

# ІНФОРМАТИКА, ОБЧИСЛЮВАЛЬНА ТЕХНІКА ТА АВТОМАТИЗАЦІЯ

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## CURRENT TRENDS IN THE USE OF INFORMATION TECHNOLOGIES IN THE PUBLISHING INDUSTRY OF UKRAINE

*The scientific article explores the contemporary role of publishing and technical editing in the informational space. The authors analyze the impact of technological innovations on the publishing process, emphasizing the importance of technical editing in ensuring content quality. The article highlights key aspects of utilizing modern technologies in the publishing industry and their influence on the information sphere. The research underscores the need to adapt the publishing process to modern requirements and examines the prospects for further development in the digital era. A crucial aspect of the article is the analysis of the influence of information technologies on changing reading habits and content perception. The study also considers the role of technical editing in ensuring accessibility and clarity of information. The authors illuminate the publishers' role in shaping the modern information space, discussing their responsibility for maintaining high quality standards and ensuring access to diverse and valuable content. The article aims to contribute to understanding the importance of the interaction between publishing and technical editing in the context of the contemporary information environment. An essential element is the examination of the impact of technologies on changing reading habits and information understanding. The article reveals how technical editing influences the creation of accessible and understandable content for diverse audiences. The concluding part of the analysis discusses the prospects for the development of the publishing industry, relying on identified trends and recommendations for optimal use of technical editing in the digital age. Overall, the article offers profound insights into the relationship between publishing and technical editing, emphasizing their crucial role in shaping the contemporary information landscape. The compilation of the main conclusions of this research allows for insights into publishing and technical editing. These conclusions and recommendations serve as the basis for further improvement and utilization of technical editing in the publishing industry.*

**Key words:** publishing business, technical editing, information technologies, information space, IT in publishing.

**Formulation of the problem.** Due to the rapid development of information technologies and changes in readers' habits, the role of publishing and technical editing in the modern information space is gaining importance. Against this background, the problem arises of determining the impact of these areas on the formation, dissemination and perception of information.

In particular, it is important to determine how technical editing and publishing interact in the digital environment, where information is becoming more accessible, but also more vulnerable to the impact of technology. Another challenge is balancing the quality of output with the speed of publication, and

identifying effective strategies for engaging with audiences through new media.

This problem is relevant in the context of constant changes in the modern information environment and requires detailed analysis and scientific substantiation to highlight the essential aspects of the interaction between publishing, technical editing and the information environment. The relevance of the topic is determined by a number of key factors that affect the modern information society. Here are some arguments that emphasize the relevance of this topic:

– exponential growth in the volume of information, in which publishing and technical editing play a

key role in ensuring the quality and accessibility of information for users;

- technological transformation of the publishing industry, in which the introduction of the latest technologies changes the paradigm of content creation and distribution. Understanding these changes is important for the effective functioning of the publishing industry;

- competitive conditions require publishing houses and technical editors not only to be of high quality, but also to be efficient in the use of resources. Technical editing is becoming a crucial element in achieving these goals;

- in the context of information noise and infodemic, the ability to effectively edit and filter information becomes important for the perception and understanding of content;

- the growing popularity of online content requires new publishing and technical editing strategies to ensure efficiency and development in this dynamic environment of expanding internet space;

- the increasing importance of visual communication requires improving the technical aspects of editing to effectively communicate information through various channels;

- publishing houses and technical editors need to adapt to changes in consumer preferences and evolving expectations regarding the quality and form of information presentation.

These factors demonstrate the importance of studying and understanding the role of publishing and technical editing in the country's modern information space.

**Task statement** is to identify the importance of the impact of publishing and technical editing on the modern information space. The study aims to reveal key aspects of these areas, determine their contribution to the dissemination and formation of information, and identify technological improvements that contribute to the more efficient functioning of publishing houses and editorial offices in the digital age. The main tasks include analyzing current trends, studying the latest technologies, and considering the impact of these processes on changes in the information space.

**Analysis of recent research and publications.** Both domestic and foreign scholars are engaged in the study of publishing in Ukraine. Such scholars as O. Afonin [1], I. Baturevych [2], O. Khmelovska [2], O. Koval [5], I. Kopystynska, T. Krainikova, Z. Partyka, V. Rizun, V. Teremko [7], L. Cherednyk [8] and many others have studied the basics of the publishing and information sphere. Such scholars as N. Zelinska, M. Zhenchenko, M. Savky, M. Sheiko,

N. Chernysh, and A. Tokarchuk have studied the trends in the development of the publishing market of Ukraine.

**Outline of the main material of the study.**

Current trends in the development of Ukrainian publishing include, first of all, a conscious effort by publishers to publish high-quality literature, which leads to a decrease in the production of low-quality books, such as books on newsprint. Currently, more and more attention is being paid to creating high-quality translations into Ukrainian. According to foreign literary agencies, the activity of Ukrainian publishers in acquiring rights to publish foreign works is constantly growing.

