THE EVOLUTION OF DISINFORMATION: A STUDY OF DIGITAL TRANSFORMATION OF FAKE NEWS

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ABSTRACT *Fake news has the power to shape and bias public opinion, spreading across mainstream and online channels. In the Internet era, new technologies enabled both the creation and dissemination of an increasing amount of fake content. Therefore, with the changing landscape of disinformation, the aim of this research is to examine how scientific literature has covered changes in the evolution of fake news and what changes are noticeable following the deep penetration of the Internet and user-generated content into the general population. Out of 16,093 studied papers listed in EBSCO, Emerald, ProQuest, Science Direct, Scopus, and Web of Science databases, the systematic literature review identified 85 relevant sources related to fake news published in areas of communications, marketing, journalism, psychology, history, and law. The present research provides a comprehensive overview of fake news transformation in the digital age. The occurrence of new forms and types of digital fake news is noticeable. Moreover, the study demonstrates that the way of sharing and disseminating fake news has changed by introducing automated and AI solutions capable of creating and sharing fake content. Further, the term 'fake news' has transformed from a single semantic term to a two-dimensional phenomenon, including both the fake news genre and the fake news label. Lastly, the usage of fake news in the novel context as a critical pillar of the info-war strategies has been examined.*

KEYWORDS

FAKE NEWS, DIGITAL TRANSFORMATION, COMMUNICATION, CRISIS MANAGEMENT, CRISIS COMMUNICATION, DISINFORMATION

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INTRODUCTION

Fake news has existed since the beginning of human civilization and seems to be an inseparable part of it (Gorbach, 2018). However, although present throughout history, the importance of fake news has been undermined with little attention paid to the channels of its dissemination despite the concept of "today's fake news becoming tomorrow's fake history" (Nolan, Huff & Lyons, 2021, p.1).

Fake news can be identified in all spheres of life, including politics, business, entertainment, and even sports. The phenomenon of fake news became prominent in the digital era, attracting researcher's attention, and spreading across available media and channels (Burkhardt, 2017; Shu, Sliva, Wang, Tang & Liu, 2017). The Internet era brought new technologies that enabled both the creation and dissemination of an increasing amount of fake content (Mustafaraj & Metaxas, 2017) along with AI and the emergence of deepfake (Westlund, 2019). More than ever earlier in history, fake news, has now the power to shape and bias public opinion, spreading across mainstream and online media, as well as in the dark social zone.

History has provided numerous examples of how false stories and rumors were spread, along with a description of their importance and role even in pre-press times (Burkhardt, 2017). However, interest in the phenomena of misinformation and disinformation grew with the development of civilization and the rise of media. The mounting popularity of print and electronic media led to a plethora of opportunities to deceive audiences. However, the distinction between the terms 'fake news' and 'misinformation' needs to be made for a comprehensive understanding of these phenomena. Although not a novel phenomenon, disinformation has recently started to attract attention and has become recognized as a threat. Disinformation is defined as "verifiably false or misleading information designed, presented and distributed for economic, political or other benefit and with the intention of deceiving the public" (Grbeša Zenzerović & Nenadić, 2022, p. 10). Due to its intentional nature, HLEG's (2018) report indicates that disinformation is different from illegal forms of speech. Without any doubt, fake news can be classified as a subset of disinformation, despite the fact that the term 'disinformation' covers a broader area that goes beyond an imitation of news. According to Grbeša Zenzerović and Nenadić (2022), following the work of Tandoc Jr, Lim and Ling (2018), the term 'fake news' is used appropriately when it refers to posts and articles based on false information, formatted to look like news, with the aim of deceiving readers for financial, ideological or other gain. In this context, misinformation is perceived as erroneous, false, or misleading information spread in the public space without bad intention is considered as misinformation (Grbeša & Nenadić, 2022). Based on the work of Alcott and Gentzkow (2017), Selaković, Tarabasz and Gallant (2020) outlined the distinction between fake news and misinformation, highlighting that misinformation, although a close cousin, cannot be classified as fake news due to its unintentional nature. The sources of misinformation, as listed by Selaković, Tarabasz and Gallant (2020), include "unintentional reporting mistakes, rumors that do not originate from the particular article, conspiracy theories, satires unlikely to

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

be misconstrued, false statements given by politicians and reports that are slanted or misleading, but not outrightly false" (Selaković, Tarabasz & Gallant, 2020, p. 236).

