

---

## Disinformation of the Digital Era Revolution in Terms of State Security

---

Submitted 03/08/20, 1<sup>st</sup> revision 24/09/20, 2<sup>nd</sup> revision 24/10/20, accepted 17/11/20

Wiesława Zaloga<sup>1</sup>

**Abstract:**

**Purpose:** The purpose is to discuss concerns related to the phenomenon of disinformation in the age of the digital revolution, with a particular focus on the security aspects.

**Design/Methodology/Approach:** The study uses data from scientific and secondary data references in new IT technologies and digital society. Additionally, the publication cites the content of supporting publications, affiliated in the field of information security in a global environment. Data has been gathered from reports that estimate disinformation awareness in the digital society dimension. The IT and digital society environment are constantly, hence, the study is supplemented with original research results, confirming that there is a low level of public awareness concerning the disinformation in the digital environment. The study was conducted on August 5, 2020 - August 31, 2020 using the CAWI (Computer-Assisted Web Interviewing) method on a random research sample of citizens who are currently employed in any organization in 16 Polish provinces. 120 people participated in the study.

**Findings:** The results of the research are characterized by novelty of the issues and the fact that they have been conducted from this perspective security to a limited extent so far. This is particularly important from the point of view of national security, as information has a direct impact on the economic security of the state, which also affects the security of citizens. Disinformation is the main reason for exerting a negative influence on human emotions, reasoning, and behavior by creating a false image of reality. This publication is an introduction to a series of articles on the dissemination of knowledge concerning disinformation in the age of the digital revolution, understood as a threat to security and state stability.

**Practical Implications:** Taking into account the registered effects of the restrictions, decision-makers (government, supervisory boards, management boards and managers of companies) should accurately assess the performance of the logistics industry and verify the real impact of the pandemic on the development of the logistics services market and, indirectly, to take measures to stimulate the development of individual sectors of the Polish economy in the pandemic state.

**Originality/Value:** Awareness of the social environment in knowledge about disinformation in crisis conditions is very important for safety. The publication is addressed to researchers, decision-makers, entrepreneurs, employees, the educational environment, and consumers. Similarly, to this postulate, the purpose of this exposition is also to systematize and discuss points of view, rationalizing further empirical research.

**Keywords:** Disinformation, digital revolution, crisis, security.

**Paper Type:** Research in Security Studies.

---

<sup>1</sup>Corresponding author: PhD, University of Technology, Warsaw, Poland,  
e-mail: [wieslawa.zaloga@wat.edu.pl](mailto:wieslawa.zaloga@wat.edu.pl);

---

## **1. Introduction**

Nowadays, at every step, we see a huge influx of information. Whether we like it or not, we are in a sense dependent on it. Already at the beginning of the 1990s, the dynamic progress of globalization has been noticed, numerous political changes and the rapid development of the Internet. These phenomena show how important the role of information is in the modern, developing world. Many visionaries such as R. Curnow and I. Barron spoke about the creation of the so-called information society. Today, their vision has become a fact. We have moved from the industrial age to the information age, based on digitalization and computerization and their continuous development (Ejdys, 2017).

Information and communication solutions have become the main factor of changes on a global scale, which brought a new economic order. The consequence of applying changes was a new type of society - based on knowledge. Information has become the basic good of the knowledge-based society, the information society - a symbol of the modern world, overcoming barriers and obstacles, a symbol of development and crossing borders.

Information has become a factor thanks to which we can control various types of processes in a simple way. Thanks to information, we can set new rules, create new systems, or simply make new contacts. It cannot be denied that today's information is becoming a necessary phenomenon in interpersonal communication. With the development of successive elements of the information and communication infrastructure, especially telecommunication networks and digital platforms, human dependence on information becomes greater.

Part of society is dependent on obtaining information. Goban-Klas raises an important issue in his article "Uninformed Society" (Goban-Klas, 1988), saying that "if we assume that without matter there is nothing, and without energy everything is stationary, then without information there is only chaos". This statement very well shows the dependence of human being on information and communication, which are the basis of regular human life. One may be tempted to say that the subject of society cannot exist without information and information communication.

However, the same factors thanks to which we talk about the development of modern economies or societies have their negative aspects. The development of the Internet, social media and the introduction of modern technologies have significantly increased the risk of disinformation. Currently, we are so preoccupied with everyday life that false information spreads on a previously unimaginable scale, and its reach has become so important that it can affect the functioning of even the entire country.

