

## **Editorial**

# **EDUCATION AND ARTIFICIAL INTELLIGENCE**

## **Dean's Speech**

The first conference on Education and Artificial Intelligence was held at the Pedagogical Faculty in Vranje, and it will take place every two years. It was organized in a hybrid format, and its aim is to explore the concept of innovating education through the use of AI from both theoretical and practical perspectives across various scientific fields. Special attention was devoted to the place, scope, and role of AI in education, teacher professional development, identifying its potential to enhance education, and the challenges facing this rapidly growing field.

The thematic areas of this international conference are:

1. Social and theoretical aspects of AI and education;
2. Empirical and theoretical aspects of AI's contribution to the educational process;
3. Technical aspects and contributions of AI application in education.

We hope that this first conference, through its outcomes, will serve as a platform for further research on the implementation of AI in education, as well as for sharing knowledge about this concept among faculties, educational policy makers, and the broader public. Through the synergy of participants from Serbia, Macedonia, Bulgaria, Bosnia and Herzegovina, Italy, Russia, the USA and Poland, we expect a strengthening of the academic community's capacity, as well as raising awareness about the impact AI—whose popularity is growing—can have on education and society as a whole.

It can be said with certainty that this conference addresses a topic of lasting relevance, as the accelerated digital transformation continuously expands the possibilities for AI implementation in education. Alongside this, there is a need to assess the extent and limitations of AI's application in the contemporary school.

Our gratitude to all participants in this scientific conference is even greater considering that there are still few studies on this topic. Changes in education are at the very beginning. AI is only starting to enter education, which requires greater efforts to shed light on this issue. Moreover, it causes some apprehension among teachers due to resistance to the unknown and the need to learn new ways of working. The fact is that innovations have always entered the educational process more slowly than they have penetrated other areas of life. However, there is a growing effort within educational circles to keep pace with technological changes and the digital transformation, as well as the implementation of AI in the process of work and life in general.

Good teachers, as professionals aware of their role in children's lives, must keep up with the time and development of science and modern technologies. AI is the future that has already begun, and its potential is enormous. There are numerous possibilities for applying AI to improve teaching and learning processes. It is a significant support tool that helps teachers provide a better educational experience for students and enhance their own practice. For this reason, the academic educational community is not only awakening but often leading the

transformative potential of AI. In this, opportunities for overall accelerated progress are recognized, and the role of education in a society that learns and changes through learning is becoming more and more pronounced.

AI, as the topic of this multidisciplinary scientific conference, is the most current global phenomenon and thus a research problem that directly or indirectly affects all segments of society. Whatever we do, AI has to be used. It represents the most interesting and complex area of development. From this first thematic conference onward, every two years, the Pedagogical Faculty in Vranje will continue to gather experts researching the potential for changing the educational system under the influence of AI. Without more intensive study, application, and dissemination of discovered possibilities and effects, AI cannot become either a subject of consideration or a means to raise teachers' competencies for its use. That is precisely the aim of this conference and the intention of pedagogical faculties—to step into new technological challenges and, as teachers to teachers, illuminate the perspectives and challenges of applying AI in education.

In this way, the efforts of the academic and professional community in the field of AI, such as this scientific conference, contribute to strengthening human resources. These are exceptional opportunities for exchanging knowledge and experience among many countries on various aspects of AI, as well as for networking and joint capacity building. This is especially important for proper risk management of AI, which is the greatest responsibility in its application. In this regard, numerous challenges face the educational system of every country and determine the fundamental professional competencies of teachers.

This conference is an opportunity for pedagogical faculties to affirm themselves regarding knowledge and readiness to follow, research, and implement the most contemporary global scientific trends in technical-technological development. In conditions of an explosion of scientific knowledge and unprecedented speed of scientific-technological evolution, pedagogical faculties must be and are dynamic and adaptable systems in which modern achievements are increasingly integrated. This is because we are responsible for preparing young generations for life and work in times of ever-accelerating changes in all areas of human existence. That is why we say that we are the fundamental builders of the future.

Numerous important questions that will be raised at conference from the framework of this problem will provide only some of the answers in terms of the demands of society and the profession improvement of education. Pedagogical faculties, among other things, thus show that they keep pace with the times, the development of science and technology, and new principles for optimizing educational work at all levels of education. Through this, the academic educational community demonstrates remarkable readiness to respond quickly and efficiently to the permanent innovation of the educational system and the training of future teachers.

The results of the conference are expected to form the basis for further development of AI in education, as well as for the exchange of experiences and educational models in these fields and alignment with trends in the region and beyond. We hope that the experiences of the conference will be multiply beneficial both for the participants and for the development of the technical-technological educational domain.

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