The topic of fake news has been intensely exploited in recent years. Although there is an evidence of the usage of the terms 'fake news' and 'fake online news' prior to the 2016 US presidential elections (Lilleker et al., 2016), the term 'fake news' became a widely investigated and extremely popular phenomenon after 2016 (Burkhardt, 2017; Habgood-Coote, 2019; Shu et al., 2017; Waisbord, 2018). Fake news is being constantly and ever-presently dispersed across all spheres of life. 'Fake news' became the phrase of the year in 2017, according to the American Dialect Society and Collins Dictionary (Anderson, 2018). Scientific circles have followed the trend of interest in fake news, and hundreds of articles have been published in the last five years.

Technology enabled the propulsive emergence of fake news. As highly interactive platforms, the Internet and social media have enabled two-way communication and content generation at levels unprecedented in history (Selaković, Gallant & Tarabasz, 2020). User-generated content has created opportunities to reach large audiences in the same way as traditional mass media (Fakhry, Tarabasz & Selaković, 2023). This new paradigm, in which users create and share content in the digital space, has provided a suitable environment for the mass production and proliferation of fake news. Currently, with the increasing everyday use of the Internet and the widespread influence of social media, any person, organization, or brand can become a target of fake news. Fake news spans a range of mainstream and new media, and user-generated content bounces between online and offline publishing platforms. In the digital environment, fake news usage has evolved from single posts to deliberate, systematic, and sustained efforts to damage credibility and assassinate reputations using targeted campaigns (Samoilenko et al., 2016).

The Internet era has changed the paradigm of fake news creation and distribution. In addition, the rapid growth of fake news has introduced another motivating factor that was not present in previous eras: the willingness to profit directly. As a result, an entire fake news industry has evolved over the past few years, and new, important actors, orientated solely towards direct profit, such as massive click farms and scammers, have emerged in the digital space. A click farm is a form of fraud wherein a large group of people are hired to click on selected online posts or paid advertising links to artificially increase the number of clicks (Beger, 2018). With scammers focusing their attention on more sophisticated ways of approaching victims (Jakobsson & Leddy, 2016), it has become possible to organize an attack by utilizing social media and interactive websites to guarantee a negative impact on a person or company's reputation (Sanders & Jones, 2018). Therefore, not only influencers but also profit seekers and fraudsters appear to be motivated to generate fake news (Dynel & Ross, 2021).

Another possible reason to generate fake news is to earn online traffic and clicks. Recently, the term 'clickbait' was introduced to describe this type of content in the digital space. 'Clickbait' is defined as misleading online content in which headlines are

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

designed to encourage the online reader to click through (Chen et al., 2015; Kormelink & Meijer, 2018). Although not all clickbait content is fake news and some forms of clickbait are substantially different from fake news (Chen, Conroy & Rubin, 2015), such titles and headlines can play an essential role in fake news generation online. The more shocking and sensational the clickbait headline, the higher the chance a reader will click on it (Biyani et al., 2016).

In the context of motivation to share fake news, clickbait can have two general applications:

>Increasing website traffic (Cherubini & Nielsen, 2016) to create an exaggerated picture of the number of visitors to the website or portal. Although this has proved to be a complex operation to monetize directly, this aspect has an indirect financial motivation, as it can contribute to the organization's financial benefit through the creation of a more favourable position towards the advertisers.
>Redirecting visitors to a commercial site (Tandoc Jr et al., 2018) or a fraudulent site (Braun & Eklund, 2019). In such cases, clickbait is orientated towards the direct financial benefit of the clickbait creator.

