

REVIEW

by Assoc. Prof. Dr. Evelina Christova, Department of Media and Communication, New Bulgarian University

for the acquisition of the educational and scientific degree "Doctor" in the professional field 3.5. Public Communications and Information Sciences (Media and Communications - Media Language and Style)

with a dissertation on the topic: "Artificial Intelligence Methods for Collecting, Synthesizing, Processing and Providing Information in Journalism",

presented by Ventsislav Ventsislavov Vassilev, PhD student at the Faculty of Journalism and Mass Communication

with scientific supervisor: Prof. Dr. Efrem Efremov

The presented dissertation on the topic "Artificial Intelligence Methods for Collecting, Synthesizing, Processing and Providing Information in Journalism" has a volume of 187 standard pages and is structured in an introduction, three main chapters and a conclusion. The scientific contributions and a list of the author's publications on the topic are presented, as well as a list of tables and graphs. A Bibliography is presented separately. The volume and structure of the work are classic and meet the scientific requirements for a dissertation.

The relevance and significance of the problem developed in the dissertation arise from the growing role of artificial intelligence (AI) in modern journalism. In the era of digitalization and information overload, the media are faced with challenges related to the rapid collection, verification, processing and presentation of reliable information. The use of AI methods in journalism not only optimizes these processes, but also contributes to increasing objectivity, personalization of content and the fight against disinformation. The development of effective algorithms for automated retrieval and synthesis of information is of critical importance for the future of the media and their public role, which makes the topic of the dissertation extremely relevant and of high scientific and practical value.

The work is highly relevant, as it explores the growing role of artificial intelligence in journalism – a field that is undergoing significant transformation. The analysis covers both global trends and specific challenges for the Bulgarian media market, which makes the study valuable for theoretical and practical journalism.

The first chapter "What is Artificial Intelligence (AI)" offers a detailed overview of the development of artificial intelligence, tracing its evolution – from the emergence of the concept

and the main theoretical approaches to modern applications and legal regulations. The different types of AI, key technological achievements and historical moments in the development of automated systems are examined. In addition to technical aspects, the chapter also pays attention to philosophical and methodological issues related to the definition and ethical dimensions of AI.

The second chapter “Artificial Intelligence in the Media” analyzes the specific applications of AI in journalism and the media industry. Examples of automated content creation, news personalization, comment moderation, combating disinformation, and optimizing journalistic processes are examined. The chapter also includes an assessment of the benefits and risks of integrating AI into the media, presenting examples from global practice. Both technological opportunities and ethical and professional challenges related to the use of AI in the news environment are analyzed. “Media Adaptation to the Entry of Artificial Intelligence” is the last chapter, it focuses on the process of media adaptation to technological changes and the implementation of AI. An analysis of global trends and Bulgaria’s position in this context is presented, as well as the challenges and strategies for the successful use of AI in journalism. The author proposes a model for integrating artificial intelligence into the media environment, examining specific technical solutions and approaches for their implementation. The chapter concludes with an assessment of future prospects for the development of the media industry in the context of digital transformation. It should be noted that the proposed tool is developed in detail with different variations and taking into account possible variables.

The dissertation demonstrates excellent awareness of the topic through the use of a rich bibliography of 149 sources, including academic works, reports of media organizations and examples from real practice, which shows the depth of the research. The material is based on reputable academic sources, reports of international institutions and examples from practice, which guarantees the reliability of the conclusions drawn. The work identifies real applications of AI in journalism, analyzes its impact on journalistic practices and points out new aspects of the interaction between technologies and media.

The thesis defended by PhD student Vassilev is: “Artificial intelligence (AI) is on its way to transforming the media industry, as it fundamentally changes the way news content is created, distributed and consumed.”

PhD student Vassilev uses modern methods for analyzing AI in the media, applying them to established concepts in journalism. He argues for the impact of automated algorithms on

editorial processes and presents new dimensions of objectivity and personalization of news content.

The dissertation provides a classification of AI applications in the media, distinguishing the benefits for journalists and users. It also examines the issue of algorithmic objectivity and the impact of AI on the quality of journalistic materials.

The research methodology combines an interdisciplinary approach, combining theoretical analysis with empirical research on the use of AI in the media. This allows for an adequate assessment of its real application and future prospects.