Most of us have come across the phenomenon of disinformation. It most often occurs in the media: radio, television, social networks, and the press. Disinformation is designed to influence us, our decisions, and choices, but also social and economic attitudes. More and more countries as well as organizational units use social media for such activities.

In Poland, the first changes in the functioning of the country's socio-economic life in connection with the SARS-CoV-2 virus infection were introduced on March 11, 2020, when the World Health Organization (WHO) announced a pandemic, as a result of which Poland was one of the first countries in Europe to introduce. On March 13, by regulation (Regulation 2020), the state of epidemic threat in force from March 14 until further notice. Introduced, among others, restrictions on the movement of citizens and the functioning of institutions and workplaces.

In the first weeks after the outbreak of the Covid-19 pandemic, the public faced major challenges in ensuring information security. In the cyberspace environment, the information that have appeared caused anxiety and destabilization in everyday life in the public environment. The research was carried out as part of the research project "Intellectual capital management in the conditions of the 4th industrial revolution - conditions and consequences for national security and business" carried out by the research team at the Institute of Organization and Management of the Department of Security, Logistics and Management. The aim of the research was to diagnose the awareness of the existence of disinformation amongst middle-level managers and to ensure security of internal processes in organizations and the society (citizens) in the context of national security.

As a result of the research, the proposed solutions to this problem were presented. The concepts of information and information communication were characterized, showing their significant impact on the life of contemporary societies. The article shows the basic manifestations of information manipulation, introduces the concepts of disinformation in the media and indicates the most common methods of disinformation. Solutions to the problem of information manipulation and disinformation in contemporary in the modern digital world are proposed. The article focuses on the issue of information brokerage as one of the many possible mechanism? in the defense mechanism against disinformation.

For the purposes of the article, three research problems were developed:

1. The state of awareness and knowledge among employees and citizens regarding cybersecurity in ensuring the security of organizations and society.
2. Assessment of actions taken by companies to ensure information security during a pandemic.
3. The approach to human capital management in public organizations as an essential condition of national security, as well as human capital management in

---

the context of conditions and consequences for national security in the second decade of the 21st century.

4. Protection of personal data in the context of security of the state and citizens.

## **2. The Concept and Essence of Information and Information Communication**

In the era of a constantly developing, knowledge-based society, it is difficult to precisely define the concept of information. It is difficult to find a more ambiguous and complex concept, which is often the reason for the lack of understanding or even proper application of it. It is important that the term has long gone beyond the standard forms of defining it, and this concept is updated with the development of economies and societies. It can be said that the concept of information has become a rather general category such as that of an atom or matter. As a result, there are constant disputes over terminology, but also a variety of interpretations of what at first seems obvious and understandable.

This phenomenon is pointed out by N. Postman, who wrote “Revolutionary technologies certainly create new definitions of old terms, and we are not fully aware of this process. Therefore, it is tricky, dangerous, and quite different from when new technologies introduce new terms into the language. [...] New things need new words. But new things also modify old words - words with deeply entrenched meanings. Such changes take place quickly, decisively and somewhat quietly” (Postman, 1995).

Information is everywhere. It exists all around us, whether we like it or not. We live in times when we often do not notice this information - it has become something obvious, necessary, even basic for proper functioning. As Gleick and Siwek (2012) writes, information “rules our world [...] is blood and fuel”. Information, therefore, is something that reaches each of us from the outside, thanks to our cognitive abilities or through specialized devices or systems. In technical terms, it is treated as a set of understandable signals and symbols and the corresponding feelings that a person experiences in the process of processing.

Taking into account the above considerations, it should be mentioned that the history of the formation of the concept of information indicates that it is not only a subject of scientific theories, but also a component of everyday experience and everyday speech. It is equated with the message or set of any data included in the knowledge (Hetmański, 2013). In addition, it is combined with notification and communication understood as informing.

Shannon C.E. was the first to try to describe the essence of information. His works focused on the analysis of signal transmission through the information channel. His theory is called quantitative information theory but is basically considered a communication theory. Shannon believed that the goal of information was to

reduce entropy (uncertainty, ignorance). The author of the quantitative theory pays attention not to the information itself, but to its quantity, the relation of having information and thus reducing entropy. This theory identifies information with data and is close to technical science.

Another approach was used by B. Langefors, who initiated the so-called theory. infological. The assumptions of this approach, contrary to Shannon's theory, distinguish information from data and emphasize the requirements of information users. Langefors's thesis is that information can only arise in the human mind as a process of data interpretation. However, B. Langefors paid special attention to the fact that the information was subjective. This means that everyone can draw different conclusions or information from specific data (Ibidem).

