



OPINION

by Prof. Dr. Nikolay Mihaylov,
Sofia University, Faculty of Journalism and Mass Communication
for obtaining the educational and scientific degree "Doctor/PhD" in the professional field

3.5. Public Communications and Information Sciences (Media and Communications – Media Language and Style)

with a dissertation on the topic: **" Models of AI for gathering, synthesis, processing and providing information in journalism"**, presented by Ventsislav Ventsislavov Vassilev, a full-time doctoral student in the Department Press journalism and book publishing of the Faculty of Journalism and Mass Communication

with scientific supervisor: Prof. Dr. Efrem Efremov

I. Assessment of the qualities of the dissertation text

The work proposed for review is structured in a preface, three chapters, a conclusion, a bibliography of 149 titles, a reference to scientific contributions and a list of publications related to the topic of the study. The total volume of the work is 206 pages. The candidate's dissertation research is dedicated to a topic that, in addition to being extremely topical, has various aspects, as his research attention is focused on the specific thematic area of journalism. This gives, in addition to relevance, specificity and scientific originality to the dissertation work, and the researcher has concentrated on an extensive analysis of the consequences of the application of artificial intelligence in journalism ("algorithms for personalized provision of news content", p. 9) and the methods for its research together with the consequences of this in a social and even general cultural plan. The thesis of the dissertation sounds debatable and well-argued: "Artificial intelligence (AI) is fundamentally changing the media industry by automating the generation and editing of news, which leads to efficiency and reduction of production costs" (p.24). The literature used is of considerable volume and includes important and significant publications on the topic. Also, doctoral student Vassilev has described four articles on the topic of the dissertation in scientific journals and collections with scientific review. Participations with section reports in national and international conferences, again on the topic of the dissertation, are separately indicated. Among the publications there are also those in journals



indexed in global databases. With the described activities, the doctoral student fully fulfills the provisions of the law and the implementation of the minimum national requirements under the relevant procedure. The abstract faithfully conveys the main idea of the research, is detailed and reflects its contributing moments, thereby meeting the requirements for referencing such work.

The overall impression is of a diligent and academic approach to shaping the content of the dissertation, reflecting a serious scientific and research commitment to the topic on the part of the doctoral student.

II. Characteristics of scientific and research results.

In our era of digitalization and the omnipresent presence of information through online media, an extremely rapid transformation is necessary on the part of journalists in collecting, processing, analyzing and disseminating the information flow that they monitor. Often, human efforts in this regard are limited and it is necessary to turn to other ways and methods in this field, which require the application of artificial intelligence. The consequences for the media from the application of artificial intelligence are very wide-ranging, which undoubtedly has a strong transformative potential - for journalism, for the journalistic profession and for the personality of journalists. The emergence of artificial intelligence in journalism affects, in addition to the nature and creation of news and media content, it also affects the specifics of the journalistic profession, the overall structure of the media industry, as well as relations with the audience. This observation makes the text of doctoral student Vassilev extremely relevant and, I would even say, necessary for the contemporary dimensions of the journalistic profession.

The three chapters of the study are structurally unified and follow the logic of the scientific task and the proof of the scientific hypothesis set at the beginning. The first chapter presents the theoretical foundations of AI, examining the evolution of programming, the basic concepts and key stages in the development of AI. The author pays attention to the classification of types of artificial intelligence and its subfields. The legal framework of the European Union related to the development and regulation of artificial intelligence is examined and analyzed in detail and skillfully. The second chapter of the dissertation focuses on the application of AI in journalism and the media. Successful examples are considered in which artificial intelligence has already



been integrated into journalistic processes and editorial activities. The author also dwells on additional examples of full automation of processes in journalistic activities, the specifics of creating algorithms for generating news, automated translations, audio processing and other activities performed with the help of artificial intelligence. The third chapter successfully describes the author's original concept for a self-developed model of the application of artificial intelligence in the field of the media market in our country, but also with an important analysis of media activities established worldwide. It aims to create a working model of using AI technology, which goal has been achieved independent result in the field of the research topic.

The author adheres to an interdisciplinary approach, successfully examining various aspects of the problem - technological, legal and social. The existing practices, the regulatory framework and the possibilities for integrating artificial intelligence into the media have also been thoroughly analyzed. In the presentation, the doctoral student has presented a number of relevant examples to illustrate the extent to which artificial intelligence is integrated into various journalistic processes and activities. Special attention is paid to the phenomenon of automating news writing from structured data without editorial intervention. In addition to these important analyses, the doctoral student also focuses on the significant ethical, social and professional issues raised by the use of artificial intelligence in the entire diversity of journalistic professions. The author's study of the automation of decoding by artificial intelligence of live reporter inclusions on air for the needs of online publishing creates a very good impression of the colleague's undoubted research qualities. Argumentative conclusions are required that artificial intelligence plays an increasingly significant role in specific journalistic activities such as creating reports, in news, creating images and other visual products and, in general, it is becoming an inseparable part of modern media, media content and the media industry.

A strong research impulse is brought by the original and independent proposal of the doctoral student to create a system assistant based on the principles of artificial intelligence, aimed at optimizing the editorial news process and the overall work of modern journalists. I would like to note that the style and language of the presentation correspond to the subject of research and are at the necessary scientific level, while at the same time being fully perceived and making



the work accessible to all involved in the complex problems of the journalistic profession in the era of decisive technological change.

III. Scientific contributions of the study.

The conclusions of the dissertation research have an undeniable and very important contribution. Personally, for the first time I come across a detailed, systematic and supported by empirical arguments and theoretical justification study of the key role of artificial intelligence in the transformation (automation) of journalistic processes. I fully accept one of the author's main generalizations about artificial intelligence not only as a tool for optimization, but as a key factor that transforms the very essence of media production and consumption. Here I can also note a philosophical problem that the author poses – that of the relationship between man (professional) and machine (AI), as his idea is that the latter should not replace man in the complex but extremely responsible journalistic profession, but should be used skillfully and transparently by journalists in the coming technological era. This is how I read the doctoral student's contributions for specific guidelines that can serve as the basis for creating future digital intelligent assistants for the Bulgarian media environment.

IV. Conclusion

In conclusion, I would like to note that in the presented dissertation text, doctoral student Ventsislav Vassilev proves his in-depth knowledge in the field of media, of the communication and media environment not only in our country, of the problem of artificial intelligence as a phenomenon of the modern social world, which affects all its areas, especially journalism as an activity, profession and vocation. The presented dissertation bears all the marks of a successful and independent scientific research. The competence of the dissertation student in terms of authors, publications, concepts, detailed knowledge of the subject and object of his research is indisputable. The appendices, diagrams, graphs and visualizations included in the dissertation work additionally illustrate and systematize the work of the doctoral student on his theses, reasoning, explanations and the scientific methods used.



Having highly and unequivocally positively assessed the knowledge and research qualities demonstrated by the doctoral student, **I vote "YES" to confer on the doctoral student Ventsislav Ventsislavov Vassilev the scientific and educational degree "Doctor/PhD" in the professional field 3.5. Public Communications and Information Sciences (Media and Communications - Media Language and Style) for his dissertation "Artificial Intelligence Methods for Collecting, Synthesizing, Processing and Providing Information in Journalism".**

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Prepared by: Prof. Dr. Nikolay Mihaylov