

MEDIA CONTENT IN THE AGE OF ARTIFICIAL INTELLIGENCE (AI)

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Abstract

Digitalization has significantly influenced the challenges facing the media industry. The very process of media transformations "is no longer a technical need, but is already a social reflection and need, a need for communication, a need for solving political and technological problems in the society of this time" (Bebić & Volarević, 2016). Therefore, the attention of users is increasingly difficult to capture, thanks to the diversity of media publications, and in this sense traditional media often fail to respond to specific audience demands (Trattner, et al., 2022). Today, users are exposed to a large amount of information on a daily basis, their content is increasing, so media content cannot be imposed on users, but they choose only what they are interested in for consumption. However, traditional electronic media have understood the importance of the new multidimensional environment, therefore they are using a multiplatform through the Internet that use digital technology both to place the content and to personalize the offers against the user (Ćitić, 2020).

Keywords: media, artificial intelligence, digital age, digital society.

1. Introduction

Online sources and social media have become the main source of information for users today, while the smartphone is the dominant device for accessing media content (Newman, Fletcher, Eddy, Robertson, & Kleis Nielsen, Reuters Institute Digital News Report 2022, 2022). Smart phones and social media have increased individualization (Goggin, 2011), therefore media companies must "present engaging individual experiences for each consumer in the context of the event, in real time and in continuous time" (Chan-Olmsted, 2019, p. 5). So, if they want to attract audiences and users to their platforms, the media must adapt and create content that matches the personal and individual requirements of the audience.

In addition to user requirements, the media industry today must also respond to the challenges of artificial intelligence. Trattner et al. (2022) emphasize in their research that artificial intelligence has contributed to the development of new opportunities for improvement in the information media, but also present new risks such as the development of one-sided information or even the spread of misinformation. Considering that artificial intelligence in the context of media and the creation of media content is increasingly of interest to scientists, in the Balkan countries in general there are not many studies in this sphere.

Sadik and colleagues (2021) consider that artificial intelligence has a very large impact on the media market as well. Artificial Intelligence is already creating media content, while media industries are developing advanced technologies that increasingly bring humans closer to "software" (Wang & Liu, 2021).

In accordance with the social circumstances in which the media work, scientific research and scientific findings are often challenging in the field of Artificial Intelligence. Namely, scientists and media industry workers need to improve and expand their knowledge to be able to correctly use the available technological tools in the creation of media content. So the focus should be on "focusing the Audience by experimenting with personalized products that enables the development of the competencies and knowledge needed to integrate Artificial Intelligence into

existing systems and processes" (Chan-Olmsted, 2019, p. 19). The implementation of artificial intelligence leads to the maximum diversification of available media products (Trattner, et al., 2022), with the gradual robotization of the production process and media content (Wang & Liu, 2021).

Although there is also a fear of the development of Artificial Intelligence and the spread of its applications among parts of the public, it is important that media and communication experts should consider the ways in which technologies can improve their work and help them improve their performance. This is very relevant in the context of rapid and continuous changes in the field of technology that also shape the media industry. In this regard, it is important to recognize that artificial intelligence technologies do not pose a threat to journalists and the media industry, but represent media innovation and higher efficiency.

2. Body of Manuscript

In his research, Ćitić (2020) deals with artificial intelligence in the context of traditional electronic media such as radio and television. The news production process is the underlying theme, namely content creation, investigative news, feedback and the role or influence of news on the audience. Existing Artificial Intelligence technologies can be integrated at different stages of the news production (creation) process. In addition, Artificial Intelligence enables the shaping of comments, checking the facts and verifying the content (Sančanin & Penjišević, 2022).