On the other hand, the concept of communication can be understood as the process of transferring information from a natural language system to a technical system and between different logical systems. Communication means giving meaning to words, although it is not merely the source of data transmission. Communication is a phenomenon that occurs between individuals, entire organizations, and societies (Wódz and Wódz, 2003).

The essence of the communication process is shown by C.E Shannon and W. Weaver, according to which the sender's mind is the source of the message, and the necessary condition for transmitting it is encoding with the use of readable and understandable signals (Ibidem).

One type of communication is informational communication. Its purpose is to increase the awareness and knowledge of the individual, as well as disseminate and share various ideas. Information communication aims to explain various phenomena or problems. Its task is to present how to act in specific situations, as well as create solutions for mutual understanding between people or organizations. It is important to note that informational communication has no intention of influencing the individual.

### **3. Basic Manifestations of Information Manipulation**

Currently, manipulating information is something commonly used, with which you can easily manipulate people's behavior. The potential recipient receives information that is designed to have a specific impact - positive or negative. In a positive context, the information is intended, inter alia, to reduce the recipient's information gap, help in making the right decisions, confirm information previously acquired, but also constitute an advantage over others. The negative context consists of various types of disruptions in the reception of information and falsification of the information provided.

---

Manipulation is a process consisting in a specific sequence of treatments. Which make it easier to influence someone else's decisions. Manipulating information is therefore a process performed on the flow of information from the sender to the recipient. As for the transmission of information, they may include omitting certain information, suggesting information by the order in which it is presented, lying or even fraudulent provision of information.

In manipulating information, most often encountered is:

- pseudo-information - information is provided by various messages
- disinformation - information inconsistent with the facts,
- papain information - subjective information resulting from misinterpretation of the content of messages.

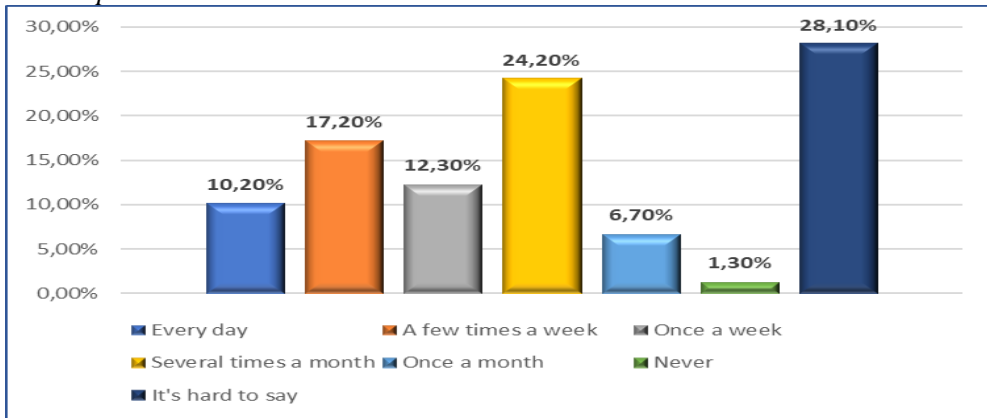
Information manipulation concerns all of us, regardless of age, wealth, etc. The media play the greatest role in this subject: television, internet, radio. The purpose of doing so is to maximize profits and to become dependent on advertising funding. Juszczuk writes "One of the characteristic features of manipulative procedures used by the mass media is imposing a point-based view on problems, not seeing them in their full, holistic dimension. Mass media is based on the stages of behavior and people's natural tendency to avoid extremes, participate in the majority group, and think in terms of "the majority is right". It builds a sense of security and legitimizes the normality of views, impressions, and feelings. In this way, the pressure of the so-called public opinion (Juszczuk, 2000).

Often, manipulation tends to give negative information, i.e. replace good information with bad information or simply mislead recipients. The manipulator most often refers to something that is credible but interprets it in a way that is convenient for itself. Chart 1 shows the percentage distribution of responses to the question: How often do respondents find information on the Internet that they believe to be falsified or manipulated?

The research shows that the respondents are not aware of the situation. How often do they find information on the Internet which they consider falsified or manipulated? The high rate of 28.10% proves the lack of awareness of the society because of the conducted research. On the other hand, 24.20% of the respondents assessed that they encounter falsified information several times a month. 17.20% of respondents several times a week, and 12.30% once a week.

