



Pandemic and Infodemic – Which One Is More Dangerous?

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Abstract. This article examines the relationship between social sustainability and the fake news phenomenon in the light of the COVID-19 epidemic. Using existing statistical data and relevant media-related concepts, it compares the harmful impacts of the pandemic and the accompanying infodemic. The problem can be placed among the components of hybrid warfare. Examples, statistics, and research on COVID-19-related fake news are discussed with a focus on efforts for building resilience against fake news.

Keywords: pandemic, infodemic, fake news, social sustainability, COVID-19

1. Introduction

The COVID-19 epidemic, which started at the end of 2019, had a significant impact on the media in several aspects. The sense of emergency and threat has led the public to increased media consumption, the signs of which were already visible in international research on the subject in early 2020. Data from the Reuters Institute's 2020 survey showed that subscriptions have increased in the United States, meaning that people were willing to pay for quality news, according to the two-day MASCOM (Media and Communication Online Conference) online conference on 30–31 October 2020. The focus was on the impact of the global pandemic on communication, in which Prof. John V. Pavlik (Rutgers State University of New Jersey, USA) gave a plenary lecture on the future of journalism (Pavlik, 2022). This was supported by a joint study by the Digital Audience Measurement Council (DKT) and Gemius, which measured an increase of almost 90 percent in page views for news sites in Hungary (Media1, 2020a). In addition, according to data from Nielsen Public Audience Survey, the per capita time spent watching TV in Hungary was 4 hours 56 minutes on week 10 but increased to 5 hours 48 minutes per day on week 13. This means that on average Hungarians spent nearly 1 hour more watching TV than before the state of emergency was declared (Media1, 2020b). The intense

interest in the virus and the heightened news consumption made it clear in no time at all that news about the epidemic had enormous value in a resource-poor environment of the attention economy. According to Eurostat data for 2022, nearly 9 out of 10 EU citizens aged 16–74 used the Internet at least once in 3 months in 2021. In that period, 87% of the Hungarian population read online news sites. This puts Hungary in the lead. The biggest problem, however, was that the first to react to this were also sites not named by the Cybercrime Department of the National Bureau of Investigation of the Police Service of the Office of the Emergency Police for various reasons (e.g. political influence, disinformation, maximizing revenue from online advertising) but that in any case are interested in attracting the attention of the largest possible audience, even at the cost of manipulating public opinion with distorted, incorrect, or outright falsified information. The police found that the dozens of “fake portals” and their associated Facebook pages were part of the same network, where articles were shared on topics of current public interest but based on untrue allegations.

The primary aim of this paper is to explore the fake news phenomenon that has been unfolding in relation to COVID-19. What are the dangers of this process in terms of social sustainability and the disintegration of the social fabric? A holistic approach to the topic is necessary, and my research area, the communication of warfare, especially fake news as one of its possible tools, is one part of this approach. There have been numerous examples of misuse of COVID-19-related fake news in our country, and there are also a number of international precedents that suggest that there have been serious “fake news factories” in the interpretation of COVID-19. In my study, I investigate the possible motivations behind the intentional dissemination of fake news, the possible side effects of this phenomenon, and the possibilities and tools for protection and resilience.

The COVID-19 virus infection is a crisis that cannot be addressed without thinking on a global scale. It is a global epidemic that should have been dealt with by different countries working together and joining forces, not competing against each other (EU Council, 2022). The high interdependence that existed between different countries, continents or even alliances of countries, sometimes led to a looser, sometimes to a closer level of cooperation. There was no single solution. In the case of the European Union, each country initially tried to manage its own supply and production chains, i.e. the economy or healthcare issues. It was only later that cooperation between countries and joint actions in a few areas were organized. (At the time of writing, the Russian–Ukrainian conflict is also a recent example of this, with the same effects.) The coronavirus epidemic is not just a health epidemic, it is a crisis of raw materials and commodities that affects all countries globally and all people interdependently, so an adequate response is unthinkable without a united front. All these factors have created a new challenge for the world economy and an opportunity for the promotion of different political narratives.