Professional fraudsters are another group motivated to generate fake news in the digital space. The number of fraudsters engaged in fake news generation has significantly has increased in the Internet era. As in the case of click farms and scammers, the motivation of professional fraudsters is directly oriented towards their financial gain. Kshetri and Voas (2017) proposed an economic formula to calculate the rationale behind fraudsters creating fake news. According to their research, a fraudster will create fake news when the parameters of this formula are met. The sum of the monetary benefits (Mb) and psychological benefits (Pb) from the engagement in fraud involving fake news must override the sum of the direct investment costs (Ic), the opportunity costs of engaging in the creation and management of fake news (O1c), the psychological costs of engaging in fake news–related fraud (Pc) and the costs related to possible arrest and conviction (O2c – opportunity costs of conviction; πarr – probability of arrest; πcon – probability of conviction).

$$\Sigma (Mb + Pb) > \Sigma (Ic + O1c + Pc + (O2c\ \pi arr\ \pi con))$$

Aside from the emergence of new tools and techniques, the development of another important shift is noticeable. The digital era caused "a real revolution in electronic communication, made the Internet a creation functioning in its present form" (Tarabasz, 2013, p. 160). A completely new terminology emerged to describe the new paradigm: "cyberwar", "computer network attack", "electronic warfare", "info-bombs" and "info-warriors" (Taylor, 2013), which constituted the reality of a new era. Further to this, fake news became one of the pillars of this novel warfare paradigm, being an essential part of the winning info-war strategies (Bazan, 2017; Bennett & Livingston, 2023; Selaković, Gallant & Tarabasz, 2021).

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

In addition to the above-mentioned technology-enabled developments of fake news usage, another important aspect is the engagement of software structures such as social bots to share and spread fake news. These are automation software programs, attached to completely or partly controlled social media accounts, which can post messages and send requests to connect on these platforms (Zupanič, 2019). Global availability and development of artificial intelligence (AI) solutions opened new possibilities for generating fake news. AI solutions found their applications in different areas of business and communications, enabling the automated creation of various types of content (Ljepava, 2022). The propulsive development of generative AI happening in the first half of 2023 also created opportunities for the massive creation of fake content that could be spread through social media channels. The most dominant type of fake news content generated by AI tools are deepfakes - hyper-realistic videos created by artificial intelligence to falsely depict individuals taking part in situations that did not happen (Westerlund, 2019).

The usage of fake news to manipulate and deceive the audience has become globally acceptable, while the concept itself got a new dimension. Nowadays, fake news is not only a genre: the term 'fake news', now contextualized as a label, became frequently used by political actors to give negative attribution to the news content that reports unfavourably about them (Bennett & Livingston, 2023; Vosoughi, Roy & Aral, 2018). Moreover, developments related to the COVID-19 pandemic or the Russia-Ukraine conflict indicate the creation of an infodemic – an overabundance of information where some information are accurate and some are not (Zielinski, 2021), with an emergence of fake news spreading all around the world (Scales, Gorman & Jamieson, 2021).

Given all the transformative aspects identified in the available body of literature, the aim of this research is to examine how scientific literature has covered changes in the evolution of fake news, and what changes are noticeable following the deep penetration of the Internet and user-generated content into the general population. For this reason, a systematic literature review has been conducted, followed by highlighting the typology of fake news, highlighting new motivations for fake news creation and presenting the non-human tools for news creation and dissemination. This flow of the research led ultimately to discussion and conclusion on gathered findings.

METHODS

A systematic literature review of scholarly articles published in academic databases from 2016 to 2023 was conducted to identify a recent body of literature dealing with fake news and its transformational aspect. The review included EBSCO, Emerald, ProQuest, Science Direct, Scopus, and Web of Science databases. The search was performed for the idiomatic keyword terms "development of fake news," "fake news development," "transformation of fake news," and "fake news transformation."

The query was performed separately for each keyword term in each scientific database, and the results were manually compiled to extract complete information about

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

the available body of literature. This process yielded an initial pool of 16,093 publications. Table 1 presents a detailed distribution of initially identified articles across databases.