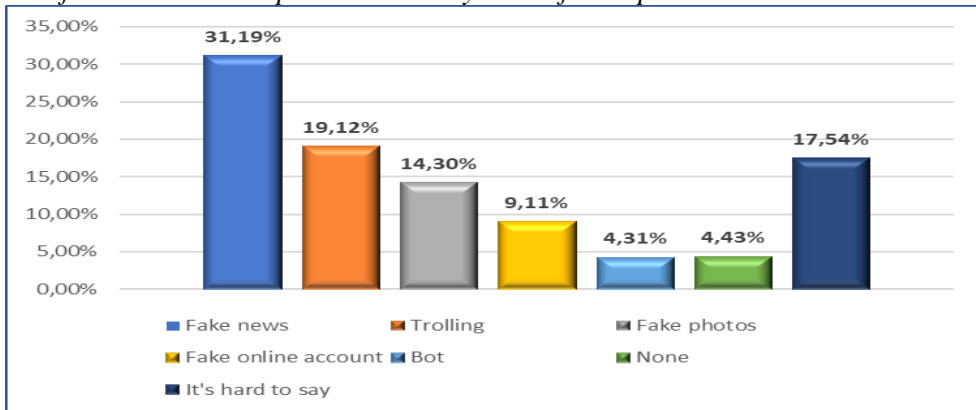
Taking into account the highest indicator, which shows the lack of awareness and knowledge of the society about the scale of false information in the virtual world, it can be assumed that after the respondents' awareness of the level of risk of obtaining falsified information online, the results of the research may change significantly. Chart 2 shows the percentage distribution of answers to the question: Based on the respondents' experiences in the last 6 months, which of the following forms of disinformation or manipulation did they most often experience?

**Figure 1.** Percentage distribution of answers to the question: How often do respondents come across information on the Internet that they believe was falsified or manipulated?



*Source:* Own elaboration based on author's research.

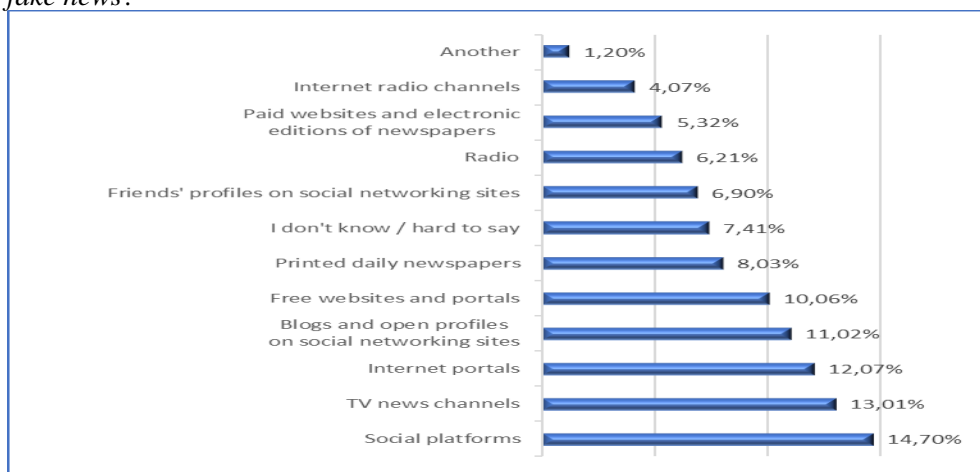
**Figure 2.** Percentage distribution of responses to the question: Based on the respondents' experiences over the past 6 months, which of the following forms of disinformation or manipulation did they most often experience?



*Source:* Own elaboration based on author's research.

Based on their personal experiences, the respondents assessed that they most often dealt with forms of disinformation and manipulation in cyberspace in the form of fake news. This form obtained the ratio as high as 31.19%. The group of respondents came second, with 19.12% of them indicating the form of disinformation trolling. The answer that may indicate the respondents' unawareness of the existence or distinction between forms of manipulation and disinformation was placed in the third position. In this case, the answer was: it is difficult to say what constitutes 17.54% of the answers. The high rate of 14.30% indicated fake photos.

**Figure 3.** Percentage distribution of answers to the question: Which of the following sources do respondents consider particularly conducive to spreading fake news?



**Source:** Own elaboration based on author's research.

Figure 3 presents the percentage distribution of answers to the question: which sources do the respondents think are particularly conducive to spreading fake news? As a result of the research, the highest percentage of 14.70% concerns social media platforms. In the second place, the respondents indicated TV news channels, which were indicated at the level of 13.01%. In the opinion of the respondents, especially favorable for the spread of fake news are social networks 12.07%, blogs and open profiles on social networks 11.02% and only slightly fewer responses were given to free websites and websites.