I look at the possible content of sustainable development, analysing possible definitions by other researchers. In this way, one can see how diverse its interpretation is and how many areas it covers. Then the history of “infodemic” as a newly coined term is summarized and illustrated with related examples. The phenomenon is placed within the framework of hybrid warfare. The importance of fake news is underscored as a means of attack, of which examples are given. Finally, domestic and international cases of the use of fake news are presented.

2. Theoretical Approach

2.1. Sustainable Development

When we look at the connection between social sustainability and digital life, we find highly complex phenomena that are all interconnected such as climate change, pollution, hazardous chemicals, air, water, and soil pollution, or conservation of marine resources. The protection of wildlife is also essential, including stopping the illegal poaching and smuggling of protected species and managing the demand and supply of illegal wildlife products (Gombos–Sziebig, 2021). Infections due to disruption of the natural order of wildlife can be of any kind, but especially bacterial and viral infections in poorer countries and regions and their reduction should be a priority. In parallel, increased attention is also needed to protect human health from the effects of micro-particulate matter, which can have impacts on marine life, among other things, and play a key role in the safety of wildlife. The declaration of the right to a healthy environment can be linked to the Council of Europe, in particular to the 1993 Lugano Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, which states that “the environment includes natural resources both abiotic and biotic, such as air, water, soil, fauna and flora and the interaction between the same factors” (Hermann, 2016).

This also shows how important it is for us to work on research in clean energy and to protect the legal and moral foundations. In addition to paying attention to the environment and to sustainability, to human life itself, we can also talk about a kind of extension of legal and moral principles in general because that is part of this phenomenon. The development of competences and awareness raising among people in the context of global digitalization should be emphasized. Because of the parallel narratives, the commonly agreed social norms are constantly evolving and disintegrating, also in terms of environmental thinking, and so the debate on sustainable development is fragmenting, and people do not have the same understanding of certain theories and practices (Ellis, 2009).

There is also a shift in the sociological balance, both in terms of population and society, due to demographic factors that show either ageing or overpopulation,

so in one situation there is a large number of older people supported by a disproportionately smaller number of active and young workers (Eurostat, 2021), while in the other there is a majority of young people and a small number of older people (WHO, 2021). Political polarization is also an important factor, where different political narratives compete in a given society over the interpretation of certain issues (economy, culture, protection of the environment, etc.).

All of this has an impact on the scientific discourse, which may cease to exist or become extreme, thus eliminating discussions based on quantitative and qualitative research. It is by exploiting this that a significant part of fake news can be traced back to the competition between the narratives of a particular interest group based on pseudo-scientific material and misleading news. Hence the formation of opinion bubbles, which are fuelled by social media, encourage personal convictions, and on that basis the formation of camps of people with the same narrative, where almost everyone speaks with their own camp, appeals specifically to human feelings, whether they are political, national, or religious (Lovászi, 2017).

All this increases the modern welfare social disintegration. Therefore, sustainable development, based on dialogue and scientific debate, which then requires joint political action, cannot be handled jointly by different countries or coalitions of countries. If, for example, the United States and China, the two global leaders, or the G7, G8, or G20 countries, do not agree on certain environmental issues, then a unified solution cannot be achieved, which affects almost all countries. In summary, the challenge for everyone on the issue of sustainable development is to tackle fake news and to defend against it in order to collaborate.

2.2. Infodemic

At this point, it is important to mention the term “infodemic”, coined by David Rothkopf, a US political analyst for the Washington Post, in 2003, during the SARS virus outbreak, by combining the words information and epidemic – a reference to the fact that our communication processes can act like a virus.

According to Rothkopf (2003): “A few facts, mixed with fear, speculation and rumor, amplified and relayed swiftly worldwide by modern information technologies, have affected national and international economies, politics and even security in ways that are utterly disproportionate with the root realities.” Nowadays, it is not just a question of “media influence”, as the news flow of Internet sites and mass media, among other things, is merged in a complex way with the informal flow of mobile phone conversations, text messages, and e-mails, in which real facts, false rumours, interpretations, and propaganda are mixed in an opaque way (Karvalics 2021).