For all the stages through which a news passes, there are different artificial intelligence tools depending on the area of news production according to which the news is attempted to be more effective. Artificial intelligence provides opportunities to find topics, suggests algorithms for selecting the best topic, enables the search for fake news and the source of fake news. Although there are various dilemmas regarding the use of artificial intelligence for the creation of media content, one should be familiar with the qualities of using this approach enabled by artificial intelligence. This in particular in today's modern times refers to the use of digital tools to identify the sources of fake news, so as to enable journalists to be alerted to any possible misinformation. If it comes to media managers, the advantages for the implementation of AI technology lie in the process of creating media content. In addition to what type of information the audience is exposed to, journalists also provide a large amount of information that needs to be checked and verified.

In addition, Artificial Intelligence technology is used for news production, various tools for recommendations, comment moderation, audience interaction, facial recognition, analysis of other image elements, and faster retrieval and use of media content from the archive (Ćitić, 2020). Listed in this way, the actions used in the production of media content are positive and Artificial Intelligence is used in its positive way. Wang (2021) consider that the changes dictated by Artificial Intelligence tools in the creation of media content contribute to increasing efficiency. Artificial intelligence technologies and programs allow journalists to focus and encourage themselves towards creativity, while parallel technologies only enable content creation. All the mentioned possibilities of artificial intelligence in fact represent tools that go in the direction of encouraging efficiency, but they often result in ethical problems.

With the help of artificial intelligence technology, instead of journalists composing a sentence themselves, it is done by machines, which are also pre-made by journalists.

Artificial intelligence already plays an important role in social, entertainment and sports news and professional fields such as in the division of labor, media product content and publication review (Wang & Liu, 2021)

In the literature, the application of artificial intelligence in journalism is also called automated journalism or robotic journalism (Sančanin & Penjišević, 2022). Sančanin and Penjišević (2022) explain in their research that there is a lack of use of artificial intelligence in journalism due to the fear that journalists may lose their jobs, but the reason may also be the ease of compilation and spreading fake news. Although these are some negative sides of the use of artificial intelligence, it is important to look at this development in the positive prism that recognizes artificial intelligence as a tool to facilitate work, accelerate the realization of the idea and prevent the spread of fake news. According to this, the benefits of artificial intelligence in the creation of journalistic content are manifested in the ease of data analysis, monster recognition and tendencies to transform data from text to speech or from text and sound to video format (Sančanin & Penjišević, 2022). 21).

Thanks to artificial intelligence, the transformation of media information transmission methods has also taken place. Artificial technology tools allow journalists to create different customized formats and specific "online" platforms that are preferred by the target audience. Therefore, in journalism, artificial intelligence can free journalists from their daily tasks, to provide information, analyze data or speed up reporting (Wang & Liu, 2021). Therefore, Wang and colleagues (2021) emphasize that special attention should be paid to artificial intelligence applications in live reporting of important events. This is also because the human being (individual) must be at the center of all journalistic processes (Sančanin & Penjišević, 2022).

Scientists and authors of modern times emphasize that artificial intelligence indisputably plays a role in enriching and accelerating the processes of journalism, communication and affecting the entire public space. Journalists now have the opportunity to devote more time to journalistic creativity, or deep data analysis. In addition, artificial intelligence provides them with the possibility of faster verification of the source of information, which is necessary in the fight against the publication and distribution of disinformation. At the same time, it is necessary to pay special attention and prudence in the application of artificial intelligence to media content when it comes to reporting on major events and when the protection of ethics and morality is in question. In this view, it is quite important to analyze what is the human role in shaping information and maintaining journalistic integrity in the content of the media product, even in modern times when artificial intelligence has become an indispensable part of creating media content. The role of artificial intelligence in the creation of media content means a balance between the human and the technology. Therefore, the tools of artificial intelligence both for improving media content and for ethical and moral components are still in the hands of people (journalists).

After the analysis, synthesis and interpretation in literature, dealing with artificial intelligence as well as journalistic content, it has been concluded that even today there are no important scientific researches, both qualitative and quantitative, that have been done with this topic. Therefore, the contemporary time requires more encouragement in terms of research in terms of what is called conventional (mainstream) journalism and the use of artificial intelligence in the creation of media content. Of course, the process would be to discover the tools that conventional (ordinary) journalists use, how information is consumed, or how artificial intelligence affects the ease or difficulty of work, what obstacles are faced, and how much people are educated in using of artificial intelligence.