When analyzing the results of research on the social perception of disinformation and manipulation, it is important to determine which Internet users are perceived as responsible for its creation and dissemination. From a security perspective, attention should be paid to the impact of fake news on interpersonal relations and the security of global politics.

#### 4. Disinformation - Source, Definition, Effects, and Methods

“Disinformation is not a new phenomenon. However, a changing media environment means that disinformation can now spread faster than ever, to more people than ever. The rise of disinformation and the multiple threats this poses to our society means that we must respond urgently. And we must do this while continuing to embrace the incredible opportunities open to us to engage with the public in an online world” (Aiken, 2019).

Disinformation is the deliberate creation and dissemination of false and/or manipulated information that is intended to deceive and mislead audiences, either



for the purposes of causing harm, or for political, personal or financial gain (Ibidem, 2019).

Disinformation according to A. Markowski is a process based on “deliberate, incorrect information”. According to the Dictionary of the Polish Language, disinformation is “misleading someone by giving misleading or false information” (Markowski, 2004). It can take various forms:

1. fabricated content - when new content is completely false and designed to deceive the recipient and cause harm;
2. manipulated content - when the real information or image is distorted to deceive the recipient;
3. imposter content - if it falsely cites real sources;
4. false context - when the real content is located in a false context (Lipiński, 2018).

However, according to S. Dubisz, disinformation should be interpreted not only as „untrue, misleading information, but also a situation in which reliable information is lacking”. Considering the above-mentioned definitions, disinformation is closely related to communication. In the process of communication, there are elements such as participants, message, communication channels, and feedback. The most important in the disinformation process is the message, i.e. how the information is transferred between the sender and the recipient. It is in the person of the information sender that the source of the disinformation should be looked for, because the person sending the message has an impact on whether it will be consistent with the assumption of truth or falsehood (Dubisz, 2003).

There are many reasons for introducing disinformation. We can distinguish here, inter alia, linguistic manipulation, post-truth, or the currently popular so-called fake news. Disinformation is used for both marketing and political purposes.

What is characteristic of the information society is the universal access to the mass media, which results in a constantly growing group of potential recipients of wrong “information”. In times where the Internet is becoming the primary source of information, the procedure of transmitting content aimed at influencing the recipient in such a way that the message is based on emotions and not facts is very often used, these are the so-called post-truths or colloquially speaking “Fake news”.

An example of the use of post-truth in the media can be recalled the situation from January 2017. Kellyanne Conway, a representative of the White House, in a dispute over the size of the convention at the inauguration of Donald Trump's presidency, convinced CNN viewers of millions of Americans cheering for the new president at the inauguration ceremony. The station's editors assessed the number of people gathered at the inauguration as much more modest than at the greeting of Barack

---

Obama's presidency. Conway replied that her information did not contradict the facts but was “alternative facts”.

Undoubtedly, the use of various methods in disinformation should be noted here. Basically, we can talk about two important methods of disinformation: biased information and disinformation through language (spoken word) which is the carrier of thoughts (Zwoliński, 2009).

Biased information - must first of all be credible, which is ensured by the informant, the way of presenting him, blurring his real intentions, or by the information itself, which should correspond to the mentality of the group to which it is addressed, contain specific evidence (e.g. photos, letters, recordings, etc.), or its source should be impossible to detect by the addressees or should satisfy the need for a logical explanation of the facts.

In contrast, disinformation through language - which is the carrier of thoughts. Linguistic disinformation measures are primarily aimed at: forgery of language; creating words and expressions that are carriers of „myths”; the impoverishment and transformation of language (Karpieński, 1985).

Disinformation is an overwhelmingly negative phenomenon, with serious effects at the level of an individual, but also of society. It can be said that disinformation is one of the effects of spreading easy access to information in the mass media.

Every day, millions of people search for information in cyberspace. However, as easily as we search for information on the web, we can just as easily enter it there. Often the information provided in the media is subjective opinion, and we treat them as an undisputed, reliable, and professional source of information.

Following this example, when looking for information on the Internet, e.g. on human health, we find information about threats to health or even life. We often follow the suggestions or recommendations we find, without checking their source or consulting a specialist. Mass media create impulsive decisions by the recipient, often ill-considered, based mainly on our emotions. They try to blur the boundaries of rational decision-making by the recipient.

