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HARNESSING ARTIFICIAL INTELLIGENCE FOR INNOVATION AND BUSINESS RESILIENCE IN PUBLISHING

In the modern publishing business, artificial intelligence (AI) is becoming a powerful tool that is transforming the way content is created, edited, and distributed. It helps automate routine tasks, improve the accuracy of texts and graphics, speed up production cycles, and offer more personalized products to readers.

This combination of technological innovation with attention to quality and ethical standards ensures not only competitiveness but also long-term business resilience. Publishers that are able to integrate AI into their processes can respond more effectively to market changes, reduce costs, and maintain reader trust, which forms the foundation of their success in today's digital environment.

In today's information society, publishing is undergoing a period of transformation driven by digitalisation and the introduction of innovative technologies. One of the most influential trends in recent years has been the active use of artificial intelligence (AI) systems in the creation, editing and distribution of information products. Automation of technical editing, text generation, graphic processing and content personalisation all open up new opportunities for the development of the publishing industry.

At the same time, the emergence of AI poses a number of ethical challenges for society and the professional community: from the issue of authorship and authenticity of information to the threat of human creativity being replaced by algorithms. Therefore, addressing the issue of AI use in publishing processes requires an interdisciplinary approach – a combination of technological potential and ethical responsibility.

In the modern publishing and printing industry, the integration of artificial intelligence (AI) and digital technologies opens up opportunities to increase productivity and improve the quality of the processes of creating, editing and printing graphic materials [1].

On the other hand, the use of generative AI raises a number of challenges related to authorship, artistic uniqueness, the ethics of using other people's styles, and the impact on the visual design profession. The study focuses on the intersection of two areas: graphic information processing (which covers the technical aspects of image generation, optimisation, editing, and transformation) and the art of illustration (creative concept, composition, style, and interpretation). This interdisciplinary approach allows for a deeper understanding of the role of the contemporary artist in the era of digital intellectual tools [2].

The ethical dimension of artificial intelligence is formed as a natural response to its impact on society. It covers issues of moral responsibility, transparency, fairness and security. The main task of AI ethics is to ensure that technology contributes to human well-being without violating human dignity, rights and freedoms. Thus, ethics acts as a kind of mediator between technical achievements and humanistic values.

Another key issue is balancing ethical standards with the possibilities of technological progress. For example, how to ensure the safety and privacy of people when using AI in areas such as autonomous vehicles or medical systems. It is important to find a balance between adhering to ethical principles and using technology to achieve useful results [3].

AI ethics in publishing is emerging as a response to the rapid penetration of these technologies into the work processes of editors and designers. It concerns responsibility for created content, authorship and its origin. The main goal is for digital tools to help improve the quality of texts and graphics without diminishing the role of the human creator or violating their copyright. In this sense, ethics becomes an important bridge between the technical capabilities of AI and the traditional values of publishing – creativity, authenticity, and trust in the information product.

Among the obvious benefits that the publishing industry gains from the introduction of AI, several key points can be highlighted.

1. Speed. Algorithms significantly speed up all stages of production, from concept development to final printing. What used to take weeks can now be done in a matter of days or even hours.

2. Cost savings. Automating the processes of layout, technical editing, and graphics processing reduces the cost of preparing materials and at the same time lightens the load on the team, giving them more space for creative work.

3. Accuracy. Machine tools can reduce the number of technical and grammatical errors, quickly identify layout flaws or inconsistencies in graphic elements, which has a positive impact on the quality of the final product.

4. Personalisation. Thanks to AI, it is now possible to create publications tailored to specific readers: books with individual illustrations, adapted text or even interactive content.

Potential risks and challenges of implementing AI in publishing processes:

1. Loss of authenticity. Automatically generated texts or illustrations may look good, but they often lack ‘soul’ – the uniqueness and authorial style that make a book a true work of art.

2. Copyright issues. AI works on the basis of works already created by humans. This raises legal and ethical dilemmas: who is the real author – the programme or the person using it?

3. The threat of false information. Algorithms are not always able to distinguish between true and false facts. As a result, false content may end up in a book or magazine, damaging the publisher's reputation.

4. Dependence on technology. Excessive automation reduces the role of the editor and proofreader, which can lead to a loss of professional skills within the team. At a critical moment, without a specialist ‘at the helm,’ the quality of the product can drop dramatically.

5. Ethical dilemmas. The use of AI requires transparency: should the reader know that the book was partially created by a machine?

6. Technical and financial barriers. Modern AI tools are often expensive, require specialists and constant updating. For small publishers, this can be an unbearable burden.

7. Risk of standardisation. Automatic algorithms can ‘cut corners,’ making texts and designs too typical and lacking in originality. This reduces diversity and leads to uniformity in the book market.

The use of artificial intelligence in publishing has both obvious advantages and a number of challenges. On the one hand, technology helps to work faster, reduces costs, minimises technical errors and opens up opportunities for personalisation and flexible adaptation of publications. On the

other hand, serious questions arise: will the uniqueness of the author's style disappear, how to protect copyright, how reliable will the information remain, and will specialists lose their skills due to excessive automation? Added to this are financial barriers – not every publishing house can afford expensive AI systems.

Therefore, the main task today is not only to introduce new tools, but also to be able to combine their advantages with human creativity, professionalism, and ethical principles. It is this balance that will determine the future development of the publishing industry. In publishing and technical editing, AI is about the responsible use of digital technologies to improve the quality of text and graphic content. It aims to strike a balance between automation and creativity, while preserving copyright, authenticity and trust in the published product.

Business resilience in the publishing industry today largely depends on how successfully traditional approaches are combined with new technologies. The use of artificial intelligence can become a pillar of stability: automated processes reduce costs, allow faster responses to market demands, and create opportunities for personalized products.

At the same time, true resilience is not just about technology. It lies in the ability to maintain readers' trust, uphold the quality and authenticity of content, even when part of the work is performed by algorithms. A business that can balance technological efficiency with human creativity is better equipped to withstand crises and remain competitive in the long term.

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