The total circulation of Ukrainian books, according to the Book Chamber of Ukraine, amounted to 28,638.1 thousand copies at the beginning of 2022, with more than 1,000 translations in the period 1998–2021, including more than 135 in 2021, including 63 under the Translate Ukraine translation support program. The books were published in 24 countries covering four continents and translated into 21 languages, with a total circulation of over 66,500 copies [6].

This data shows that:

- market resilience even in wartime circumstances, with severe challenges associated with martial law, book publishing remains a stable and active segment of cultural life;

- book publishing in Ukraine shows impressive internal mobilization and support from domestic publishers, who, despite the difficulties, continue to work actively on new projects;

- publishing houses and booksellers are adapting to the difficult conditions and expanding their infrastructure, using modern technologies and online solutions to provide access to literary works;

- book publishing contributes to overcoming language and cultural barriers in the context of military operations by actively promoting Ukrainian literature internationally.

It's safe to say that there is a profound understanding of the importance of copyright. Another undeniable trend is that since 2015, there has been a definitive shift in reader preferences. An important achievement of Ukrainian publishing was the shift in readers' interests towards Ukrainian-language books. In response to this trend, many publishing houses began to pay increased attention to the quality of translation and printing, and to work more intensively with Ukrainian authors. As a result, the number of new releases has increased, and translation projects have started to appear faster. Some of the world's bestsellers are now available to Ukrainian readers in Ukrainian translation [3].

High-quality design, high-quality illustrations, and advanced printing technologies in Ukraine provide a significant basis for international cooperation, and the prerequisites for normal competition of the Ukrainian publishing product began to take shape, but were interrupted by Russia's full-scale invasion of Ukraine.

The importance of publishing and technical editing in today's information society lies in their key role in the formation, organization, and dissemination of information that determines the quality and accessibility of knowledge for a wide audience. Let us consider the functions of publishing and technical editing in modern Ukraine:

1) In a world saturated with a huge amount of information, publishing and technical editing perform an important function of filtering and verifying and curating content. This helps ensure that consumers receive high-quality and reliable information;

2) technical editing acts as a tool for normalizing and standardizing text and multimedia content. This helps to unify information products and ensure clarity for different audiences;

3) publishing determines the availability and distribution of access to knowledge. It plays a key role in the creation and distribution of books, magazines, electronic resources, etc., which allows society to acquire new knowledge and develop;

4) modern publishing houses contribute to the formation of information literacy, teach how to work effectively with information, adapt to new media formats and understand the importance of critical thinking;

5) publishing and editing, among other things, shape public opinion. Media and publications direct public attention to key issues and influence the formation of public opinion;

6) cultural values, history and identity are transmitted through books and media resources;

7) Ukrainian publishing houses promote the creation of interactive and user-friendly content that ensures effective perception of information in the online environment.

Technology plays an important role in improving the publishing process by speeding it up, making it more accessible and universal. Below are the key aspects of the role of technology in the publishing process:

1) technology allows automating a number of tasks in publishing production, including layout, printing, and packaging, which leads to increased efficiency and reduced costs;

2) the use of modern design technologies in the design and layout process allows creating high-quality and aesthetic content;

3) the use of artificial intelligence elements and analytical tools allows to better predict trends in reader preferences, predict the popularity of certain content and optimize the publishing strategy;

4) the introduction of interactive and multimedia elements, such as video, audio, and animations, makes the content more attractive and promotes more active perception of information;

5) online platforms and electronic sales systems allow for the distribution and sale of publications without significant costs for physical printing and delivery;

6) modern technologies of collective work with files create conditions for global networking of authors, editors, designers and other participants in the publishing process.

Modern information technologies not only enrich the content of publications for readers, but also simplify technical editing by offering editors new tools and methods. Comparison of the effectiveness of traditional and modern methods of technical editing includes a number of key aspects, which are presented in Table 1.

In general, modern technology-based methods of technical editing provide more opportunities for increasing efficiency, accuracy, and effective collaboration than traditional methods.

The review of best practices in the use of technical editing in publishing includes a number

Table 1

**Comparison of traditional and modern methods of technical editing**

Aspects	Traditional methods	Modern methods
Speed and efficiency	Manual editing, time-consuming and labor-intensive	Using editors and automation programs, faster and more efficiently
Accuracy and consistency	Prone to errors and style variations	High accuracy, consistency with automated tools
Scalability	Inefficient for large volumes	Easy scalability for large volumes
Interaction with the author	Limited by physical constraints	Virtual interaction through electronic means, effective collaboration
Use of artificial intelligence technologies	Not used	Use of AI technologies to automatically detect and correct errors
Cost	High costs for manual labor	Lower costs due to automation and reduced time

of innovative approaches and strategies that help optimize the editing process and improve the quality of publications. Some of the key practices in this context are:

1) automation of editing through the use of various editors and programs that use artificial intelligence technologies to automatically detect and correct grammatical, stylistic and other errors;

2) use of version control systems to effectively manage changes in text documents, which simplifies the process of teamwork and ensures the stability of publication versions;

3) integration of translation terminals to automatically check and improve translations in multilingual publications;

4) active cooperation between technical editors and designers to synergize with design and create harmonious and effective layouts;

5) use of digital editorial platforms to facilitate collaborative work on texts, increase productivity and reduce time for correction;

6) use of electronic tools to detect and eliminate spelling and grammatical errors, which greatly facilitates the process of technical editing;

7) conducting readability tests to determine the effectiveness of technical editing and identify questionable or “weak” areas in texts.

