendas. Such results are relevant because they might offer some insights into the emergence of development of various public attitudes and behaviors. By analyzing the dynamics of the media and the public agenda in crisis periods, communication scholars might offer evidence-based explanations about the dynamics of various public attitudes, includ-

ing trust in institutions and people involved in managing the pandemic, different levels of compliance with the measures taken to limit the spread of the virus, and even attitudes towards vaccination as a solution to achieve herd immunity and put an end to the current sanitary crisis.

There are some limitations of this study. First, results are bound to the socio-cultural context and implications are, therefore, limited. In this study, we have analyzed only certain legacy media outlets, thus letting apart all the other information sources that might play a role in setting people's agenda. Second, we cannot say for sure which media functioned as agenda-setter at a certain time. This happens mainly because nowadays there is an overabundance of information (i.e., people take their information from many sources at the same time). Third, the interviews were conducted only with young and educated Romanians and, thus, the conclusions are limited to this sample and cannot be generalized to the whole population of Romania. It is highly probable to be significant differences in people's agendas according to different age groups and education levels. Nevertheless, despite limitations, this research advances an accurate picture regarding both the media and the public agenda with reference to the COVID-19 pandemic, being the first attempt of this type in Romania so far. In conclusion, this paper offers fertile empirical evidence for further studies investigating the role of the media in driving people's opinions, attitudes, and behaviors in times of crisis.

References

1. Anderson, J. R. (1983). A Spreading Activation Theory of Memory. *Journal of Verbal Learning and Verbal Behavior*, 22(3), 261–295. [https://doi.org/10.1016/S0022-5371\(83\)90201-3](https://doi.org/10.1016/S0022-5371(83)90201-3)
2. Anderson, J. R. (1996). *The architecture of cognition*. Lawrence Erlbaum Assos. Publ.
3. Barsalou, L. W. (1999). Perceptual symbol systems. *Behavioral and Brain Sciences*, 22(4), 577–660. <https://doi.org/10.1017/S0140525X99002149>
4. Baudrillard, J. (1994). *Simulacra and simulation*. University of Michigan Press.
5. Camaj, L. (2014). Need for Orientation, Selective Exposure, and Attribute Agenda-Setting Effects. *Mass Communication and Society*, 17(5), 689–712. <https://doi.org/10.1080/15205436.2013.835424>
6. Camaj, L. (2019). Motivational Theories of Agenda-Setting Effects: An Information Selection and Processing Model of Attribute Agenda-Setting. *International Journal of Public Opinion Research*, 31(3), 441–462. <https://doi.org/10.1093/ijpor/edy016>
7. Chakraborty, A., & Bose, S. (2020). Around the world in 60 days: an exploratory study of impact of COVID-19 on online global news sentiment. *Journal of Computational Social Science*, 3(2), 367–400. <https://doi.org/10.1007/s42001-020-00088-3>
8. Chen, L., Shi, J., Guo, Y., Wang, P., & Li, Y. (2019). Agenda-setting on traditional vs social media: An analysis of haze-related content grounded in the extended parallel process model. *Internet Research*, 29(4), 688–703. <https://doi.org/10.1108/IntR-08-2017-0315>

