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USE OF ARTIFICIAL INTELLIGENCE (AI) IN THE EDUCATION SYSTEM – A COMPARATIVE ANALYSIS OF SERBIA AND ITS NEIGHBOURS

The concept of modern education has been in a constant state of flux in the 21st century, influenced by new technologies that redefine the paradigm of traditional learning models. Artificial intelligence (AI) has already been a topic for debate for years. – However, its rapid development and use across numerous fields have only recently gained momentum. Leading nations worldwide, along with governmental and non-governmental sectors, have quickly recognised the advantages of AI and begun its implementation. The benefits of using AI have been swiftly acknowledged both in the education system (primary and secondary schools, universities) and in cultural institutions (museums, archives, libraries). This paper examines the current state of AI application in the education systems in Serbia and its neighbours, highlighting the specificities of AI implementation in these countries. Special attention is dedicated to the use and analysis of advanced platforms in education, such as ChatGPT, MidJourney, and HeyGen. With their transformative potential, these technologies are reshaping traditional teaching models and steering the education process toward modernisation. However, the modernisation also entails the integration of intelligent technological-pedagogical knowledge about content, and offers opportunities to combine technological competencies with teachers' (educators') pedagogical skills in AI. The potentials for personalised learning are expanding, allowing educational materials to be tailored to the specific needs and abilities of each pupil or student, which could ease the workload for teachers and other educators, including administrative school staff. This enables the introduction of more modern curricula and didactic teaching materials, fostering a more creative environment for working and learning. Additionally, new technologies significantly streamline certain administrative tasks across all levels, from preschool institutions to universities and education centres. The authors of the paper present the characteristics

of the current state of AI use in Serbia and neighbouring countries, and through a comparative analysis, explore the potential uses of AI in education, as well as the challenges and risks arising with new technologies. This comparative approach provides an insight into the progressiveness, inclusivity, and technological orientation of the education environment.

Keywords: AI, education system, personalised learning, Serbia, comparative analysis