The work offers its own classification of the types of AI applications in journalism, which contributes to a better understanding and systematization of technological solutions in this area. The dissertation includes an analysis of real practices and examples of AI implementation in the media, which contributes to the objectivity of the conclusions. Established research methods for assessing the technological impact on journalism have been used.

I highly and positively appreciate the many appropriately selected visualizations included in various places in the work.

The study supports existing theories regarding the role of technology in the media, supplementing the scientific literature with current examples and case studies. The dissertation demonstrates good knowledge of the existing literature, including an extensive bibliography covering both scientific works and practical research.

The text is clear, well-argued and logically structured. The language used is scientific, with precise terminology, but in places it could be improved stylistically by clearer formulations and avoiding excessive complexity in expression. I cannot but positively note the high degree of literacy in writing the text!

The 24-page abstract consists of an introduction; purpose and objectives of the study; research methods; structure of the dissertation in 3 chapters; main results and scientific contributions; practical significance; and a list of publications and participation in scientific conferences related to the topic of the dissertation.

The dissertation has scientific and practical contributions, some of which include or supplement the classification of contributions proposed on page 194 and which could be categorized in several directions:

- Novelty for science (new theories, hypotheses, methods, etc.)

The work offers a classification of the types of applications of artificial intelligence in journalism, which contributes to a deeper understanding of the processes of automation in the media. In addition, it examines the concept of “algorithmic objectivity” and its impact on journalistic practices, which is an original contribution to research in the field of media and communications.

- Enrichment and critical analysis of existing knowledge

Doctoral student Vassilev conducts a thorough critical analysis of existing scientific works on the topic and offers new interpretations of the role of AI in journalism. Both theoretical studies and practical examples from leading media are included, which contributes to the modernization and expansion of the scientific discourse in this area.

- Application of scientific achievements in practice, realized effect

The study provides practical guidelines for the implementation of AI in editorial processes and can be useful for media organizations that are looking for effective technologies for collecting, processing and distributing information. In addition, the dissertation could support the development of educational programs aimed at digital journalism and the use of new technologies in the media.

Overall, the work has a balanced nature of scientific and practical contributions, successfully combining theoretical analysis, empirical observations and proposals for the real application of the researched concepts.

The results of the dissertation have a wide range of applications both in the scientific field and in journalistic practice. They can be used to develop educational programs and courses in digital journalism and media technologies, which would help future journalists and media professionals to work effectively with AI tools. In practical terms, the study provides guidelines for integrating artificial intelligence into editorial processes, including automation of news content, personalization of information for users and detection of disinformation. In addition, the work could serve as a basis for developing policies and ethical standards regarding the use of AI in the media, which is of particular importance in the context of global discussions on transparency and reliability of journalistic information.

The dissertation is a comprehensive and in-depth study of the role of artificial intelligence in journalism, but there are several aspects that could be further developed in the future scientific

work of the doctoral student:

1. Development of the proposed classifications – The presented classification of AI applications in journalism can be supplemented and tested through specific cases from media practice. Deriving quantitative indicators to measure the effectiveness of various AI solutions would increase the applied value of the study.
2. Ethical and legal aspects – Although the work touches on the topic of ethics and regulation of AI in the media, it could be the subject of more in-depth research, especially in connection with new European regulations and the challenges associated with disinformation and algorithmic bias.
3. Development of practical guidelines for the media – In his future work, the doctoral student could create practical guides for implementing AI in journalistic practice, aimed at editors, journalists and media organizations with the clear awareness that the development in the sector is so dynamic that such a guide could lose relevance too quickly.
4. Continuation of scientific work and publications – I recommend that doctoral student Vassilev publish the results of his research in order to popularize his findings and contribute to the development of the scientific discussion on the topic.

These guidelines would contribute to upgrading the presented research and would expand its influence in both the academic and practical spheres.

I would like to express my satisfaction with the fact that a number of the specific comments received during the internal defense were taken into account and found their place in the final version of the text.

I consider the choice of writing the cited literature as unusual. I do not recommend changing it, because it would be laborious, and in essence one of the possible standards has been met. I simply acknowledge that it is difficult for the reader to leaf through or "scroll" to the long list at the end of the work to check who the doctoral student referred to for the specific statement.

In conclusion, I express my clear and unequivocal positive opinion that Ventsislav Vassilev should be awarded the educational and scientific degree "doctor".

April 15, 2025

Reviewer

Assoc. Prof. Dr. Evelina Christova