9. Cheng, Y. (2016). The third-level agenda-setting study: An examination of media, implicit, and explicit public agendas in China. *Asian Journal of Communication*, 26(4), 319–332. <https://doi.org/10.1080/01292986.2015.1130159>
10. Cheng, Y., & Chan, C. (2015). The Third Level of Agenda Setting in Contemporary China: Tracking Descriptions of Moral and National Education (MNE) in Media Coverage and People's Minds. *International Journal of Communication*, 9(18), 1090–1107.
11. Chernov, G., Valenzuela, S., & McCombs, M. (2011). An Experimental Comparison of Two Perspectives on the Concept of Need for Orientation in Agenda-Setting Theory. *Journalism & Mass Communication Quarterly*, 88(1), 142–155. <https://doi.org/10.1177/107769901108800108>
12. Cohen, B. C. (1963). *Press and foreign policy*. Princeton University Press.
13. Corbu, N., & Hosu, O. (2017). The Key Words Agenda: New Avenues for Agenda Setting Research. *Romanian Journal of Communication and Public Relations*, 19(3), 7. <https://doi.org/10.21018/rjcp.2017.3.241>
14. Davie, W. R., & Maher, T. M. Review and Criticism: Research Pioneer Tribute—Maxwell McCombs: Agenda-Setting Explorer. *Journal of Broadcasting & Electronic Media* 50(2), 358–364. https://doi.org/10.1207/s15506878jobem5002_13
15. Dearing, J. W., Rogers, E. M., & Rogers, E. (1996). *Agenda-setting* (vol. 6). Sage.
16. DeFleur, M. L., & Ball-Rokeach, S. (1989). *Theories of mass communication* (5th ed). Longman.
17. Drieger, P. (2013). Semantic Network Analysis as a Method for Visual Text Analytics. *Procedia – Social and Behavioral Sciences*, 79, 4–17. <https://doi.org/10.1016/j.sbspro.2013.05.053>
18. Evatt, D., & Ghanem, S. (2001). *Building a scale to measure salience*. [Paper presentation]. World Association for Public Opinion Research, Rome, Italy.
19. Fortner, R. S., & Fackler, M. (Eds.). (2014). *The handbook of media and mass communication theory*. Wiley.
20. Gamson, W. A., Croteau, D., Hoynes, W., & Sasson, T. (1992). Media images and the social construction of reality. *Annual review of sociology*, 18(1), 373–393. <https://doi.org/10.1146/annurev.so.18.080192.002105>
21. Gjylbegaj, D. (2021). Agenda Setting and Covid-19 in the UAE. *European Journal of Molecular & Clinical Medicine*, 7(11), 4462–4468.
22. Guo, L. (2012). The Application of Social Network Analysis in Agenda Setting Research: A Methodological Exploration. *Journal of Broadcasting & Electronic Media*, 56(4), 616–631. <https://doi.org/10.1080/08838151.2012.732148>
23. Guo, L. 2013. Toward the Third Level of Agenda Setting Theory: A Network Agenda Setting Model. In Johnson, T. (Ed.), *Agenda Setting in a 2.0 World: New Agendas in Communication* (pp. 112–133). Routledge.
24. Guo, L., & McCombs, M. (2011a, May 26–30). *Network agenda setting: A third level of media effects*. [Paper presentation]. Annual meeting of the International Communication Association, Boston, MA, USA.