This process has also been joined by governments that have developed many one-sided and misleading information practices not only in the information race against each other but also within their own political communities.

This may be due to economic interests on the one hand and to efforts to undermine political authority or the position taken by the major powers on the spread of the COVID-19 in the context of the pandemic on the other. The communication fracture between the US–EU and China–Russia allies, linked to the different narratives, was evident in the way they offered different explanations for the emergence of COVID-19. According to China, COVID-19 is a virus developed by the United States of America and spread to destabilize China; the US narrative, on the other hand, was that China was experimenting with the virus, which was released, and they tried to conceal it. In so doing, they shifted the blame for the global economic problems onto China. The more cautious EU leaders have tended to take the view that it is not possible to know exactly what happened but that a commission of inquiry should be set up to investigate the events in great detail. So, the fact that certain communication processes can spread like viruses is very much part of modern society. This has only been fuelled by the COVID-19 virus, which has created economic challenges. A social example of this is the sharing of specific content by ordinary people in their use of the media, outside of political will. When they distribute an article, a video or a meme – sticking to the topic of COVID-19 –, they can express their fear, their uncertainty, or even their up-to-datedness to their immediate or wider environment, thinking that they are serving and informing the community.

Looking at the phenomenon of COVID-19, if uncertain, incorrect, or deliberately false news content is distributed, it can create uncertainty in the society (e.g.: What are the side-effects of the vaccine? What does the vaccine even contain?). This can reduce vaccination coverage and thus protection against the virus. But there has also been a significant number of the population even questioning the existence of the virus. And in the absence of clear answers to this, backed up by scientific facts and credible individuals, there will be less willingness to get vaccinated (WHO, 2020). This, however, hinders the return to the community, postpones the use of the mask in time and space, and it can also affect economic processes, as if not vaccinated, the person cannot get a job.

Fake news, in this case false or only partially true statements about COVID-19, undermine the phenomena and facts stated and investigated by experts, making the population more inclined to question the knowledge of the real professional, while less scientific but more widely heard/seen/accessed content may be more significant and better perceived.

This process is dividing society significantly since it can lead to a more limited, restricted, and even false state in terms of information. As a result, it makes it more difficult to reach a common dialogue and debate, and the optimal solution for most people is pushed further away. Healthcare workload is also an important part of the phenomenon, as statistics show that the higher the vaccination coverage, the lower the hospital load and the lower the number of illnesses developed (Ellyat, 2021).

This is not to say that there were no hospitalized people in the more vaccinated areas but rather that the fewer people who were vaccinated created a greater challenge of healthcare, which in turn could lead to a health crisis in the worst case, as many people were put on waiting lists for treatments due to COVID-19, including those with very serious illnesses (Lovas, 2020).

According to the Hungarian National Health Insurance Fund Manager (in Hungarian: NEAK), people waiting for surgery in 2022 cannot expect less waiting times than before the epidemic, and the situation may have even got worse compared to 2020 and 2021. [...] In cases of hip and knee replacements, spine surgery, orthopaedic surgery, hernia surgery, thyroid surgery, for example, we can see that the waiting lists have grown significantly in a year (NEAK, 2022). In terms of the number of waiting patients, the picture varies, but, for example, there are almost 7,600 more patients waiting for cataract surgery, or 80 percent more than a year earlier. (Koós, 2022)

Infodemic is characterized by the fact that those on one side of the narrative support and promote a particular view, while those on the other side present the complete or partial opposite as an example, with the adverse effects of creating a crisis situation, political isolation, and mistrust in society.

This is what also happened in Hungary, where the “anti-virus right”, “the anti-vaccine left”, and the “pro-vaccine government” have been using different narratives and conflicting explanations and have made the population more divided, suspicious, and distrustful of each other. The political closure was also noticeable at the level of the European Union and the United States of America, as each country or state dealt with the situation in different ways and at different speeds.