Table 1. **Academic databases used as per the assigned criteria (Authors' own work)**

Database	Criterion description	No, initially identified studies
EBSCO	"Fake news" AND "Development" OR "Transformation"	2,085
Emerald	"Fake news" AND "Development" OR "Transformation"	2,722
ProQuest	"Fake news" AND "Development" OR "Transformation"	9,091
Science Direct	"Fake news" AND "Development" OR "Transformation"	768
Scopus	"Fake news" AND "Development" OR "Transformation"	691
Web of Science	"Fake news" AND "Development" OR "Transformation"	736
Total		**16,093**

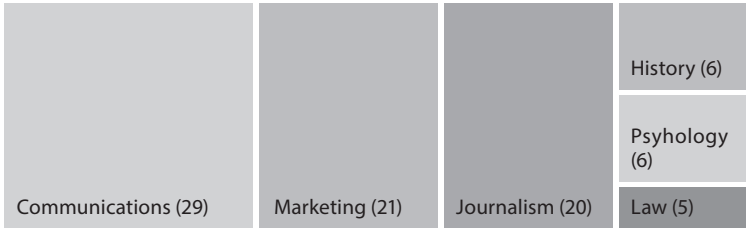
The initial searches were followed by preliminary screening based on the predefined inclusion and exclusion criteria (see Table 2). After identifying relevant scholarly articles based on the first three inclusion criteria, the authors reviewed the sample of articles to identify only those focused on the development and transformation of fake news. This refinement significantly narrowed down the list of resources, and the final dataset included 85 articles relevant to the present study.

Table 2. **Literature analysis: inclusion and exclusion criteria (Authors' own work)**

Criteria	Criterion description
Inclusion	
Scholarly article	Peer-reviewed scholarly conteptual and theoretic articles, dissertations and conference papers listed in academic database
Year of publication	Articles published from 2016 to 2023
Language	Articles published in the English language
Relevance	Closely and partially related articles and research papers focused on the development and transformation of fake news
Exclusion	
Other publications	Books, editorials, commentaries, book reviews, empirical studies
Language	Non-English publications
Relevance	Non-related or loosely related articles, not focused on the nature or transformation of fake news
Duplicates	Articles previously found in other included database

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

Following the identification of the final sample of scholarly articles, the articles were classified for each subgroup under one of the following scientific field categories: communications, marketing, journalism, psychology, history, and law (Graph 1) to determine the scientific fields that study the phenomenon of fake news.



▲*Graph 1.*
Literature sources (N=85)
(Authors' own work)

Content analysis was then employed as a qualitative method to systematically explore and interpret the selected body of literature. The analysis was conducted manually, adhering to the following steps:

Initial coding: In this phase the initial set of codes was created. Considering that the manual analysis was conducted, an inter-coder reliability test was conducted to minimize researcher bias. Two researchers reviewed 20% of the final dataset (17 articles), and completed the coding using the established initial codes. Cohen's Kappa was calculated to measure agreement between the coders, yielding a score of 0.77, indicating that there was a substantial agreement. The discrepancies were resolved through discussion, and the coding criteria were refined according to the final codebook.

Categorization: Upon completion of coding for all included scholarly articles, the codes were grouped into emerging themes and patterns and classified into five categories:

>Fake news transformation
>New forms of fake news
>New motivations for fake news sharing
>New methods for spreading fake news
>New aspects of the application of fake news

Theme validation: These categories were refined iteratively through comparisons across articles, ensuring consistency and alignment with the research questions. The findings were synthesized into the comprehensive results in the final stage of the research.

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

RESULTS

The main topics were analyzed based on a comprehensive review of the identified literature sources. Six areas emerged as indicative of the transformative nature of fake news in the digital era: new types of fake news, new motivations for fake news creation, non-human tools for creating fake news, non-human tools for spreading fake news, application of fake news in info-wars, and instrumentalization of the term 'fake news'. Each one will be discussed in the subsequent parts of this article.

New types of fake news

The literature findings indicate the emergence of new types of fake news in the digital era. Native advertising, hoaxes coupled with fraudulent online ads disseminated through social media, and deepfake videos are examples of the new types of fake news that appeared with the widespread use of the Internet (Cf. Tab. 3).