25. Guo, L., & McCombs, M. (2011b, August 10–13). *Toward the third level of Agenda Setting theory: A Network Agenda Setting Model*. [Paper presentation]. AEJMC, St. Louis, MO, USA.
26. Guo, L., & McCombs, M. (Eds.) (2015). *The power of information networks: New directions for agenda setting*. Routledge.
27. Guo, L., & Vargo, C. (2015). The Power of Message Networks: A Big-Data Analysis of the Network Agenda Setting Model and Issue Ownership. *Mass Communication and Society*, 18(5), 557–576. <https://doi.org/10.1080/15205436.2015.1045300>
28. Guo, L., & Vargo, C. (2020). “Fake News” and Emerging Online Media Ecosystem: An Integrated Intermedia Agenda-Setting Analysis of the 2016 U.S. Presidential Election. *Communication Research*, 47(2), 178–200. <https://doi.org/10.1177/0093650218777177>
29. Guo, L., Chen, Y.-N. K., Vu, H., Wang, Q., Aksamit, R., Guzek, D., Jachimowski, M., & McCombs, M. (2015). Coverage of the Iraq War in the United States, Mainland China, Taiwan and Poland: A transnational network agenda-setting study. *Journalism Studies*, 16(3), 343–362. <https://doi.org/10.1080/1461670X.2014.885198>
30. Guo, L., Vu, H. T., & McCombs, M. (2012). An expanded perspective on agenda-setting effects: Exploring the third level of agenda setting. *Revista de comunicaci3n*, (11), 51–68.
31. Hussein, T., & Neuhaus, S. (2010). Explanation of spreading activation based recommendations. *Proceedings of the 1st International Workshop on Semantic Models for Adaptive Interactive Systems - SEMAIS '10*, 24–28. <https://doi.org/10.1145/2002375.2002381>
32. Iyengar, S., Peters, M. D., & Kinder, D. R. (1982). Experimental Demonstrations of the “Not-So-Minimal” Consequences of Television News Programs. *The American Political Science Review*, 76(4), 848. <https://doi.org/10.2307/1962976>
33. Kim, Y., Kim, Y., & Zhou, S. (2017). Theoretical and methodological trends of agenda-setting theory: A thematic analysis of the last four decades of research. *The Agenda Setting Journal*, 1(1), 5–22. <https://doi.org/10.1075/asj.1.1.03kim>
34. Kioussis, S., & McCombs, M. (2004). Agenda-Setting Effects and Attitude Strength: Political Figures during the 1996 Presidential Election. *Communication Research*, 31(1), 36–57. <https://doi.org/10.1177/0093650203260205>
35. Krupenkin, M., Zhu, K., Walker, D., & Rothschild, D. M. (2020). If a Tree Falls in the Forest: COVID-19, Media Choices, and Presidential Agenda Setting. *Media Choices, and Presidential Agenda Setting*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3697069.
36. Kweon, S.-H., Go, T., Kang, B., Cha, M.-K., Kim, S.-J., & Kweon, H.-J. (2019). Study on Agenda-Setting Structure between SNS and News: Focusing on Application of Network Agenda-Setting. *International Journal of Contents*, 15(1), 10–24. <https://doi.org/10.5392/IJOC.2019.15.1.010>
37. Lang, A. (2000). The Limited Capacity Model of Mediated Message Processing. *Journal of Communication*, 50(1), 46–70. <https://doi.org/10.1111/j.1460-2466.2000.tb02833.x>
38. Lee, B., Lancendorfer, K. M., & Lee, K. J. (2005). Agenda-setting and the internet: The intermedia influence of internet bulletin boards on newspaper coverage of the 2000 general election in South Korea. *Asian Journal of Communication*, 15(1), 57–71. <https://doi.org/10.1080/0129298042000329793>

39. Lewin, K. (1943): Forces behind food habits and methods of change. In *The Problem of Changing Food Habits: Report of the Committee on Food Habits 1941-1943*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/9566>
40. Lippmann, W. (1922). *Public opinion*. Harcourt, Brace.
41. Loftus, E. F. (2007). Elizabeth F. Loftus. In G. Lindzey & W. M. Runyan (Eds.), *A history of psychology in autobiography*, vol. IX (pp. 199–227). American Psychological Association. <https://doi.org/10.1037/11571-006>
42. Matthes, J. (2005). The Need for Orientation Towards News Media: Revising and Validating a Classic Concept. *International Journal of Public Opinion Research*, 18(4), 422–444. <https://doi.org/10.1093/ijpor/edh118>
43. Matthes, J. (2008). Need for orientation as a predictor of agenda-setting effects: Causal evidence from a two-wave panel study. *International Journal of Public Opinion Research*, 20(4), 440–453. <https://doi.org/10.1093/ijpor/edn042>
44. McCombs, M. (1977). Agenda setting function of mass media. *Public Relations Review*, 3(4), 89–95. [https://doi.org/10.1016/S0363-8111\(77\)80008-8](https://doi.org/10.1016/S0363-8111(77)80008-8)
45. McCombs, M. (2005). A Look at Agenda-setting: Past, present and future. *Journalism Studies*, 6(4), 543–557. <https://doi.org/10.1080/14616700500250438>
46. McCombs, M. E. (2014). *Setting the agenda: The mass media and public opinion* (Second edition). Polity.
47. McCombs, M. E., & Shaw, D. L. (1972). The Agenda-Setting Function of Mass Media. *The Public Opinion Quarterly*, 36(2), 176–187.
48. McCombs, M. E., & Shaw, D. L. (1976). Structuring the “Unseen Environment.” *Journal of Communication*, 26(2), 18–22. <https://doi.org/10.1111/j.1460-2466.1976.tb01374.x>
49. McCombs, M. E., & Shaw, D. L. (1993). The Evolution of Agenda-Setting Research: Twenty-Five Years in the Marketplace of Ideas. *Journal of Communication*, 43(2), 58–67. <https://doi.org/10.1111/j.1460-2466.1993.tb01262.x>
50. McCombs, M. E., Shaw, D. L., & Weaver, D. H. (2014). New Directions in Agenda-Setting Theory and Research. *Mass Communication and Society*, 17(6), 781–802. <https://doi.org/10.1080/15205436.2014.964871>
51. McCombs, M., & Valenzuela, S. (2014). Agenda-Setting Theory: The Frontier Research Questions. In K. Kenski & K. H. Jamieson (Eds.), *The Oxford Handbook of Political Communication*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199793471.013.48>
52. McCombs, M., & Weaver, D. (1973, April 25–28). *Voters’ Need for Orientation and Use of Mass Communication*. [Paper presented]. Annual Meeting of the International Communication Assn, Montreal, QC, Canada.
53. McQuail, D., & Windahl, S. (1993). *Communication models for the study of mass communications* (2nd ed.). Longman.
54. McWhorter, C. (2020). The role of agenda melding in measuring news media literacy. *Journal of Media Literacy Education*, 12(1), 145–158. <https://doi.org/10.23860/JMLE-2020-12-1-11>

