Assoc. Prof. PhDr. Slavka Pitoňáková, PhD.
University of Žilina
Faculty of Humanities
University 8215/1
Žilina, 010 26, Slovak Republic
slavka.pitonakova@fhv.uniza.sk
ORCID ID: 0000-0003-2116-1906

Slavka Pitoňáková's work focuses on connecting the media with selected areas of marketing communication (especially public relations and advertising), as well as on the presentation of cultural heritage, science, and research in the media. She worked on the project Research Center of the University of Žilina where she coordinated public relations. She was a member of the working group for the preparation of the Concept of Media Education in the Context of Lifelong Learning (The Ministry of Culture of the Slovak Republic, 2009). Her focus in the field of pedagogical work is on combining theory with media and marketing practice, as well as on media and film education.

Ing. Dávid Pál
University of Žilina
Faculty of Humanities
University 8215/1
Žilina, 010 26, Slovak Republic
david.pal@fhv.uniza.sk
ORCID ID: 0009-0002-5039-8064

Dávid Pál specialises in multimedia technologies, graphic design, and audiovisual production. He has worked in the presentation of history and cultural heritage at the Museum of Toys and Dolls in Modrý Kamen. Since 2024, he has been a full-time PhD student at the Faculty of Humanities, UNIZA, focusing on artificial intelligence research and its applications in media production. His teaching activities include audiovisual creation, computer animation, 3D modelling, and interactive media programming.

Mgr. Matúš Kubala
University of Žilina
Faculty of Humanities
University 8215/1
Žilina, 010 26, Slovak Republic
matus.kubala@fhv.uniza.sk
ORCID ID: 0009-0006-5448-2852

Matúš Kubala specialises in marketing, PR, digital communication, and visual creation in an academic environment. He served as the head of the department at the UNIZA University Library and participated in the European Commission project (Europe Direct Žilina). Since 2024, he has been a PhD student at the Faculty of Humanities, UNIZA, focusing on cultural heritage in media products. His teaching activities include media production, creative writing, typography, and practical orthography.

TECHNOLOGY AND CREATIVITY: HOW AI IS CHANGING WORK IN THE MEDIA INDUSTRY

Slavka PITOŇÁKOVÁ – Dávid PÁL – Matúš KUBALA

ABSTRACT:
The digital transformation of the media industry brings new challenges and opportunities, with AI becoming an integral part of the creative, analytical and distribution processes. This article explores how AI is shaping the media industry, particularly in the context of supporting creative work, automation and personalisation of content, as well as precision targeting in marketing and political communications. It analyses the historical development of AI in media, its current applications and trends, focusing on cases where AI is complementing human creativity rather than replacing it. Particular attention is paid to the analytical use of AI in the media, to the personalisation of content, automation of news reporting, and to the use of AI in marketing strategies. The article also discusses ethical and legal issues, in particular the issue of trustworthiness of AI-generated content, regulation of misinformation, and copyright protection. Methodologically, the article uses the method of qualitative synthesis and brief case studies in order to describe specific applications of AI in various segments of media production and distribution. The article also provides predictions for the future development of AI in media, respecting the highly dynamic nature of this technology, which naturally implies that certain findings may already be partially surpassed by the time of the publication of the study.

KEYWORDS:
AI analytics, artificial intelligence, content personalisation, ethics, media automation, media industry

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1 Introduction

As a result of digitalisation and technological advances, the media industry is undergoing dynamic changes. AI is increasingly being used in content creation, creative process automation, data analysis and in media personalisation. While in the past media products were solely the result of human activity, at present, AI can generate text, edit videos, produce music and analyse audience behaviour with unprecedented accuracy and speed. AI also plays an important role in cultural heritage preservation, automated audio content processing, and in media archiving (Bosi et al., 2024).

The main aim of this article is to explore the role of AI in the creative processes of the media industry, focusing on how AI complements, supports and expands human creativity, instead of replacing it. In addition, the article also explores the automation of media formats and personalised communication that enables targeted advertising campaigns, content microsegmentation, and predictive analysis of audience behaviour. These technologies are also increasingly used in political marketing, where AI models enable more precise targeting of messages to specific segments of voters, thereby influencing their decision-making (Čábyová & Javořík, 2024).