2.3. Hybrid Warfare

According to Sun Tzu: “Supreme excellence consists in breaking the enemy’s resistance without fighting.” One of the world’s greatest strategists made this statement in recognition of the importance of indirect warfare. And in the present case, this statement proves to be true in relation to disinformation, which can serve as a truly valuable tool, for example, to win a war without war, by spreading fake news. Sun Tzu’s interpretation is that one of the most effective means of bringing the enemy to his knees without fighting is indirect warfare since this is the only way to destabilize the enemy’s hinterland. Political and military actors have used the tools of influence in the past, but cyberspace has added a new dimension to their application (Aro, 2016). The media is an important player in hybrid warfare, which is becoming a battlefield as fake news spread. Research on fake news on

social media and in society has provided media science and military science with tools to detect the triggers and identify or even neutralize the harmful effects of fake news on public opinion. In addition to online space and social media, hybrid warfare also includes cyber-attacks, in which case multiple servers are attacking major public or private companies, paralysing their systems and even severely overwhelming telecom networks, power and utility grids. Fake news phishing is also part of the phenomenon, which can cause damage to major infrastructures, and hybrid warfare has become an essential part of political pressure.

2.4. Fake News

Fake news is a rapidly spreading content, which is why some of the content analysis and disinformation operations are also gaining in importance, as so-called troll groups share large amounts of fake news that are not real or are largely unrealistic but can reach a massive audience. In practice, this means that they can influence large numbers of people. There are also bot and robot software, which share a lot of content using tools that are more or less suitable for human interpretation. Fake news and fake videos pose a huge challenge to modern media and society at all times.

Fake videos fall into the category of deepfake. In these cases, artificial intelligence is manipulating a person's features (usually images or video, but also sound) to make them look like someone else.

News and information without any truth can spread in the media in a heartbeat. It is a difficult task to refute and counter these, and as a consequence, the examination and analysis of the implicit and hidden content of verbal and visual texts become more crucial. As social media provides a cost-effective and fast communication platform for reaching a broader audience, the disinformation operations on social media use three main tools: the aforementioned troll groups for commenting, bot (robot) software for sending automated messages, and fake news (Aro, 2016).

Fake News about COVID-19

The nature of fake news is to spread short, concise, to-the-point, and easy-to-understand messages. The following are examples of this:

- COVID-19 is a biological weapon that is alternately used by China, the United States, the United Kingdom, or even Russia (to destroy the EU and the NATO).
- COVID-19 did not break out in Wuhan, China – the US is hiding its true origin, which is in fact from US or US-owned laboratories (Gan, 2021).
- The outbreak is caused by migrants, and they are spreading the virus within the EU.
- COVID-19 is linked to 5G (e.g. Wuhan as a 5G testing ground).
- The EU has failed to deal with the crisis.

- Schengen no longer exists – Europeans are quarantined but migrants are free to move.
 - COVID-19 is fake news; it does not exist.
 - The EU can force mass vaccinations.
 - About drugs, it is claimed that there are natural treatments to cure the virus, often combined with anti-vaccine narratives (Portfolio, 2021).
- As can be seen, they meet the criteria described above.

2.5. The Institutional Framework against Fake News

Despite the fact that fake news has started to become a more serious novel threat only in recent years, with the expansion of the media, there are already institutional efforts to control it. The National Security Strategy, paragraph 68 states:

The number, variety, and impact of strategies sponsored by state and non-state actors to influence political, economic, and social processes are increasing. One tool of influence may be the organized and systematic mobilization of international public opinion against Hungary. The effectiveness of information operations is enhanced by the speed with which fake news and disinformation can spread via social media. Explicit influence can also be used to generate political and economic pressure, in which international actors may seek to limit our country's ability to act. (Hungarian Government Decree 1163/2020. (IV. 21.)