55. Medina, L. M., Rodriguez, J. R., & Sarmiento, P. J. D. (2021). Shaping public opinion through the lens of agenda setting in rolling out COVID-19 vaccination program. *Journal of Public Health (Oxf.)* 43(2), e389–e390. <https://doi.org/10.1093/pubmed/fdab100>
56. Noelle-Neumann, E. (1974). The Spiral of Silence a Theory of Public Opinion. *Journal of Communication*, 24(2), 43–51. <https://doi.org/10.1111/j.1460-2466.1974.tb00367.x>
57. Quillian, M. R. (1962). A Revised Design for an Understanding Machine. *Mechanical translation*. 7(1),17–29.
58. Ragas, M. W., & Roberts, M. S. (2009). Agenda Setting and Agenda Melding in an Age of Horizontal and Vertical Media: A New Theoretical Lens for Virtual Brand Communities. *Journalism & Mass Communication Quarterly*, 86(1), 45–64. <https://doi.org/10.1177/107769900908600104>
59. Romania Insider. (2018). Report: Most Romanian households have TV services. <https://www.romania-insider.com/report-romanian-households-tv>.
60. Romania Insider. (2021). Internet penetration and usage rates in Romania up 2-3pp in 2020. <https://www.romania-insider.com/internet-penetration-usage-romania-2020>.
61. Rössler, P., Hoffner, C. A., & Zoonen, L. (Eds.). (2017). *The International Encyclopedia of Media Effects* (1st ed.). Wiley. <https://doi.org/10.1002/9781118783764>
62. Severin, W., & Tankard, J. W. (2014). *Communication theories: Origins, methods and uses in mass media* (5. ed., new int. ed.). Pearson Education.
63. Shaw, D. L., McCombs, M., Weaver, D. H., & Hamm, B. J. (1999). Individuals, Groups, and Agenda Melding: A Theory of Social Dissonance. *International Journal of Public Opinion Research*, 11(1), 2–24. <https://doi.org/10.1093/ijpor/11.1.2>
64. Shaw, Donald Lewis, & McCombs, M. E. (1977). *The emergence of American political issues: The agenda-setting function of the press*. West Pub. Co.
65. Stone, G. C., & McCombs, M. E. (1981). Tracing the Time Lag in Agenda-Setting. *Journalism Quarterly*, 58(1), 51–55. <https://doi.org/10.1177/107769908105800108>
66. Su, Y., & Hu, J. (2020). A territorial dispute or an agenda war? A cross-national investigation of the network agenda-setting (NAS) model. *Journal of Information Technology & Politics*, 17(4), 357–375. <https://doi.org/10.1080/19331681.2020.1756553>
67. Su, Y., Hu, J., & Lee, D. K. L. (2020). Delineating the Transnational Network Agenda-Setting Model of Mainstream Newspapers and Twitter: A Machine-Learning Approach. *Journalism Studies*, 21(15), 2113–2134. <https://doi.org/10.1080/1461670X.2020.1812421>
68. Vargo, C. J. (2018). Fifty years of agenda-setting research: New directions and challenges for the theory. *The Agenda Setting Journal*, 2(2), 105–123. <https://doi.org/10.1075/asj.18023.var>
69. Vargo, C. J., Guo, L., & Amazeen, M. A. (2018). The agenda-setting power of fake news: A big data analysis of the online media landscape from 2014 to 2016. *New Media & Society*, 20(5), 2028–2049. <https://doi.org/10.1177/1461444817712086>
70. Vargo, C. J., Guo, L., McCombs, M., & Shaw, D. L. (2014). Network Issue Agendas on Twitter During the 2012 U.S. Presidential Election: Network Issue Agendas on Twitter. *Journal of Communication*, 64(2), 296–316. <https://doi.org/10.1111/jcom.12089>
71. Vowe, G., & Henn, P. (Eds.). (2016). *Political communication in the online world: Theoretical approaches and research designs*. Routledge.

