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## ***Perspectives on the use of Generative Artificial Intelligence in Primary Education<sup>2</sup>***

### **Extended summary**

This paper looks at the application of generative artificial intelligence in primary education in the Republic of Serbia. The aim of the paper is to formulate ethically responsible and systemically feasible recommendations and guidelines for the effective integration of generative artificial intelligence tools into the teaching process, with the purpose of improving the quality of didactic practice and providing a foundation for the development of professional development programs and national institutional policies. Additionally, the paper seeks to provide a comprehensive overview of the level of awareness, attitudes, and practices of teachers regarding the use of generative artificial intelligence in primary education in the Republic of Serbia.

The theoretical framework of the paper includes defining the concepts of artificial intelligence, as well as a review of the previous research in this area at global and local levels. Studies available in the scientific literature can be classified into three main research strands: review and theoretical papers, empirical studies, and legal and ethical aspects. Based on this classification, it is possible to situate the present research within a broader framework, with a clear

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2 The paper is a modified text of the specialist paper entitled *Перспективи використання генеративних вештачких інтелектуальних систем у основному освітньому процесі [Perspectives on the use of Generative Artificial Intelligence in Primary Education]*, defended on October 26 2025 at the Faculty of Organisational Sciences of the University of Belgrade (under mentorship of Prof. Dr Ivan S. Luković).

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tendency to connect general theoretical assumptions, empirical insights, and technological innovations.

The research methodology presented in this paper is based on an empirical approach, whereby the obtained results can be integrated into the existing theoretical and methodological framework and thus contribute to further research in the field of generative artificial intelligence in education. In addition to its scientific significance, the paper also has a social contribution, as the results may be used to practically address the challenges faced by teachers within the educational system of the Republic of Serbia. The target population of this study includes primary school teachers across the entire territory of the Republic of Serbia. A questionnaire created using the Google Forms platform was employed as the quantitative research method. The questionnaire consists of a total of 48 questions, and 286 teachers participated in the study which was conducted in September 2025.

The research results indicate that teachers are familiar with the concept of generative artificial intelligence and generally hold positive attitudes toward the use of these tools in teaching, perceiving the greatest benefits in the improvement of teaching materials and administrative tasks. ChatGPT is the most dominant generative artificial intelligence tool used by teachers in their methodological and didactic work, which is consistent with the findings reported in the reviewed scientific and professional literature. The greatest challenges associated with the application of generative artificial intelligence tools, as perceived by primary school teachers in the Republic of Serbia, relate to the potential loss of critical thinking, independence, and creativity among students, as well as misuse, cheating, and plagiarism. The study also provides insights into teachers' attitudes toward professional development and training.

The obtained results contribute to a better understanding of the current state of practice, as well as to the formulation of specific recommendations for further development of tools and training, thereby encouraging the responsible and purposeful application of artificial intelligence in education.

**Keywords:** artificial intelligence, digital technologies, ethical issues, primary education in Serbia

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