Artificial intelligence has today also integrated all the work of social networks which are widely used today (Sadiku, Ashaolu, Ajayi-Majebi, & Musa, 2021). The development of technique and technology has influenced the progress of social networks, and artificial intelligence is advancing this development (Satpathy & Patnaik, 2021). Amato(2019) assert that the technology of artificial intelligence has already "revolutionized the way in which the content of social networks is indexed, by means of artificial intelligence subjects are searched and by means of it the face or visual actions (photos and videos) are recognized and the texts are

discovered through their contents and the opinion of public opinion is also researched". Therefore, the inclusion of artificial intelligence in the work of social networks is not a news (innovation), but for the last few years it is a well-known phenomenon when it comes to the creation of media content. On digital platforms, artificial intelligence performs tasks that include content creation, content management, text analysis, image analysis, spam detection, social intelligence, advertising and data collection, social media management, tracking contests, customer analysis, competition analysis, etc. (Sadiku, Ashaolu, Ajayi-Majebi, & Musa, 2021). In addition, social media platforms also play a role in the ways of creating social network content and the trends dictated by technological progress (Mishra, 2022). Based on the analysis of previous research, Al-Ghamdi (2021) concludes that artificial intelligence has a great impact on the work of social networks.

Numerous research studies clearly show that artificial intelligence has a significant impact on digital platforms. Artificial intelligence tools are shaping the way media content is created, but also the management and consumption of that content by users. More precisely, artificial intelligence technologies directly and indirectly enable the creation of media content.

In creating social media content, users are increasingly using data generation from artificial intelligence. This is where artificial intelligence enables the conversion of text to picture, image to video and image to picture.

In addition, artificial intelligence technology uses algorithms that create unique content such as text, video, photo and music (Darbinyan, 2023). Also, generative artificial intelligence is increasingly being used to create "hashtags" (Gillis, 2023). According to Liang (2020), artificial intelligence enables simple processing of photographs that are integrated into different "software". Artificial intelligence in smart mobile devices is applied to the process of taking photos and videos by directly optimizing portraits, plants, blue sky, pets, food, etc., in principle with public aesthetic standards " (Liang, 2020, p. 123).In addition, AI makes it possible to convert photos from black and white to color photos, restore old photos, increase resolution, and the like, creating a complete distinctiveness with media content (Liang, 2020). Speaking of photos, AI tools have the ability to create artistic photos.In addition, AI has an important role in creating video content (Liang, 2020).

Creating content on social networks using artificial intelligence has both positive and negative sides. Accordingly, the advantages of using such tools are reflected in the possibility of restoring old photos, increasing the resolution, optimizing the photo, etc. So artificial intelligence tools serve as a companion tool for improving social media content. But by using artificial intelligence, the generated material can mislead the audience and distort the true real footage. Generation by means of artificial intelligence in the case of creating content such as image, video and sound can serve the content users of social networks as ideas or inspiration for personal materialization. The development of artificial intelligence is fast and it is difficult to monitor and test all the platforms that currently exist and are available in the media market. But, Darbinyan (2023) lists some of the most popular tools used to create content on social networks:

1. Lately - works in such a way that it constantly "learns" from past posts, generating effectiveness in the content of a given user's social network. ChatGPT – chatbot technology that is based on the understanding of natural language and generates human responses in the form of conversations.
2. ChatGPT – chatbot technology that starts with natural language understanding and generates (turns) human responses in the context of the conversation.
3. DALL-E, Midjourney of Stable Diffusion – is the artificial intelligence model that converts text and image into visual content creation. This principle is based on the creation of algorithms, so that the machine creates images from text descriptions or generates new variations of existing images.
4. Lensa AI - application that generates realistic images based on content and creates