72. Vu, H. T., Guo, L., & McCombs, M. E. (2014). Exploring “the World Outside and the Pictures in Our Heads”: A Network Agenda-Setting Study. *Journalism & Mass Communication Quarterly*, 91(4), 669–686. <https://doi.org/10.1177/1077699014550090>
73. Walgrave, S., & Van Aelst, P. (2006). The Contingency of the Mass Media’s Political Agenda Setting Power: Toward a Preliminary Theory. *Journal of Communication*, 56(1), 88–109. <https://doi.org/10.1111/j.1460-2466.2006.00005.x>
74. Wang, Q. (2016). A comparative case study: Network agenda setting in crisis and non-crisis news. *Global Media and China*, 1(3), 208–233. <https://doi.org/10.1177/2059436416668870>
75. Wanta, W., Golan, G., & Lee, C. (2004). Agenda Setting and International News: Media Influence on Public Perceptions of Foreign Nations. *Journalism & Mass Communication Quarterly*, 81(2), 364–377. <https://doi.org/10.1177/107769900408100209>
76. Weatherly, U. G. (1922). The Immigrant Press and Its Control. Robert E. Park. *American Journal of Sociology*, 27(6), 807–809. <https://doi.org/10.1086/213420>
77. Weaver, D. H. (1977). Political issues and voters’ need for orientation. In Shaw, D. L. & McCombs, M. E. (Eds.), *The Emergence of American Political Issues: The Agenda-Setting Function of the Press* (pp. 107–120). West Publishing.
78. Weaver, D. H. (1980). Audience Need for Orientation and Media Effects. *Communication Research*, 7(3), 361–373. <https://doi.org/10.1177/009365028000700305>
79. Weaver, D. H. (2007). Thoughts on Agenda Setting, Framing, and Priming. *Journal of Communication*, 57(1), 142–147. <https://doi.org/10.1111/j.1460-2466.2006.00333.x>
80. White, D. M. (1950). The “Gate Keeper”: A Case Study in the Selection of News. *Journalism Quarterly*, 27(4), 383–390. <https://doi.org/10.1177/107769905002700403>

Appendix

Table 1. Top 10 most frequently used key words in the television news stories from 18–31 March 2020 (peak-event period)

Key word	Frequency
coronavirus	256
doctor/ s	197
covid/ covid-19	173
isolation	162
measure/ measures	156
hospital	148
patient/ patients	131
infection	130
quarantine	125
pandemic	122

Table 2. Top 10 most frequently used key words in the online news stories from 18–31 March 2020 (peak-event period)

Key word	Frequency
coronavirus	407
covid/ covid-19	230
pandemic	161
virus/ viruses	153
quarantine	138
infected	118
isolation	115
epidemic	78
infection	62
auto-isolation	61

Table 3. Top 10 most frequently used key words in the television news stories from 18–31 January 2021 (routine period)

Key word	Frequency
vaccine/ vaccination	248
anti-covid	200
covid	88
pandemic	84
immunize/ immunization	78
test	64
virus/ viruses	59
infection	54
mask/ masks	52
hospital	52

Table 4. Top 10 most frequently used key words in the online news stories from 18–31 January 2021 (routine period)

Key word	Frequency
vaccine/ vaccination	225
covid/ covid-19	187
infection	173
pandemic	139
coronavirus	134
test	102
case/ cases	87
virus/ viruses	83
quarantine	68
isolation	62