AI is also increasingly being used in political communication, as it can tailor the content to voters based on their digital preferences. This trend brings new challenges in the currently debated area of media credibility, as AI can be used not only to target political messages, but also to spread misinformation or deepfake content (Fašiang & Gežík, 2024). Liu et al. (2024) point out that AI models are becoming increasingly sophisticated and are finding widespread application in automated generation of audio content, including voice synthesis, sound effects and background music creation for movies, games and podcasts. Similarly, Moliner and Välimäki highlight the ability of AI to reconstruct audio recordings, noting that "the results of a formal blind listening test show that real gramophone recordings denoised with this method having significantly better quality than the baseline methods" (Moliner & Välimäki, 2022, p. 841).

The study focuses on several key questions:

- How is AI changing media content production and influencing creative processes?
- What are the main applications of AI in media production, marketing and political communication?
- What are the ethical and legal challenges associated with the use of AI in the media, particularly in relation to copyright, transparency and misinformation?
- What future trends can be expected in relation to AI in the media industry?

These questions are addressed through a literature review and case studies focusing on current trends in AI and media. From a methodological perspective, this is a systematic literature review and a compilation of short case studies, which aims to examine specific applications of AI in various segments of media production and distribution. The following sections partially describe the historical development of AI in media, its current applications, case studies of its use, and the ethical issues raised by its deployment in creative fields.

2 Development and Current Trends of AI in Media

The use of AI in the media industry has undergone a fundamental evolution, with its applications now expanding from automated content production to predictive analytics and historical media restoration. AI is changing the way media is created, distributed and consumed, with its role constantly expanding due to advances in machine learning and neural networks. As Liu et al. (2024) point out, AI is increasingly being used in the creative industries through generative models that enable the production of audio and multimedia content.

AI in the Media – From Machine Translation to Generative Models

The first applications of AI in media appeared in the 1950s and 1960s, focusing on automated text processing and machine translation. These technologies were the basis for the later development of language models and automated text editing systems. In the 1980s, digital audio processing technologies were developed, which allowed for noise removal and improvement of the quality of audio recordings. At present, modern AI models can reconstruct historical audio recordings with high accuracy, opening up new possibilities for audiovisual production. (Moliner & Välimäki, 2022).

In the 1990s and early 2000s, machine learning began to be widely used, enabling the development of sophisticated recommendation algorithms used in streaming services. AI also began to be applied in the field of

automatic text generation and media data analysis, opening up new possibilities in content automation and predictive analytics. Grupač et al. analyse the impact of generative AI on visual literacy, highlighting "the ability of future professionals in the cultural and creative industries to distinguish between content generated by artificial intelligence and content created by human users" (Grupač et al., 2024, p. 107).

The latest wave of advances in AI focuses on generative neural network models that enable the creation of realistic multimedia content. Bosi et al. (2024) describe the use of AI for archiving and restoring historical audio recordings, fundamentally changing the way media materials are preserved and analysed.

AI as Part of Digitalisation and Virtual Reality

AI cannot be separated from the broader process of digitalisation, which is shaping not only media but also the way people experience everyday life. Digitalisation leads to the gradual virtualisation of physical space and the deepening of the connection between online and offline reality. Moravčíková et al. (2024) analyse the concept of a "hybrid media culture", in which the boundaries between the digital and physical worlds are blurred and where media play a key role in shaping individual identity.

Similar discussions about the impact of new technologies on education have already appeared in the past – e.g., in the 1970s and 1980s, calculators were considered a disruption of traditional educational methods; however, at present, they are a common part of education. A similar process is taking place with AI, which provokes discussions about its suitability in the educational process and the media environment. As Mysechko et al. state, the emergence of AI in the field of open access, similar to the advent of calculators, has fundamentally changed the educational process, as artificial intelligence opens up enormous possibilities for creativity, innovation and increased productivity (Mysechko et al., 2024).