stylized "avatars" With the help of artificial intelligence, influencers in the field of marketing are becoming more and more efficient. That is, thanks to the tools of artificial intelligence and especially natural language processing, a detailed overview of the influencers is provided and aligns them with the goals of the brand (firm) (Darbinyan, 2023). This is also one of the advantages of artificial intelligence when it comes to creating social media content for a particular company or brand. Today it is difficult to count and detect all influencers in the market, and in this aspect artificial intelligence accelerates the process of finding the ideals that lead those creators (influencers) to present certain media content. Of course, communication and public relations experts do this study on the basis of the results obtained, but in this case artificial intelligence can be observed from the most advanced perspectives and "search engines" available on the Internet. According to studies, one of the advantages of artificial intelligence is certainly the possibility of recommending "online" contents.

As we live in an era of personalization and individualization of content, artificial intelligence tools recommend content based on our previous media consumption experience. Although this opportunity is not directly related to the creation of media content, it contributes to the development of social networks and the encouragement of content creators to create quality materials that the artificial intelligence will then suggest to others.

Another possibility that is indirectly related to the creation of media content is the "bots" function that works using artificial intelligence. This means that "bots" completely process the data and filter it based on content that may violate the guidelines and norms of communication, or may be inappropriate content (Gillis, 2023). In this way, inappropriate content is automatically detected and deleted (disappeared). This function also contributes significantly to the fight against false information, which is very often spread in the content of social networking platforms.

It is important to note that the literature raises ethical questions in the use of artificial intelligence in social media. For example, the study of Liu and colleagues (2021) shows an ethical compliance with the principles in cases of using artificial intelligence technologies by focusing on the interest of the consumer. More specifically, efforts for a responsive application of artificial intelligence are being developed in the direction of aligning individual needs with consumer needs and demands. If artificial intelligence technologies are to be used responsibly, it is necessary to follow the principles of fairness, inclusion, reliability, security, transparency, privacy, utility, harmlessness and autonomy. The special one among these principles is the principle of privacy, considering that innovations also bring special and new challenges (Liu, Gupta, & Patel, 2021).

Ethical dilemmas in the use of artificial intelligence for the creation of social network content are very present, but nowadays it is difficult to intervene in them through regulations or platforms. If exclusively generated content is published, artificial intelligence declares it and avoids violations and ethical principles. Therefore, artificial intelligence should be seen as an auxiliary tool in the creation of content and not as a unique creator of social network content.

The research future should certainly cover the habits and forms of communication and the experts with cases and professionalism should use artificial intelligence for the creation of social network contents. It is important to determine the tools used by artificial intelligence technology and the detection (location) of positive and negative effects where artificial intelligence exerts its influence on the content of social networks.

3. Table Figures and Equations

Considering the current apparent development of artificial intelligence technologies, this technology is now oriented towards the shaping and production of media content. In addition to providing innovations in the transformation and creation of media content, artificial intelligence technology follows changes and innovations in the distribution and consumption of information.

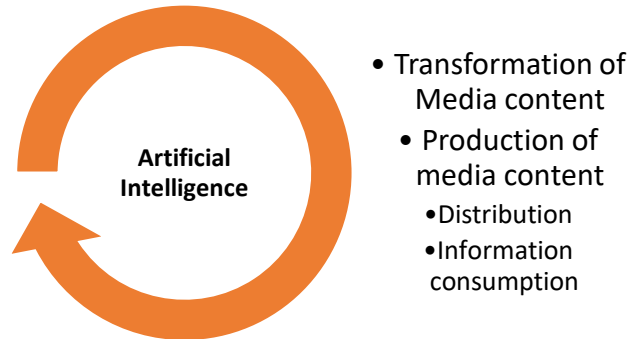


Figure 1. Artificial Intelligence innovations in media communication

According to Citic (2020), the "News Whip" software is one of the appropriate tools for information research, which enables the selection and analysis of information. When creating content, algorithms with the help of artificial intelligence, it enables the automation of writing, translates, transcribes, edits videos, summarizes similar information, visualizes the way of "online" research and enables the use of archives.