Native advertising, as described by Kim et al. (2021), Nyilasi (2019) and Tandoc Jr, Lim and Ling (2018), is sponsored messaging that spreads through mass media channels with persuasive intent. Although such activity is advertising-like, it might tend to deceive the audience if done without clear labeling or in association with fraudulent content or hoaxes. Fake news appears to be among the highly effective new technologies with high persuasive power (Vosoughi, Roy & Aral, 2018). Hence, the emergence of malicious native advertising in the context of fake news is unfortunate but expected in the consumeristic context.

Braun and Eklund (2019) recognized combating hoax news coupled with fraudulent ads as a remaining challenge for the stakeholders involved. The use of hoaxes as persuasive storytelling was monetized with the use of programmatic advertising and Search Engine Marketing (Fulgoni, 2016; Malthouse et al., 2018). As the field seems to be not fully investigated, the authors suggest the need to develop the architecture and systemic solutions to combat such a complex form of hoax fraud.

Table 3. **New types of fake news (Authors' own work)**

Description	Source
Native advertising	
Sponsored messaging, spreads through mass media channels with persuasive intent. Likely to deceive the audience by perceiving it as an original message without sponsoring the objective.	Kim et al., 2021; Nyilasi, 2019; Tandoc Jr, Lim and Ling, 2018; Vosoughi, Roy & Aral, 2018
Hoax with fraudulent ad	
Stories were ultimately revealed to have had a persuasive effect on buyers/decision makers. Combined with programmatic advertisement leads to interest generation and further monetization.	Braun & Eklund, 2019; Fulgoni, 2016; Malthause et al., 2018

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

Deepfake	
Hyper-realistic videos that apply artificial intelligence to depict someone saying and doing things that never happened. Usually require a significant amount of datasets for training to be recognized.	Westerlund, 2019; Cozzolino et al., 2021; Korshurov & Marcel, 2021; Yu et al., 2021; Wang & Kim, 2022; Jain, Memon & Togelius, 2022

The third of the highlighted categories are deepfakes. Posted in a digital space, deepfakes are also a novel type of fake news: these are hyper-realistic videos that apply artificial intelligence to depict someone saying and doing things that never happened (Westerlund, 2019). Recognizing and countering deepfake is among the challenges presently occupying the interest of numerous researchers (Cozzolino et al., 2021; Korshunov & Marcel, 2021; Yu et al., 2021; Wang & Kim, 2022). A study of the literature sources indicates that deepfake, as an emerging type of fake news, might be classified as fabricated content in the typology of fake news (Cf. Tab. 4, created by Selaković, Tarabasz and Gallant, 2020).

Table 4. **Typology of fake news (Selaković, Tarabasz & Gallant, 2020)**

Type of fake news						
	High	Low	High	Low	Direct	Indirect
False connection	-	+	+	-	-	+
Misleading content	+	-	+	-	-	+
False contex	+	-	+	-	+	+
Imposter content	-	+	-	+	-	+
Manipulated content	+	-	+	-	+	+
Fabricated content	-	+	+	-	+	+
News satire	+	-	-	+	-	+
News parody	-	+	-	+	-	+

The typology presented above categorizes existing fake news into eight types of fake news and three axes to be considered: level of the facticity, intention to deceive, and financial motivation. It provides, therefore, a total of 48 categories, where each of the fake news could be classified.

New motivations for fake news creation

Beyond any doubt, the primary motivation for creating fake news is to mislead the audience. Although any type of fake news has the potential to deceive an audience, and even though summarizing the motivations of content creators might be sometimes challenging to understand (Lambert, Ewing & Withers, 2018), some key elements can be identified and differentiated based on the available literature sources. As concluded by Tandoc Jr. et al. (2018), mainly financial and ideological factors stand behind fake news creation. These antecedents are elaborated on in detail by Selaković, Tarabasz and Gallant

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

(2020) to understand the nature of a new typology of fake news. Similarly, Verstraete et al. (2017) classified fake news based on the financial or non-financial payoff awarded to the creator. Social interaction is also mentioned by Albright (2017) as an important element in the fake news debate.