Current AI Trends in the Media Industry

Current development of AI in the media is focused on several key areas:

- Generative AI in audiovisual content – AI models such as DALL·E and Stable Diffusion enable the creation of realistic visual works without the intervention of a human designer. Grupač et al. (2024) analyse the impact of AI-generated meme images on visual literacy and media communication, which points to the growing use of generative models in the creative industry.
- AI in audio production – AI systems enable voice synthesis, automated audio editing, and music generation based on text inputs. Liu et al. (2024) point out that at present, AI models achieve high levels of accuracy in audio content creation.
- Restoration and enhancement of historical media – AI is increasingly being used to reconstruct old films, photographs, and audio recordings. Bosi et al. (2024) describe the use of AI to reconstruct damaged audio recordings and to preserve cultural heritage.
- Personalised content and AI analytics – with the increasing digitalisation of media, content personalisation has become the norm. AI enables more effective audience segmentation and optimisation of media content distribution.

These trends indicate that AI is increasingly becoming an integral part of the media industry, fundamentally changing the way media content is created, distributed, and consumed.

3 Research Methodology

The study applies the qualitative synthesis method, which, according to Drisk "is a diverse set of methods for combining the data or the results of multiple studies on a topic to generate new knowledge, theory and applications. Use of qualitative research synthesis is rapidly expanding across disciplines" (Drisko, 2019, p. 1).

The study uses a systematic literature review as the basis for an overview of relevant knowledge and also a selection of specific examples from the field of media practice in order to provide an overview of the shaping of the media industry through AI. The focus is on the interpretation of the findings to date in the research area and thematic summarisation of data from various sources. Such an approach allows for an overview of academic research, analysis of specific applications of AI and a critical discussion of its benefits and risks.

A systematic literature search focused on peer-reviewed articles and conference proceedings published between 2020 and 2024. The main sources were the academic databases Web of Science (WoS), Scopus, and IEEE Xplore. The following criteria were applied in the literature selection:

- Topics: AI in media, creative production, content automation, ethical challenges.
- Type of publications: Peer-reviewed studies, scholarly articles, and conference papers.
- Relevance: Publications providing an analytical perspective on the application of AI in the media industry and reflecting current trends.

Search queries used included keywords such as "*AI in media," "AI-driven content creation," "AI ethics in journalism.* "Inclusion criteria included timeliness, scientific quality, and relevance to the research topic. Conversely, publications that were not peer-reviewed, did not have a clearly defined methodology, or were not sufficiently relevant to the research topic were excluded.

The article analyses the following specific cases that document specific applications of AI in the media:

- AI in journalism – automated news creation
  - AI is increasingly being used in news reporting for text generation and content analysis. An example is The Washington Post, where the AI system Heliograf automates the writing of short reports (Murár et al., 2024).
- AI in marketing communications – personalised ads
  - AI is a key tool in targeting social media advertising and optimising marketing campaigns. Algorithms enable the audience micro-segmentation and predictive modelling of user behaviour (Čábyová & Javořík, 2024).
- AI in political communication – disinformation and voting behaviour
  - AI is used in political campaigns for personalised messages, but also for the spread of disinformation and manipulation of public opinion. Algorithms can predict voter behaviour and influence political decision-making (Fašiang & Gežík, 2024).
- AI in the creative industry – generation of visual and textual content
  - Generative models, such as DALL·E or ChatGPT, enable the creation of artistic and commercial content. AI is used in digital illustration, graphic design, and automated media production (Mirek-Rogowska et al., 2024).

This summary illustrates how AI supports creative processes, optimises marketing strategies, and influences the dynamics of the media landscape.

Limits

The study relies on academic sources and secondary analysis; therefore, it does not include primary empirical data directly from media companies. In addition, it has the following limitations:

- Geographical limitation – the research focused primarily on European academic sources, while relevant studies from other geographical areas may have been left out.
- Methodological limits of the systematic literature search – the selection of publications may have been influenced by the availability of peer-reviewed studies, thus excluding some practical applications of AI in the commercial sector.
- The risk of interpretative differences – case studies are based on secondary sources, and some conclusions may be influenced by the context of individual research papers.

- These limits suggest the need for further research, including empirical data directly from media companies and comparing AI trends across regions.