Since 2018, NATO has also paid special attention to fake news, which can be recognized as a hybrid threat. It has implemented an institutional framework for researching and countering hostile information and disinformation operations, including the following:

- The European Centre of Excellence for Countering Hybrid Threats in Helsinki, established in non-NATO member Finland and run jointly with the European Union;
- Strategic Communications Centre of Excellence in Riga, Latvia;
- Cooperative Cyber Defence Centre of Excellence in Tallinn, Estonia (NATO 2020).

3. Methodology

As a methodological approach, I have examined a number of relevant concepts in the development of social sustainability, conducting secondary research in the available literature. The concept of social sustainability is broad, covering many social domains. I have introduced the later communication-theoretically important

concepts of infodemia and pseudo-news, supported by plots. I have related the former to the notion of hybrid warfare with military implications. Thus, knowing the relevant communication and military theories and concepts, it is easier to understand their practical use and impact on society, as documented by media and academic sources in the context of COVID-19.

4. Findings

4.1. Local Examples

“Misinformation and fake news that appears to be real news is designed to manipulate readers – spreading false information for political purposes. And this is much easier and faster in the age of social media, although major Internet platforms are already taking serious steps to ensure that they reach as few people as possible” – says the page of the European Parliament (EP, 2020). As concerns about COVID-19 and a sense of uncertainty increasingly dominate world public opinion, disinformation campaigns on the subject are becoming more effective and dangerous. The fake news propaganda involves not only clickbait fake news sites but also (foreign) political actors with an interest in fostering information chaos. As we can see from local examples, the main role in the spread of fake news is often played by profit-oriented clickbait sites that are not linked to (foreign) political actors. In the beginning of 2020, the Cybercrime Unit of the police raided several editors of disinformation portals, who were charged with the crime of threatening public safety. Members of the network, which included a number of fake news sites, tried to create panic by using clickbait titles related to COVID-19. Among the stories they posted was one about a woman who collapsed and died at Nyugati railway station because of COVID-19, which police said had achieved its purpose of proving lucrative for the fake news spreaders. The primary source of income for disinformation portals is usually advertising on the site, which can even include advertisements from large companies (Political Capital, 2020).

Political Capital has divided the disinformation narratives of the Hungarian media space regarding COVID-19 into 4 groups:

- The “genocide” theories: the epidemic was spread directly by “someone”. According to several articles, the United States is “behind the COVID-19” to destroy China’s economy and tourism.
- The “biological weapon” theories: “somebody” has produced a biological weapon, and this would be the COVID-19, which would be used against China in a “third world war”.
- “Doomsday” theories: these theories predict the extinction of humanity based on concerns that some authorities are deliberately underestimating the real number of cases.

- The wish-fulfilling news about the “antidote” to the virus: false allegations about the antidote to the virus.

As negative as the impact of fake news on society is, most people do it for profit, without caring about the consequences. There are sites that can bring in automated or self-organized advertising in the context of articles, which pay them per click. They do this by using Facebook pages to drive traffic to them or by sharing the news in certain groups.

4.2. International Example

According to an article in the Guardian in 2021:

The vast majority of the anti-vaccine misinformation and conspiracy theories against COVID-19 have come from only 12 people. On Facebook alone, a dozen people are responsible for 73% of all anti-vaccine content, even though the US government and its regulatory agencies have deemed the vaccines to be safe and effective. Among dozens of doctors, there were some who have embraced pseudoscience such as bodybuilder and wellness blogger Robert F. Kennedy Jr., who has linked vaccines to autism and 5G broadband mobile networks (Salam, 2021).

US polls in 2020 showed that Democrats and Republicans have sharply diverging opinions on the threat posed by the virus and how the Trump administration has handled it (Schwartz, 2022). 43% of respondents approve of Trump’s response to COVID-19, while 49% disapprove of it. But the division is largely along party lines – 83% of the Democrats disapprove of Trump’s response, while 87% of the Republicans approve of it, and two-thirds of the Democrats are “very or somewhat concerned” about the virus compared to just 35% of the Republicans. Any crisis generates a high level of uncertainty, which leads to anxiety. This prompts people to find ways to resolve uncertainty and reduce anxiety by seeking information about the threat. They do what people always try to do – make sense of a confusing situation (Yamey, 2020).