However, according to the available body of literature, it can be concluded that, in communications in the Internet era, six key motivational sub-factors lead to the generation of fake news:

>Impacting public opinion favourably
>Impacting public opinion unfavourably for the political or economic competitor
>Attention-seeking/influencing
>Clickbait/traffic-generation
>Profit-seeking/fraud
>Profit-seeking/scams and click farms.

In political communication, the motivation to create fake news relates to multiple factors, mostly associated with ideological motivations. In the area of business communication, the key reason for creating fake news is similar to the ideological reasoning seen in political communication, i.e., to impact public opinion on behalf of a person or organization on a given topic (Sanders & Jones, 2018). The argument that a positive perception of an organization or brand positively impacts business operations is well-known and has been discussed in detail even in the digital context (Gajanova et al., 2019). Hence, from the business perspective, fake news creation might be considered indirectly connected to profit and not only to reputation or business development. In addition, fake news can help to boost a company's stock price and asset value (Laouiti et al., 2016). In the conflict area, the use of fake news as a motivational/demotivational factor remained contextualized in the same way as before the digital era. However, new channels for the dissemination of fake news emerged (Selaković, Gallant & Tarabasz, 2021). Subsequent part of the article will be a consideration of the paradigm shift towards digitally-enabled new ways of creation and dissemination of both misinformation and intentionally created false news.

Non-human tools for creating fake news

The development, emergence, and global availability of technology-enabled solutions significantly facilitated the development of new tools for fake news creation. Nowadays, fake content, both textual and visual, can be generated easily by different digital solutions without human assistance. From the perspective of visual fake content photos and videos, artificial intelligence (AI) and advanced image- and video-processing solutions enabled a plethora of manipulative techniques, using images of a target person and embedding them onto a photo or video of a source person (Nguyen et al., Westerlund, 2019). The tabulated juxtaposition of new categories of non-human created fake news created by software or AI solutions (Cf. Tab.5) includes the following:

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

Table 5. **New non-human tools for fake news (Authors' own work)**

Description	Source
Faceswarp	
Superimposition of face images into photos or videos leading to content forgery.	Kohli & Gupta, 2022; Nguyen et al., 2019; Kohli & Gupta, 2021
Lip-sync	
Modification of mouth movement to follow the previously provided audio recording. Visual computing and deep learning to alter the lip and mouth articulations of the actor to sync with the dubbed speech.	Patel et al., 2023; Abdelmessih & Abuelsoud, 2020; Nguyen et al., 2019
Puppet-master	
Includes videos of a target person, named puppet, who is animated in the way to follow the facial expressions, eye and head movements of another person, named master, who is sitting in front of the camera or provides recording.	Nguyen et al., 2019; Jones, 2019; Gómez-de-Ágreda, Feijóo & Salazar-García, 2021

Large generative artificial intelligence models, such as ChatGPT, Cohesive AI, GhostWryter, SimplifiedAI, Suggesty AI, BearlyAI, Engage AI, Trust, Astria AI, BHuman, opened the space for the massive creation of textual and visual fake news. Current solutions already have the capacity to bring fake news, manipulation, and other non-ethical ways of use to an entirely new level (Hacker, Engel & Maurer, 2023). This opens numerous dilemmas and challenges for the future, such as regulatory aspects, ethical doubts, and detection and countering issues (De Angelis et al., 2023; Hacker, Engel & Maurer, 2023; Pegoraro et al., 2023).

Non-human tools for spreading fake news

Unlike in other periods of history, when fake news was shared exclusively by humans, new, non-human technologies used for disseminating fake news have emerged in the Internet era. Social bots (Zupanic, 2019) arose as an effective tool for sharing fake news and can be deemed responsible for most of the false information that is spread on social media platforms. Their objective is to amplify the spread of fake news by creating a false buzz. Users of social media are susceptible to this type of deceit and reshare such posts without realizing that they are sharing false news (Shao et al., 2018; Selaković, Gallant & Tarabasz, 2021; Wang, Angarita & Renna, 2018).