4 AI as a Tool to Support Creativity

AI is becoming a key element of creative processes in the media industry. Generative models, such as DALL·E, Stable Diffusion, and AudioLDM 2 provide creators with tools to generate visual and audio content, enabling rapid prototyping, experimentation with forms, or revitalisation of existing works. AI is not only used for content generation, but it is also used as an analytical tool that helps optimise creative processes and improve interaction between media and audiences. Research shows that in academic and media environments, AI is used not only for creation, but also for data analysis, content structuring, and trend prediction (Mysechko et al., 2024).

Generative AI in media:

- Visual content and multimedia
  - One of the main benefits of generative AI is the ability to create realistic visual works based on text descriptions. Grupač et al. (2024) analysed the impacts of these technologies on visual literacy and media communication. The study emphasises that AI supports the creation of multimedia works that are able to reach a wider audience and provide new creative possibilities for creators. However, it also highlights the increasing complexity in recognising AI-generated content, which poses challenges in terms of the authenticity and credibility of media.
- Sound production and music creation
  - Generative AI models such as "AudioLDM 2 enables users to generate high-quality audio content, including environmental sounds, sound effects, and music compositions, based on textual descriptions" (Liu et al., 2024, p. 2875)
  - These models are widely used in creating sound effects for games, movies or advertisements. AI is also used to analyse listeners' music preferences, contributing to greater content personalisation and more efficient distribution of music content on streaming platforms.
- Revitalisation of historical media works
  - An important application of AI is also the revitalisation of historical media. Bosi et al. point out that advanced algorithms allow for the restoration and improvement of the quality of older audio recordings. "AI proves to be an invaluable tool for improving both efficiency and accuracy in the digitisation process, addressing challenges related to the quality of audio preservation and restoration." (Bosi et al., 2024, p. 152546).

AI in Academia and Media

AI supports not only artistic creation, but also analytical processes in the academic and media spheres. Research has shown that the use of AI in the academic environment is increasingly widespread, with "40.5% percent of lecturers using AI for generating ideas, 28.4% for writing texts, 25.7% for creating pictures, 13.5% for making presentations and 2.7% for creating video clips" (Mysechko, 2024, p. 225). Students show similar patterns of using AI, with a significant proportion of respondents using these technologies to support the learning process (Mysechko, 2024).

These findings show that AI serves not only as a tool for creative production, but also as a supporting element in the analysis and structuring of content. In the field of media, it means that AI can be used to adapt content to the audience, automate text editing and predict media trends, which has an impact on the quality of media content and increases pressure on the characteristics of media reality. According to Moravčíková et al., the current media culture is characterised by the synergy of the digital and real worlds, with AI emerging as a key element of this transformation. While in the past the media only reflected reality, at present, they actively participate in shaping it. This process is

particularly visible in the creative component of media production, within which AI helps in the creation of visual content, trend analysis and the generation of personalised media content (Moravčíková et al., 2024).

Philosophical and Ethical Aspects of AI Creativity

Crimaldi and Leonelli (2023) examine the philosophical and ethical issues surrounding the use of AI in the creative process. They point to the debate over whether creativity is exclusively a human domain or whether it can be simulated to some extent by artificial intelligence. They also suggest that further developments in quantum computing could expand the possibilities of AI usage in the field of creativity, which could lead to technological and artistic innovations.

5 Case Studies of AI in the Media Industry

Artificial intelligence has become a powerful tool in media production in recent years, from automated journalism to content personalisation to the generation of visual and audio elements. This review summarises the current knowledge on the use of AI in media, drawing on scientific studies, professional articles and specific case applications. The aim is to critically evaluate the opportunities and challenges associated with the integration of AI into media production.

Revitalisation of Historical Media

One area where AI is being applied is the restoration of historical media recordings. AI technologies allow for noise removal, reconstruction of missing parts of recordings, and enhancement of the quality of older works, making them accessible to new generations of listeners and viewers. Bosi et al. (2024) analysed the use of AI in the restoration of audio recordings, pointing to its ability to improve the quality of historical media. However, the use of AI for the reconstruction of missing parts raises ethical and legal issues, particularly in relation to the authenticity of the edited content and the copyright of historical works.