Another effect of disinformation is the duplication of false information often heard in the mass media. The result of this is the constantly growing disinformation of the society and the growing distance to the information presented to us in general. The effect of duplicating false information may also undermine generally accepted facts or even expert positions. No wonder, since the same information can be found in several or even a dozen or so places in the media, and what is worse, each transmits the same information differently.

## **5. Disinformation in Terms of Security**

Disinformation can cause serious damage. Not only for political reasons, such as election impact, business impact, false information about products, or personal, humiliation and false accusations. BuzzFeed has analyzed the 20 most popular fake news from the American campaign in 2016 caused more reactions on Facebook, as much as 8.7 million than the 20 most popular texts from traditional media with the result of 8.3 million ([www.who.int/campaigns/connecting](http://www.who.int/campaigns/connecting) 20.09.2020).

Due to such a huge amount of information, many websites (mainly government websites) warn against believing in false information. This is mainly because most people have trouble distinguishing between the information that is reaching them. It is precisely because of this aspect that many countries have started to take active steps against the spread of disinformation.

“The European Union is determined to protect societies, citizens and their freedom from hybrid threats. Therefore, in line with the strategic program for 2019–2024, it prevents disinformation and the spread of erroneous information. It wants to strengthen cooperation in preventing attacks, and in detecting and combating them. It also aims to increase resistance to these threats” ([www.consilium.europa.eu](http://www.consilium.europa.eu) 20.09.2020).

In view of the increase in disinformation activities related to the Covid-19 pandemic, the EU institutions are trying to raise awareness of the dangers of disinformation and encourage the use of reliable sources. The EU also turned to online platforms to help tackle fake news and other misinformation and remove illegal or false content. In this way, more than 3.4 million suspicious Twitter accounts participating in discussions about the coronavirus have been detected since the beginning of the pandemic ([www.who.int/campaigns/connecting](http://www.who.int/campaigns/connecting) 20.09.2020).

On 10 June 2020, the European Commission and the High Representative for Foreign Affairs and Security Policy issued a joint communication on “Fighting Covid-19 Disinformation - Putting the Facts into a Voice”. These institutions proposed how to specifically increase the EU's resilience to disinformation. They indicated to step up EU support for scientists and fact-checkers, strengthen EU strategic communication and increase cooperation with international partners, while promoting freedom of expression and pluralism” ([https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_1006](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1006) 20.09.2020).

Since the outbreak of the crisis, Twitter has seen a 45% increase in the use of Twitter Moments - curated content that allows global coronavirus tracking and has challenged over 3.4 million suspicious accounts targeting coronavirus discussions. The Facebook and Instagram helpdesks have referred more than 2 billion people to resources from health authorities, including the World Health Organization,

through their COVID-19 Helpdesk. YouTube Google looked at over 100,000 videos related to dangerous or deceptive coronavirus information and removed over 15,000 of them. Microsoft has introduced a dashboard on LinkedIn and an updated coronavirus-related one-stop shop called Daily Rundown, reaching 96 million people daily. Platforms have removed millions of misleading advertisements from the internet about overpriced, ineffective or potentially unsafe products (<https://www.who.int/news/item/29-06-2020-covidtimeline> 20.09.2020).

Disinformation interferes with democracy in two ways it captures and distorts public discourse and disrupts the democratic one. The advent of social media marked the beginning of a new era in the public sphere. This user-friendly communication interface allows content to be published without economic or educational barriers to entry facilitating the formation of groups and building the so-called global village. The decentralized and horizontal discussion taking place in this media cannot be supervised by the same instruments as in the case of centralized, traditional mass media. This out of control media space fosters rapid innovation in line with business interests and is used in disinformation. The global world is characterized by uncertainty and threats in the political and existential dimensions that are not physical or visible to the naked eye.