The significance of non-human tools for spreading fake news has been identified by several researchers. Nyilasi (2019) argued that out of all active Twitter accounts 9–15% are bots, while, in the pre-COVID period, there may be as many as 60 million bots on Facebook. Zhang et al. (2022) identified the engagement of social bots in COVID-19 vaccine-related conversations on Twitter, demonstrating the emerging power and relevance of non-humans in the digital world.

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

Application of fake news into info-wars

The combination of non-human tools for the creation and dissemination of fake news seems to be an explosive blend, leading to conflict aggravation. Fake news has historically been part of info-wars. However, with the emergence of the Internet and social media, the importance of fake news in the context of information warfare emerged. Bazan (2017) rightly claims that fake news became a critical aspect of information warfare.

The literature sources indicate usage of the novel channels to disseminate fake news to create an advantage in information warfare. Social media and websites became a polygon for placing fake news. Dehghan and Glazunova (2021) identified the usage of fake news in warfare in the context of the Russian-Ukrainian conflict. Maronkova (2021) and Molder et al. (2021) embedded fake news production and dissemination into the strategies used in hybrid and knowledge warfare in the digital era. This aspect is especially important, as the number of available media channels increased with the emergence of the Internet. The rapid expansion in the pace of communication and the need for immediacy in the context of information led to a strong spillover effect between mainstream and digital media. Consequently, the presence of fake news has become more visible and fake news posted online is becoming the source of the news spread throughout mainstream media (Selaković, Gallant & Tarabasz, 2021).

Instrumentalization of the term 'fake news'

The term 'fake news', observed from the semantic perspective, got a novel context in recent years: nowadays, fake news is used in political communication as a label to delegitimize credible mainstream media or unfavorable content (Bennett & Livingston, 2023; Selaković, Gallant & Tarabasz, 2021). In the Internet era, the term 'fake news' should be considered a two-dimensional phenomenon, including both fake news as a genre and fake news as a label (Egelhofer & Lecheler, 2019). Even fake news as a genre got novel contextualization by clear definition of its nature and boundaries, and by clear differentiation from misinformation and other forms of disinformation (HLEG, 2018). However, use of fake news as a label is still everpresent and explicitely visible in political communication, investor communication, and financial communication (Ekman & Widholm, 2024; Farhall et al., 2019; Molina et al., 2021; Selaković, 2022).

The authors suggest a number of measures to prevent this paradigmatic change to become constant. Egelhofer and Lecheler (2019) discussed the need to put a strict limitation on the use of the term 'fake news', to avoid the use of the label 'fake news' as a political instrument. At the same time, the vulnerability of Internet users and the ease of online deceptions and manipulations creates significant room for misperceptions associated with fake news spread. Thus, systemic approach to countering fake news has become a necessity (Kirby, Valaskova, Kolencik & Kubala, 2018; Selaković, Gallant & Tarabasz, 2021). Numerous mechanisms for countering fake news are incorporated into official action plans, documents, and regulatory acts: a notable example is the European Union, where countering disinformation, including fake news, is an important pillar of building and developing more resilient democratic societies (Grbeša Zenzerović & Nenadić, 2022).

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

CONCLUSION

The findings of the research clearly indicate multiple transformations of fake news in the digital era. All five described areas of transformation of fake news, identified within this research, show one common characteristic: technology is a major enabler for fake news creation and dissemination. The Internet and social media are platforms that are broadly exploited for spreading, deployment, and development of novel types of fake news.

Our systematic review of the literature sources indicates the tendency of fake news to continue the transformation and further grow and emerge in the post-COVID period. The new structures, such as social bots, are becoming more and more present in the digital space. With the advancement of Artificial Intelligence and machine learning, social bots have the power to engage in conversation and contribute even more effectively to spreading fake news online. Moreover, AI and advanced image and video processing solutions have the power to enable a massive creation of fake news without human assistance.