According to Kabát, technological advances in AI present fundamental challenges for the processing of historical recordings. The reconstruction of audio through AI opens up new possibilities for archiving, but also raises questions about the authenticity and historical fidelity of the content. These discussions are particularly important in the context of cultural heritage, where it is necessary to balance technological advances with respect for the historical integrity of the media (Kysler, 2023).

Content Personalisation and the Recommendation Algorithms

Media content personalisation is one of the most prominent areas where artificial intelligence plays a key role in improving the user experience. Algorithms allow users to analyse their behaviour and dynamically adapt the displayed content based on their preferences. Filip and Somr focused their research on the use of AI in the personalisation of media platforms such as Netflix and Spotify. Their analysis showed that recommendation systems increase audience engagement and optimise the user experience. At the same time, they highlight the challenges associated with privacy protection and transparency of algorithms that determine the selection of displayed content (Filip & Somr, 2024).

According to Denník N's MediaBriefing, the Czech news site Seznam Zprávy has introduced a 30-point code for the use of artificial intelligence to ensure that the media remains under human supervision. This code stipulates that any AI-generated content must be clearly labelled, thus ensuring transparency of information. At the same time, editors are not allowed to publish news created exclusively by artificial intelligence, thus eliminating the risk of spreading unverified or misleading information. The key rule is that a human must be responsible for all media outputs, which strengthens the credibility of journalistic work and prevents the uncontrolled spread of AI-generated content. Such measures are essential from the perspective of media ethics and credibility, because personalisation of

content, while increasing reader engagement, can also lead to the creation of information bubbles and limiting diversity of opinion (Struhárik, 2023).

Visual Content Generation

Generative AI models, such as DALL·E and MidJourney, allow for the creation of detailed and realistic visual outputs based on textual inputs. These technologies are increasingly being used in the advertising industry, journalism, and digital marketing.

Grupač et al. (2024) examined the impacts of AI on visual literacy and media communication, showing that AI-generated images can be as effective and engaging as traditionally created content. Their research also highlights the risks associated with the authenticity and credibility of visual materials, especially in the context of the spread of disinformation.

According to the INFOSECURITY.SK article, generative AI is also used by news media, with its main applications including automated content creation, such as generating illustrations for articles, identifying and analysing disinformation, especially through the detection of manipulated images, and visual personalisation of content, where AI allows for the creation of ads tailored to specific users. These applications indicate that the impact of AI in the media industry is no longer limited to text messages, but is increasingly entering visual communication. However, this trend is associated with new ethical and legal challenges, especially in the area of copyright and transparency in the use of AI-generated visuals, where it is essential to ensure clear labelling of such content and its regulation (Bruška, 2023).

AI in Journalism and Automated News Production

The automation of journalism using artificial intelligence is one of the most controversial changes in the media industry. AI tools are increasingly being used to generate real-time news, analyse data, and create pre-made article templates, especially in the fields of sports and finance.

Hospodárske noviny reported that the publishing house Axel Springer has started laying off employees whose jobs can be replaced by AI. As part of the restructuring, some positions of editors, proofreaders and photo editors are being eliminated, with the main motivation being to reduce the costs and increase the efficiency of reporting. The move is sparking a debate about the future of editorial teams and to what extent AI-generated articles can be reliable and ethically acceptable (HNonline.sk, 2023).

According to Denník N, some media outlets are already implementing strict rules for the use of artificial intelligence in journalism to ensure transparency and credibility of media outputs. As mentioned above, the Czech news portal Seznam Zprávy has adopted a 30-point code of ethics regulating the use of AI in editorial activities. This code stipulates that artificial intelligence must not be the primary author of news, but can serve as a support tool for journalists. At the same time, any AI-generated content must be transparently marked so that readers can distinguish what was created by AI and what was created by a human. The ultimate responsibility for published articles remains with the editors, thus ensuring human oversight of the content (Struhárik, 2023).