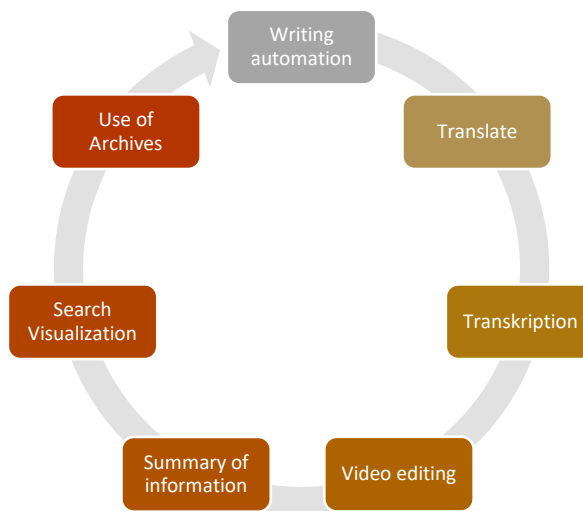


Figure 2. Components and opportunities of Artificial Intelligence in the creation of media content

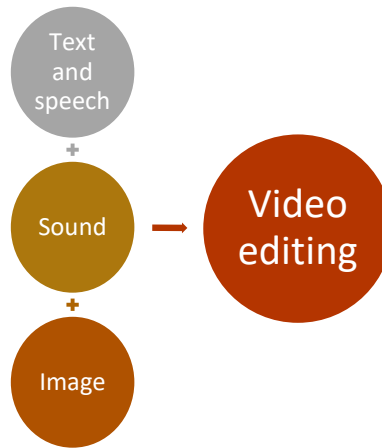


Figure 3. Artificial intelligence enables automatic merging of text, speech, sound and photography

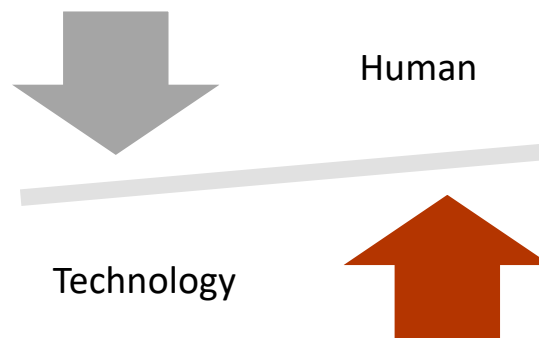


Figure 4. Artificial intelligence plays a role in maintaining the balance between human and technology

AI tasks in the digital platform	Content creation
	Content management
	Text analysis
	Image analysis
	Spam detection
	Social knowledge
	Ads
	Data collection
	Social media management
	Following the competition
	Customer analysis
	Competitive analysis

Figure 5. Artificial Intelligence tasks in the digital platform

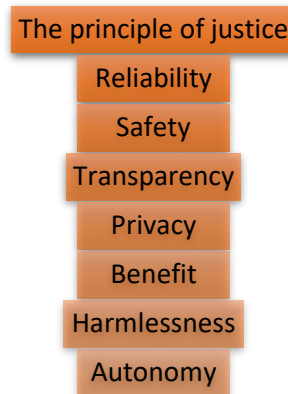


Figure 6. Ethical principles of artificial intelligence

4. Conclusions

- Smart phones and social media have increased individualization .
- Artificial Intelligence is already creating media content, while media industries are developing advanced technologies that increasingly bring humans closer to "software".
- Although there are various dilemmas regarding the use of artificial intelligence for the creation of media content, one should be familiar with the qualities of using this approach enabled by artificial intelligence.
- Artificial intelligence already plays an important role in social, entertainment and sports news and professional fields such as in the division of labor, media product content and publication review.
- Creating content on social networks using artificial intelligence has both positive and negative sides

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