As the Internet became a zone of intense business and high profit, financial motivation for the creation of fake news stepped into a new dimension. The power of false information coupled with growing consumerism leads to the emergence of new motivations, fostering the emergence of novel complex fake news structures, such as hoaxes associated with fraudulent ads. At the same time, novel types of fake news, such as native advertising or deepfake, are developing quickly and, therefore, remain difficult for prompt detection and effective countering. In addition, the use of fake news, and especially deepfake, in the context of hybrid warfare needs to be investigated further. With the fast-paced development of technology, other novel, sophisticated and complex types of fake news may emerge in the future. Moreover, based on their studies, many researchers have shown the need for systematic identification, creation and update of the existing tools to verify the fake nature of the spreading news.

The paradigmatic transformation of fake news and its excessive use as a warfare tool indicates that the term 'fake news', in different forms, is highly likely to continue its existence in the forthcoming period. Technology enables development, but at the same time, blurs the line between truth and falsity. With all the boundaries of this research, such as a limited base of literature sources, human/researcher biases and other restrictions resulting from the assumed methodology, it can be concluded that fake news is likely to grow in the future at an exponential scale. Recent tendencies demonstrated during the COVID pandemic and the Russia-Ukraine conflict, as identified in the body of literature, indicate that fake news will become more sophisticated and more difficult to detect and counter. The emergence of new AI solutions, digital channels and deep social platforms provides a clear perspective upon the further development of fake news: it is already predominantly digital and is likely to be more digital in the future. Thus, combating and countering fake news is one of the civilizational challenges for the future. This action needs to be systematic and institutionalized. Resolving the challenge of the overwhelming presence and fast-paced development of fake news will be a real test of the strength

SCIENTIFIC REVIEW ARTICLE / DOI: 10.20901/ms.15.30.6 / SUBMITTED: 27.11.2023.

of institutions and governments across the globe. Future research scope will show the pathways for countering fake news in the digital space and pave the way for how to deal with it in an effective manner.

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EVOLUCIJA DEZINFORMACIJA: ANALIZA DIGITALNE TRANSFORMACIJE LAŽNIH VIJESTI

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SAŽETAK *Lažne vijesti, koje se šire tradicionalnim i* online *kanalima, imaju moć oblikovanja odnosno utjecanja na javno mnijenje. U eri interneta nove tehnologije omogućile su i stvaranje i širenje sve veće količine lažnog sadržaja. Stoga, imajući na umu promjenjiv krajolik dezinformacija, cilj ovog istraživanja jest ispitati kako znanstvena literatura tretira promjene u razvoju lažnih vijesti te koje su promjene primjetne nakon dubokog prodora interneta i sadržaja koji generiraju korisnici u opću populaciju. Od 16 093 proučena rada navedena u bazama podataka EBSCO, Emerald, ProQuest, Science Direct, Scopus i Web of Science, sustavnim pregledom literature identificirano je 85 relevantnih izvora povezanih s lažnim vijestima objavljenima u područjima komunikacija, marketinga, novinarstva, psihologije, povijesti i prava. Provedeno istraživanje daje cjelovit pregled transformacije lažnih vijesti u digitalnom dobu. Primjetna je pojava novih oblika i vrsta digitalnih lažnih vijesti. Štoviše, studija pokazuje da se promijenio način dijeljenja i širenja lažnih vijesti, uvođenjem automatizacije i rješenja temeljenih na umjetnoj inteligenciji sposobnih za stvaranje i dijeljenje lažnog sadržaja. Nadalje, izraz „lažne vijesti" transformirao se iz jednoznačnoga semantičkog pojma u dvodimenzionalni fenomen, obuhvaćajući lažne vijesti kao pojavu i lažne vijesti kao oznaku. Na kraju su analizirane i dodatne dimenzije korištenja lažnih vijesti u novom kontekstu omogućenom internetom – lažne vijesti kao ključni stup strategija inforatova.*

KLJUČNE RIJEČI

LAŽNE VIJESTI, DIGITALNA TRANSFORMACIJA, KOMUNIKACIJA, UPRAVLJANJE KRIZAMA, KRIZNA KOMUNIKACIJA, DEZINFORMACIJE

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