A practical example of automation in journalism is the portal Topky.sk, which has implemented an AI presenter, Andrea, presenting news in audiovisual form. This project shows that AI can replace not only text editors, but also TV presenters, opening up new possibilities in media production. However, the introduction of such technologies raises questions about the credibility and authenticity of journalism, as viewers may not be aware that they are consuming fully automated content. Although AI brings new possibilities for automation and personalisation to journalism, it remains questionable whether it can replace human judgment, investigative work, and the ethical decision-making of journalists (Medialne.sk, 2023).

Music Production and Sound Design

AI is also increasingly being used in music production and sound design. Generative models such as AudioLDM 2 allow for the synthesis of music and sound effects based on text input, which speeds up the creation of audio content for films, games and advertisements. AI can analyse vast amounts of music samples and create compositions in the style of specific artists, opening up new possibilities for the creative industries. Liu et al. (2024) examined the use of

AI in music production and concluded that AI can effectively imitate human musical creation, but with limitations in terms of originality and emotion in compositions. The research also highlights legal and ethical issues, especially when generating music that imitates the works of existing composers.

Certain music platforms have already started to integrate AI into their composition processes, automating the creation of music and sound effects. Machine learning-based tools are currently being used to generate background music for films and games, enabling more efficient production of audiovisual content. AI is also playing a significant role in the autonomous creation of sound effects, which are an important part of the film and gaming industries. In addition, artificial intelligence is also being used to remaster and clean old music recordings, contributing to the preservation and restoration of cultural heritage (Medialne.sk, 2023).

However, these technological advances have raised concerns about the potential extinction of some professions in the music industry. Critics warn that artificial intelligence can devalue the creative value of music, as the generated compositions often lack the unique authorial signature and emotional depth that a human composer brings. Nevertheless, AI represents a significant tool for the production and distribution of music, and the question remains how to find a balance between technology and artistry.

Deepfake Technologies and Their Use in the Media

Deepfake technologies, which use advanced generative artificial intelligence models to synthesise realistic videos, represent a significant trend in media production. These tools allow for the manipulation of audiovisual content in ways that were previously technically challenging and required extensive knowledge of visual effects.

According to Forbes, deepfake technologies are increasingly being used in the advertising and entertainment industries, where they open up new creative possibilities for media production. The main applications include the digital revival of historical figures in films, which allows the creation of realistic replicas of famous characters based on existing visual materials. Artificial intelligence is also used for personalised advertisements with generated faces, thus providing marketers with tools to create hyper-realistic advertising campaigns. Another area of application of deepfake technologies is dubbing in different languages synchronised with the original facial expressions of actors, which improves the viewer experience and facilitates the localisation of audiovisual content (David, 2021).

Although these innovations offer new possibilities in the creation of media content, deepfake videos can be misused to spread disinformation. According to INFOSECURITY.SK, they pose a serious risk in the field of political propaganda and fraud, as they allow the creation of manipulated videos of public figures, which can be used to discredit individuals or spread false news. In recent years, deepfake technologies have been used in various political and media campaigns, with some modifications being so realistic that they were difficult to identify even during detailed analysis (Bruška, 2023).

The development of deepfake AI therefore raises ethical and legal questions, with experts stressing the need for regulation and tools to detect manipulated content. Given technological advances, it is essential to create mechanisms for the control and transparent labelling of AI-generated videos to prevent their misuse in disinformation campaigns. The regulation of deepfake technologies is therefore becoming a key issue. Some countries have already introduced legislation requiring clear labelling of AI-generated content, but many regions still lack effective mechanisms for their control. The development of deepfake AI also raises ethical and legal questions that will be crucial for the future of the media industry in the coming years. While experts in the field of digital ethics and media communication, such as Mirek-Rogowska et al. (2024) and Grupač et al. (2024), see this technology as an opportunity for visual creativity, others warn of the dangers of disinformation and a loss of trust in media content.