4.3. USA versus China

The first outbreak of COVID-19 was in a virology institute in Wuhan, where viruses from bats were studied and several doctors were hospitalized before the virus became widespread. However, according to some foreign (and later national) media, the virus was contracted from soup made from bats. Although US experts and intelligence agencies have denied these reports, Republican congressmen, Donald Trump, and conspiracy theorists have continued to spread them (Yamey, 2020). The result was that 30% of people believed what Donald Trump said, and

25% of people thought it was intentional that China had actually developed such a virus. Then came China's reaction, from which point onwards the COVID-19 epidemic became a US versus China battle, at least in terms of communication. The AP and the Atlantic Council analysed 9 months of article product and social media postings to reveal what happened between the US and China (EP, 2020).

One of the lessons learned is that, after all, China has become the main producer of fake news, because until that time Russia was the country from which there was a significant outflow of articles. China quickly outstripped Russia in terms of the volume of news that flowed out, with Chinese diplomats targeting Western social media, having by then three times as many Twitter accounts and twice as many Facebook profiles as before, although this was previously banned in China. In 6 weeks, the posts were quoted by nearly 100,000 people in 54 languages and reached 275 million users (Brookie–Carvin–Kharazian–Robertson, 2021). China has also received international help to reinforce its message, with Chinese diplomats from France to Panama, Venezuela's foreign minister, and *Russia Today's* correspondent in Caracas all reinforcing their positions in the media. Saudi Twitter accounts were spreading the articles in Arabic, their own language, and then the Iranian and Russian media took them over without criticism, and it eventually circulated back to QAnon's chat platforms. On Chinese Weibo, more than 300 million people saw these posts, of course, in their in-country broadcasting. In the first half of 2020, almost 1,000 Chinese, Russian, or Iranian Twitter accounts generated millions of COVID-19-related interactions (Kinetz, 2021). China's interactions internationally, but mainly with the West, have been characterized by what is known as "wolf-fighting" diplomacy, i.e. aggressive, belligerent attacks by those critical of China on social media, as illustrated by the examples mentioned above (Faragó, 2022).

4.4. How Can We Protect Ourselves against Fake News?

Defending against fake news is not an easy task either for ordinary people in terms of filtering or for professionals in terms of stopping it. The European Parliament's Research Service (EPRS) recommends that it is important to check the content, the author, the sources, and the images. Before sharing, it is worth reflecting on the veracity of the news and considering our own personal bias, i.e. how much we fear, support, or oppose the news on the topic (European Parliament, 2019).

The Influence of Social Media

One of the affordances of tools and platforms is the so-called actor–network theory (ANT – Callon, 1980), which defines the world as a disordered nexus of local and global networks, where networks are composed of actors but themselves behave

as actors in another network. Since ANT is an increasingly influential but still deeply contested approach to understanding people and their interactions with inanimate objects, it is necessary to follow its future path with careful studies, especially in the field of healthcare.

Bypassing the gatekeepers of traditional media is also influential, as it is not necessary to be on television or radio if you can reach millions of views through print, online on social media channels, or even via SMS. Social media can also have indirect effects, as we have seen in the case of Donald Trump. The former president has been banned from several international organizations for his often-repeated strong statements and for what his environment perceives as extremist behaviour.

Social sustainability is a complex, multi-stakeholder process based on strong and stable cooperation. It has a very important role to play in tearing apart the social fabric and spreading fake news.

5. Conclusions

In conclusion, “infodemia” can be even more dangerous than a pandemic because while a pandemic is temporary and can be followed by a resumption of many aspects of life, an “infodemic” can become part of our daily lives for financial, political, or military reasons. It is therefore more likely to disintegrate social sustainability.

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