## **6. Selected Tools of Defense Against Disinformation**

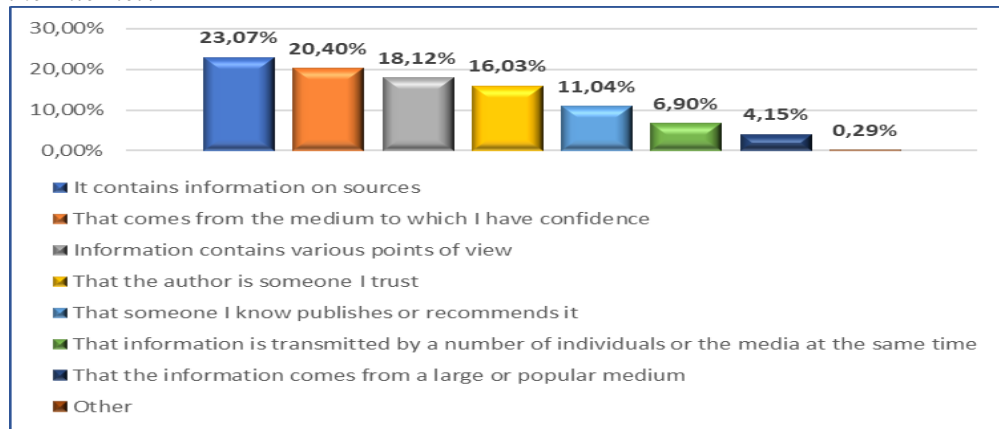
Each medium can, and even should, counteract the spread of disinformation by skillfully denying false information and creating good-quality content that its recipients can trust. We all encounter information manipulation and then disinformation. Nobody can get away from it. Since manipulating information is a common phenomenon, are we helpless against it? Manipulation are activities that are often on the border of the law, and they certainly conflict with the laws of ethics. The law itself cannot combat manipulation. Participants in cyberspace as individual individuals, but also as a society, we must try to understand the essence of manipulation. To be able to defend ourselves against its negative effects, which is disinformation. The best defense against disinformation is knowledge. An effective tool against it will be to increase the level of education of the society.

We can only deal with the manipulation of information if we manage to unmask it. Ways to fight manipulation include careful observation, obtaining reliable information and analyzing the facts.

In the event of mass media disinformation, a defense can be found in ensuring freedom of expression and the flow of information. First, one should not be influenced by the information provided in the media as the final one. To protect yourself from disinformation, you should be open to various sources of information, and sometimes look for information on the topic you are interested in. Chart 4 presents the percentage distribution of answers to the question: what is the

most important for the respondents in assessing the credibility of information found on the Internet?

**Figure 4.** Percentage distribution of answers to the question: What is the most important for the respondents in assessing the credibility of information found on the Internet?



**Source:** Own elaboration based on author's research.

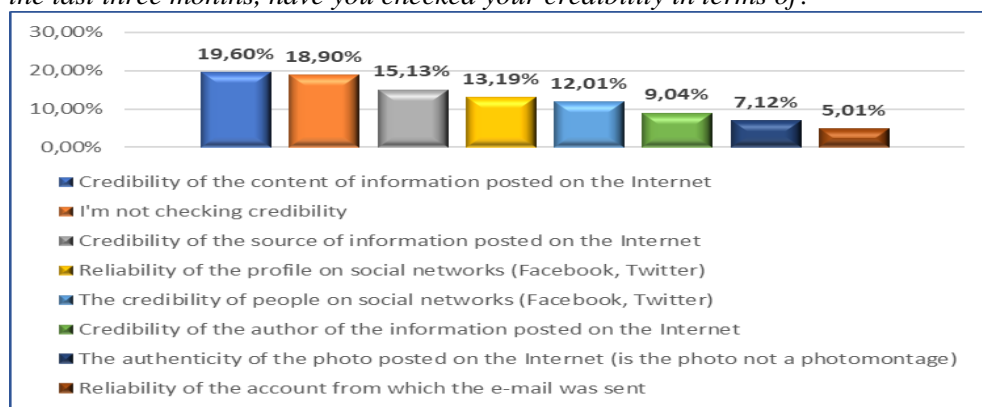
The research project addressed the most important factors for respondents that are considered in assessing the reliability of information in cyberspace. The data analysis presented in the chart above allows us to draw basic conclusions. The first of them relates to the credibility of the content of information posted on the Internet, where Internet users constitute a group of only 23.07%. This is a low indicator, which suggests that, however, the respondents do not always check the sources from which they obtained information. 20.40% of respondents trust the media they trust. Another group of 18.12% analyzes the obtained information from different points of view. Society also obtains information that is signed by authors they trust. In this case, the respondents constitute 16.03% of the respondents.

The assessment of the reliability of information in cyberspace mobilizes the actions of respondents who were asked whether they check the credibility of the content, authors or profiles obtained when obtaining information from the Internet? The highest rate of 19.60% was obtained by the group of respondents who in the last three months checked the credibility of the content of damaged information on the Internet.

However, the situation that results from the conducted research is disturbing, where 18.90% of the respondents do not check the credibility. On the other hand, 15.13% of respondents check the credibility of the source of information posted on the Internet. The credibility of profiles and social networking sites such as Facebook or Twitter was noted in fourth place, which accounts for 13.19% of respondents. However, the credibility of people on Facebook or Twitter is checked by only

12.01% of respondents. The results presented in the chart above show the carelessness of the respondents as regards the lack of determination in the context of the actions taken to check the source of information, which may have an impact on social security.