Table 1: The overview of areas of use of AI in media, their benefits, challenges and application examples

	AI application area	Main advantages	Main challenges	Usage examples
1	Revitalisation of historical media	Improving the quality of old recordings, removing noise, preserving cultural heritage	Authenticity and legal issues in editing historical recordings	Reconstruction of historical recordings

2	Content personalisation	Increasing user engagement, effective content recommendation	Information bubbles, algorithm transparency	Netflix, Spotify recommendation algorithms
3	Visual content generation	Effective visual creation, automated production in marketing and media	Copyright, trustworthiness of AI-generated content	AI-generated visuals in media
4	AI in journalism	Fast news processing, reducing journalism costs	Job losses, questions over reliability of AI-generated reports	AI presenter
5	Music production	Fast music and sound effects creation, innovative composition	Loss of originality, legal aspects of imitating musical styles	AI songs and sound effects
6	Deepfake technologies	Creative opportunities in films and commercials	Spreading misinformation, regulating and controlling deepfake videos	Deepfake ads and digital revival of personalities

Source: Own processing, 2025

AI is being used in the media industry in a wide range of areas, from revitalising historical media to generating visual and audio content. The table provides a summary overview of the main benefits and challenges of using AI in media, along with specific examples of its application in practice.

5 Ethical, Legal, and Societal Challenges of AI in Media

AI in the media and creative industries raises significant ethical, legal and societal questions regarding originality, copyright, disinformation, academic integrity and transparency of media content. Although AI offers new tools for content creation and distribution, its widespread application raises regulatory and moral dilemmas that require careful analysis. One of the most significant ethical issues in the media industry is the question of authenticity and originality of AI-generated content. AI models are capable of creating realistic visual, textual and audio works that can be indistinguishable from human-generated content. According to Grupač et al., the ability to identify the difference between AI-generated visual elements and original human works is limited, which may lead to changes in perceptions of visual literacy and media credibility. Another issue is the liability for AI-generated content. When AI creates disinformation or misleading material, the question of moral and legal responsibility arises – whether it should be attributed to the developers of the model, its users, or the platforms that enable its dissemination (Grupač et al., 2024).

Legal Challenges: Copyright and Content Ownership

AI models are often trained on large datasets that may contain copyrighted works. This raises the question of whether AI-generated content infringes copyright, and if so, how it should be regulated. According to Bosi et al. (2024), existing standards for the preservation and processing of historical media include automated tools for the reconstruction of audio recordings, while it is still unclear how copyright will apply to digitally processed works in this area.

Another important aspect is the question of who owns the rights to AI-generated content. While in the traditional media industry, copyright is clearly assigned to human creators, in the case of AI it is unclear whether the AI can be recognised as the creator or whether the ownership rights belong to the user of the model. Some legal

systems are already starting to create regulations that try to address these issues. For example, some jurisdictions are starting to require that AI-generated content be explicitly labelled as artificially created.

Societal Challenges: Disinformation, Manipulation, and Privacy

AI has a significant impact on the dissemination of information and on the formation of public opinion, raising questions about its responsibility in the creation of media content. One of the main risks is the misuse of AI to generate disinformation and deepfake videos, which can affect political events, the reputation of individuals or trust in news media. Artificially generated content can have a fundamental impact on the perception of reality, and the public may not always be able to distinguish between authentic and synthetic media.

Liu et al. (2024) point out that advanced AI models can be used for voice synthesis and automated production of audiovisual content, which opens up new possibilities in the media industry, but also increases the risk of manipulation and the spread of false information.

Current regulatory efforts focus on transparency and labelling of AI-generated content to prevent misinformation and to clearly distinguish between human-generated and artificial intelligence-generated content. In the area of privacy, Moravčíková et al. identify a new trend called *the Quantified Self movement,* where AI collects and analyses large volumes of user data, thereby merging reality and the virtual world into one. This process creates space for new forms of surveillance, commercialisation of personal data, and manipulation of media content, which require fundamental regulation (Moravčíková et al., 2024).