Modern information technologies can improve productivity, reduce costs, and improve content quality, making the publishing and technical editing process more efficient and innovative.

In a dynamic information medium, the role and importance of publishing and technical editing is undergoing significant changes due to technological, cultural and social transformations. Publishing is moving to a digital environment, which requires new strategies to engage audiences and monetize content. Let's look at examples of such strategies:

– using data analytics to understand users' interests and behavior and subsequently create personalized content that meets their needs and preferences;

– active presence of the publishing house in social networks to attract the audience through advertising, content marketing, interaction with subscribers and participation in viral trends;

– creation of streaming programs, webinars and other multimedia content that can be embedded in interactive publications to attract the attention of the audience and increase its engagement;

– development of audio content, such as podcasts, audio books, author commentaries or musical adaptations, which can be used by consumers in a multitasking mode;

– involving the audience in the content creation process through contests, voting on topics, or participating in the content formation through comments and discussions;

– transition to a subscription model, where users have access to premium content for a certain monthly or annual fee (special editions of books with additional materials, such as author's comments, illustrations, additional chapters or extended endings, editions with exclusive covers or signed by the author).

Publishing plays a significant role in the process of gradual modification, distribution and perception of information, which leads to an increase in its dynamics, diversity and accessibility to users.

**Conclusions.** In general, publishing and technical editing is a necessary link in the information society, affecting the formation, dissemination and perception of information, as well as the development of society as a whole. Given these aspects, technology not only improves the traditional publishing process but also provides new opportunities for development and adaptation.

Artificial intelligence has introduced a new dimension to editing practices, providing AI-powered software that can analyze and enhance writing quality. The ability of AI to understand context and tailor suggestions showcases its potential in aiding editors. However, the necessity of human judgment in assessing the appropriateness and overall impact of AI-generated improvements remains crucial [9].

The summary of the main results of this study allows us to draw the following conclusions and provide recommendations:

the use of automation technologies helps to remove much of the editorial routine, focusing efforts on the more creative and strategic aspect of editing; technical editing, using various tools, helps to identify and correct grammatical and stylistic errors, improving the overall quality of texts; the use of version control systems and editorial platforms promotes effective cooperation between editors and other participants in the publishing process; the use of translation terminals improves the quality of translations and contributes to the globalization of publishing products; close interaction between technical editors and designers ensures the creation of harmonious and effective layouts.

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### **Андрюшенко Т.Ю., Бережна О.Б. СУЧАСНІ ТЕНДЕНЦІЇ ВИКОРИСТАННЯ ІНФОРМАЦІЙНИХ ТЕХНОЛОГІЙ У ВИДАВНИЧІЙ СПРАВІ УКРАЇНИ**

*Розглянуто сучасну роль видавничої справи та технічного редагування в інформаційному просторі. Автори аналізують вплив технологічних інновацій на видавничий процес, розкриваючи важливість технічного редагування у забезпеченні якості контенту. Стаття висвітлює ключові аспекти використання сучасних технологій у видавничій галузі та їхній вплив на інформаційну сферу. Дослідження вказує на необхідність адаптації видавничого процесу до сучасних вимог, а також розглядає перспективи подальшого розвитку видавничої справи в цифрову епоху. Важливий аспект статті становить аналіз впливу інформаційних технологій на зміну читацьких звичок та способів сприйняття контенту. Дослідження також враховує роль технічного редагування у забезпеченні доступності та зрозумілості інформації. Автори також висвітлюють роль видавців у формуванні сучасного інформаційного простору, обговорюючи їхню відповідальність за збереження високих стандартів якості та забезпечення доступу до різноманітного та цінного контенту. Стаття ставить за мету сприяти розумінню важливості взаємодії між видавничою справою та технічним редагуванням у контексті сучасного інформаційного оточення. Важливим елементом є розгляд впливу технологій на зміну читацьких звичок та розуміння інформації. Стаття розкриває, як технічне редагування впливає на створення доступного та зрозумілого контенту для різних аудиторій. Заключна частина аналізу розглядає перспективи розвитку видавничої справи, спираючись на зазначені тенденції та рекомендації для оптимального використання технічного редагування в цифровій епохі. Загалом, стаття пропонує глибокий інсайт у взаємозв'язок між видавничою справою та технічним редагуванням, а також вказує на їхню важливу роль у формуванні інформаційного простору сьогодення. Сукупність основних висновків даного дослідження дозволяє зробити висновки щодо видавничої справи та технічного редагування.*

**Ключові слова:** *видавнича справа, технічне редагування, інформаційні технології, інформаційний простір, ІТ у видавничій справі.*