ПЛАТФОРМА 2.
РОЗВИТОК ІНДУСТРІЇ ФІНАНСОВИХ ПОСЛУГ У ЦИФРОВУ ЕПОХУ

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SPECIFIC FEATURES OF THE USE OF ARTIFICIAL INTELLIGENCE IN THE FIELD OF SCIENTIFIC JOURNALISM IN THE DIGITAL ERA

Introduction

In the digital era, the transformation of the media environment and the increasing volume of scientific and popular information pose new challenges to journalism and scientific communication. The relevance of studying the use of artificial intelligence (AI) in scientific journalism arises from the need to increase the speed and quality of content creation, optimise the processing of large volumes of scientific data, and enhance interactivity and personalisation in presenting materials, particularly in the context of finance and economics.

The novelty of this topic lies in the fact that most research has focused on either general journalism or scientific communication, while the intersection of scientific journalism and the financial services industry remains understudied. The subject of the study is the use of AI technologies (generative models, automation tools, algorithmic content management) in scientific and journalistic materials, while the object of the study is scientific journalistic texts on financial, economic, and technological themes produced with the assistance of AI.

Results

1. Generative Tools and Their Specific Features

Modern AI-driven text generation tools such as ChatGPT and Bard enable the automated production of scientific journalistic content, including abstracts, reviews, and summaries [5]. In financial journalism, these tools can automatically aggregate data, generate charts, and produce explanatory commentary [1]. However, these outputs often exhibit stylistic uniformity and a lack of authorial nuance. An analysis of 50 articles (25 AI-assisted and 25 traditional) revealed that AI-generated texts contained fewer references to primary sources and lacked explicit evaluative commentary. Thus, generative tools ensure speed and productivity at the cost of stylistic depth and individual authorship.

2. Quality, Reliability, and Reader Trust

The perception of AI-generated content depends on its transparency and contextual framing. According to Dijkstra et al. [2], science journalism that relies on automated systems risks losing depth and interpretative richness. Our survey of 40 respondents supported this conclusion: AI-generated texts scored 10–15% lower in perceived trustworthiness than human-written ones. These findings are consistent with Gondwe's theoretical observations on cognitive trust and automation bias in journalism [3]. However, when AI-assisted texts included explicit

references, authorial editing, and factual validation, their perceived quality increased substantially [4]. Thus, transparency and editorial oversight are essential for maintaining trust and credibility in AI-assisted journalism.

3. Ethical, Stylistic, and Methodological Constraints

AI-generated journalism faces several limitations. The ethical dimension—ranging from potential misinformation to "hallucinated" references—has been well documented [4]. Stylistically, AI tends to produce homogenised writing lacking argumentative depth and context-specific nuances [8]. Methodologically, AI struggles to reproduce the balance between empirical evidence and analytical interpretation characteristic of scientific journalism [9]. Furthermore, as Pall and Kostarella [7] argue, responsibility for AI-generated content remains ambiguous: the author, editor, or system itself may be held accountable. Interviews conducted for this study confirmed that editors prefer to treat AI as a support tool rather than as a substitute for human authors. Thus, responsible AI use requires rigorous editorial control and transparent accountability mechanisms.

Conclusion

This study demonstrates that the use of AI in scientific journalism offers considerable potential for accelerating and automating the creation of analytical texts in financial and economic domains. However, the findings also highlight significant limitations—stylistic uniformity, reduced trust when AI involvement is undisclosed, and risks of factual and ethical misrepresentation.

The key conclusion is that AI should not replace the human author but rather complement editorial work. A synthesis of machine generation and human editing produces the most balanced and credible results. Future progress requires specialised AI models for financial communication, reliable fact-checking systems, and transparent labelling of AI involvement in scientific and journalistic publications.

References:

1. Cools, H., & Diakopoulos, N. (2024). *Uses of generative AI in the newsroom: Mapping journalists' perspectives.* (2024). *Journalism Practice*, 1–19. https://doi.org/10.1080/17512786.2024.2394558

2. Dijkstra, A. M., de Jong, A., Boscolo, M. (2024). Quality of science journalism in the age of Artificial Intelligence explored with a mixed methodology. *PLoS One*, *18*, *19*(6), e0303367. https://doi.org/10.1371/journal.pone.0303367. PMID: 38889134.

3. Gondwe, G. (2023). Mapping AI arguments in journalism studies. *arXiv*, *Computers and Society*. https://arxiv.org/abs/2309.12357

4. Gutiérrez-Caneda, B., Lindén, C-G., & Vázquez-Herrero, J. (2024). Ethics and journalistic challenges in the age of artificial intelligence. *Frontiers in Communication*, *9*. https://doi.org/10.3389/fcomm.2024.1465178

5. Henestrosa, A. L., Greving, H., & Kimmerle, J. (2023). *Automated journalism: The effects of AI authorship and evaluative attribution.* Computers in Human Behavior, 138, 107445. https://doi.org/10.1016/j.chb.2022.107445

6. Larousserie, D. (July 12, 2025). How AI is shaking up scientific publishing. *Le Monde.* https://www.lemonde.fr/en/science/article/2025/07/12/how-ai-is-shaking-up-scientific-publishing_6743308_10.html

7. Pall, Z., & Kostarella, I. (2023). Journalists' perspectives on the role of artificial intelligence. *MDPI – Societies*, *15*(4), 89. https://www.mdpi.com/2075-4698/15/4/89

8. Sonni, A. F. (2025). Digital transformation in journalism: Mini review on the impact of AI. *Frontiers in Communication*, *10*, 1535156. https://doi.org/10.3389/fcomm.2025.1535156

9. Telytsina, A. Y. (2024). Optimization of scientific activities through AI integration: Neural networks as a tool in working with academic literature. *Monitoring of Public Opinion: Economic and Social Changes*, *5*. https://doi.org/10.14515/monitoring.2024.5.2623

10. Trang, T. T. N., Chien Thang, P., Hai, L. D., Phuong, V. T., & Quy, T. Q. (2024). Understanding the adoption of artificial intelligence in journalism: An empirical study in Vietnam. *Sage Open*, *14*(2). https://doi.org/10.1177/21582440241255241