**Figure 5.** Percentage distribution of answers to the question: *Using the Internet in the last three months, have you checked your credibility in terms of?*



*Source:* Own elaboration based on author's research.

## 7. Conclusions

The phenomenon of disinformation occurs on a large scale in cyberspace. One may be tempted to say that with the development of modern societies and economies, it will occur on an increasing scale, as a result of the expanding stream of information, to which we have increasingly easier access. Disinformation and manipulation in cyberspace is a phenomenon that we will have to deal with, whether we like it or not.

The basic element of dealing with disinformation or manipulation in the cyberspace environment is broadening one's horizons with various sources of information. It is important that we are aware of the consequences of disinformation and do not pass by it indifferently. It is important to be aware of possible manipulative actions and independence in the reception of media messages. Reliable knowledge acquired at school, which should constitute the basis for effective self-defense against manipulation.

Disinformation in the era of the digital revolution is an extremely dangerous phenomenon, especially in the era of a pandemic. This is due to the limitations imposed by the covid-19 situation. Therefore, nowadays in the age of technological development, it is so important to have knowledge about the sources of our information. Informing the society about the existing threats and education are a necessity that will allow to raise public awareness of the existence and counteracting disinformation manipulation.

Another conclusion drawn from the information appearing on the Internet network in the first period of the pandemic is that the epidemic was a test of the resilience and professionalism of the communities responsible for informing the public about threats on the Internet network. Professional circles have taken effective measures to reduce the risk of mortality in Poland. The Polish government introduced, inter alia, a ban on the movement of society and the obligation to wear masks and gloves. Some employees switched to remote work. Hygiene and health safety procedures have been implemented. The digitalization processes were accelerated to minimize the circulation of paper documents in favor of electronic documents, thus minimizing direct contact with customers and minimizing the risk of disease. This, however, turned out to be a great opportunity to introduce disinformation on the Internet.

To sum up, in the era of threats and limitations related to the coronavirus pandemic, society finds itself in the cyberspace environment. This creates great opportunities for an aggressive misinformation policy on the Internet. Despite the difficulties dictated by the pandemic situation, we must ensure public awareness of obtaining information from the Internet. The results of the research clearly show that we have a lot to do in this regard. The information security society must be prepared for unexpected challenges.

### **References:**

- Ejdys, S. 2017. Informacja we współczesnym świecie – próba systematyzacji wiedzy. Warszawa, SGH, Roczniki Kolegium Analiz Ekonomicznych, zeszyt 44, s. 11.
- Goban-Klas, T. 1988. Społeczeństwo niedoinformowane. Polityka, nr 22.
- Gleick, J., Siwek, G. 2012. Informacja. Bit, wszechświat, rewolucja, tłum. Kraków s. 12.
- Hetmański, M. 2013 Epistemologia informacji. Copernicus Center Press Sp. z o.o. Kraków.
- Markowski, A. 2004. Wielki słownik poprawnej polszczyzny. PWN, Warszawa, s. 126.
- Postman, N. 1995. Technopol. Triumf techniki nad kulturą. PIW, Warszawa, s. 16-17.
- Rozporządzenie Ministra Zdrowia z dnia 13 marca 2020 r. w sprawie ogłoszenia na obszarze Rzeczypospolitej Polskiej stanu zagrożenia epidemicznego (Dz.U. 2020 poz. 433).
- Wódz, K., Wódz, J. 2003. Funkcje komunikacji społecznej. Dąbrowa Górnicza, s 7.
- [https://www.who.int/campaigns/connecting-the-world-to-combat-coronavirus/how-to-reportmisinformationonline?gclid=EAIaIQobChMIz5aQp437AIVldGyCh31VwIoEAAYASAAEgIIuvD\\_BwE](https://www.who.int/campaigns/connecting-the-world-to-combat-coronavirus/how-to-reportmisinformationonline?gclid=EAIaIQobChMIz5aQp437AIVldGyCh31VwIoEAAYASAAEgIIuvD_BwE) [20.09.2020].
- <https://www.consilium.europa.eu/en/policies/coronavirus/fighting-disinformation/> [20.09.2020].
- [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_20\\_1006](https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1006) [20.09.2020].
- <https://www.who.int/news/item/29-06-2020-covidtimeline> [20.09.2020].