

EDITORIAL*

Artificial intelligence (AI) is increasingly taking on a crucial role in shaping contemporary technologies, the economy, and society. Its ability to process vast amounts of data, recognize patterns, and generate new solutions is driving transformations in nearly all areas, including the creative industries. Based on discussions held at the 29th International Conference Society and Technology: Creative Industries and Artificial Intelligence, organized under the sponsorship of the journal *Interdisciplinary Description of Complex Systems* and held on April 18-19, 2024, in Zagreb, Croatia, this special issue is dedicated to analyzing the impact of artificial intelligence on creative processes and the ways it is redefining the boundaries between humans and technology.

Artificial intelligence has the potential to change the ways we approach the creation, implementation, and interpretation of art and creative content. Its algorithms enable the generation of complex compositions, simulations, and analytical solutions that were previously unattainable. For example, programs such as DALL-E and MidJourney allow users to create visual artworks based on textual prompts, while OpenAI's Jukebox generates music in various styles. Although these tools make content creation easier, their ubiquity raises questions about the authenticity and uniqueness of works generated in this way.

One of the key challenges in the development of AI in creative processes is the question of originality. Creativity is often defined as the ability to connect seemingly unrelated elements in innovative ways. However, artificial intelligence, which relies on existing data and patterns, primarily simulates creativity without possessing the actual ability to innovate. While it can create the illusion of new ideas, its results often remain within the framework of existing styles and rules. Nonetheless, such tools provide artists with opportunities to expand their capabilities and focus on the conceptual aspects of creation.

The impact of artificial intelligence also extends to the labor market, particularly within the creative industries. The automation of tasks such as illustration, video editing, and music production is already reshaping job structures. On one hand, artificial intelligence reduces the time required for technical tasks, allowing professionals to focus on innovation, but on the other hand, it reduces the demand for certain occupations. Freelance illustrators and designers, for instance, face competition from algorithms capable of producing content quickly and affordably.

Ethical issues associated with the application of artificial intelligence in the creative industries also demand special attention. A key question concerns intellectual property rights: who owns the content generated by artificial intelligence – the developers of the algorithms, the users, or no one? Additionally, the misuse of technology, such as generating deepfake content or manipulating public opinion, highlights the need for clear regulatory frameworks. Legal and ethical regulations will be crucial to ensure the responsible use of these technologies.

As artificial intelligence develops, its impact on human creativity and identity remains a topic of intense debate. Many experts believe that artificial intelligence cannot replace human intuition, emotional depth, and spontaneity, which characterize true creativity. However, it can act as a powerful tool to expand human abilities, enabling artists and creators to explore new horizons. The development of artificial intelligence is irreversibly transforming the creative industries, bringing opportunities for innovation but also challenges in preserving authenticity, ethics, and the human dimension. While artificial intelligence has the potential to advance creative processes and open new forms of artistic expression, it is essential to ensure that its development aligns with ethical standards and the needs of society.

In this special issue, Robert Kopal, Darija Korkut, and Krešimir Žnidar, in their article *Deep Insights into AI Perception in Croatia*, analyze the results of a survey conducted among Croatian citizens with the aim of gaining deeper insights into the perception of artificial intelligence. Krunoslav Malenica and Vlaho Kovačević, in their article *Cultural Sector in the Pandemic Period: A Case Study of Oksid Association*, present the impact of the COVID-19 pandemic on the cultural sector through a case study of the Šibenik-based Oksid Association. Martina Stadnik, Ana Lokas Čošković, Tihana Branko, and Domagoj Ružak, in their article *AI and Writing Skills: Students' Attitudes towards Using AI to Enhance Their Writing Based on the Example of Algebra University Students*, explore the use of artificial intelligence among students of Algebra University and their attitudes toward writing with the help of AI. Dominik Vuletić, in his article *High Risk Artificial Intelligence Systems and Legal Doctrine of Essential Facilities: In Search for a Dynamic Model*, analyzes high-risk AI systems in the context of the EU Artificial Intelligence Act and proposes a regulatory model for future development.

The presented scientific articles cover a wide range of topics related to artificial intelligence and the creative industries, offering new insights and encouraging further research activities in this innovative field.

Guest editor

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