6 Discussion: The Future of AI in Media and Possible Directions

As artificial intelligence continues to develop, it is expected that it will be increasingly integrated into media processes. AI will affect not only the way media is created and processed, but also its distribution and perception by the audience. Key trends include automation of content creation, personalisation of media outputs, digital content protection, and new ethical and legal challenges. One of the most important directions is the use of AI for long-term archiving and protection of archival media products. These technologies not only preserve content, but also revitalise it, thereby supporting its new creative processing. An example is the use of AI to reconstruct damaged audio recordings, which are then integrated into new multimedia projects. Another significant trend is the use of AI to streamline media production. Generative AI models can automatically create visual content, edit audio recordings, and even generate texts for reports or scripts. They also highlight the potential of adaptive editorial systems that enable personalisation of content for specific users. These systems could be used on platforms such as streaming services, where AI adapts content based on viewer behaviour and preferences (Mirek-Rogowska et al., 2024; Grupač et al., 2024).

Academic discussions are increasingly focused on how AI can redefine the value of media products and how it can be used to optimise production and distribution strategies, opening up new possibilities for editorial teams and media companies.

Trend Prediction and Automated Advertising

Murár et al. (2024) suggest that current generative models are undergoing rapid development, and that they are likely to be able to generate content almost indistinguishable from human-generated content within a few years. Although their research hypotheses were rejected, the authors emphasise that AI is constantly advancing and that in the future it will be possible to fully integrate generated communication into marketing strategies without the need for significant human editing.

AI Regulation and Protection against Disinformation

Research shows that regulation is necessary to reduce the negative impacts of AI in the media space. Media literacy education may be one solution to strengthen the public's ability to critically evaluate AI-generated content (Čábyová & Javořík, 2024).

Current initiatives are focused on creating legal frameworks that would ensure the transparency of AI-generated content. It is expected that new rules will be developed in the near future for labelling AI-generated content to minimise the spread of disinformation and manipulation of public opinion. The future of AI in media will therefore not only be a question of technological innovation, but also of setting ethical and legal standards that ensure the sustainable and fair development of this technology in the media industry.

AI has established itself in the media industry as a tool that expands creative possibilities, optimises media processes and changes content distribution. The study results show that AI primarily complements human creativity and enables more effective personalisation of content. However, it raises questions about transparency, authenticity and regulation.

One of the main findings is that AI can both enhance and undermine the credibility of the media. On the one hand, it enables content verification, but on the other hand, it opens up space for deepfake technologies and the spread of disinformation. This paradox suggests the need for regulatory measures to ensure the ethical use of AI in the media environment.

The regulatory framework for AI varies across regions, with Europe emphasising user protection while the US is driven by economic efficiency. This imbalance could affect the global direction of AI in media. Content personalisation has its benefits, but it can also contribute to information bubbles and audience polarisation.

From a methodological perspective, it has been shown that the literature review and specific examples of the use of AI in media products offer valuable insights, but further research should include empirical data from media companies and longer-term analyses of the impacts of AI on the media industry.

Key questions for further research:

- How can the transparency of AI-generated content be ensured?
- What are the long-term impacts of media personalisation on critical thinking?
- How can AI be regulated in the media without limiting innovation?

Future research should also focus more on specific formats of AI in the media and their interaction with human creators.

7 Conclusion

The development of artificial intelligence is unstoppable and is progressing at a speed that many found difficult to imagine just a decade ago. It turns out that the dynamic growth of AI is increasingly being implemented into media processes, and that it will increasingly influence the creation and processing of content, which will also have an impact on the target audiences. The audience will also be affected, and AI will significantly contribute to the automation of content creation, personalisation and archiving of media outputs, and digital content protection. At the same time, AI creates completely new ethical and legal challenges.

AI will fundamentally impact the media industry, while it is not only the expected innovations that raise questions related to authenticity, ethics and regulations. Any predictions on the future development of AI in the media must respect the highly dynamic nature of this technology and also admit the partial impossibility of estimating the potential consequences of its use.

The main challenge is related to balancing technological advances with a responsible approach to implementing AI in the media. Transparency, legislative regulation, and clear labelling of AI-generated content will be key factors influencing its future adoption.

AI should not be seen as a replacement for human creativity, but as a tool that can strengthen the media ecosystem – if used ethically and with the public interest in mind. A separate chapter discusses the possibilities of connecting human creativity with AI capabilities, with the resulting media products playing an interesting role in the media industry not only in terms of attractiveness for target audiences, but also from an economic perspective.

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