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Editorial

The Editorial Board of International Journal of Research in E-learning (IJREL) is privileged to present a new volume 11(2) 2025. The content of the current issue was divided into four chapters and include eight articles. The first is devoted to Theoretical and Practical Aspects of Using Artificial Intelligence (AI) in Education. The second contains articles concerned with Methodological and Technological Aspects of Innovational Approach in Education", and contains three articles. The third includes research results on Immersive Technologies in Education. The fourth chapter is called Reports.

Chapter I is entitled "Theoretical and Practical Aspects of Using Artificial Intelligence (AI) in Education", and contains two articles.

The first article of the volume, titled "Determinants of Students' Perceived Usefulness of Large Language Models: The Role of Relevance, Enjoyment, and Ease of Use" was prepared by Snježana Babić from the Faculty of Informatics, University of Juraj Dobrila in Pula, Croatia. The author's Perceived Usefulness (PU) is a key determinant of technology acceptance and use. As Large Language Models (LLMs) such as ChatGPT become more common in higher education, it is essential to identify factors shaping students' perceptions of their usefulness. Grounded in the Technology Acceptance Model (TAM), this study examined the effects of relevance to academic learning, perceived enjoyment, and Perceived Ease of Use (PEOU) on PU. The study involved 102 students from a Croatian university and used Spearman correlation and multivariate regression analyses. All three factors showed significant positive correlations with PU; however, regression results indicated that only relevance to academic learning and perceived enjoyment were significant predictors. Together, they explained 71.8% of the variance in PU, while PEOU played a minor role. The findings highlight the need for pedagogically relevant and engaging LLM-based tools to support their effective integration into higher education.

Lucie Zormanová and Šárka Čípová, authors from Poland and Czech Republic, prepared the article titled: "The Use of Artificial Intelligence in Academic and Personal Life of Students of Pedagogy". This study compares how pedagogy students in the Czech Republic and Poland use artificial intelligence in academic and personal contexts. Using a quantitative questionnaire distributed to 275 students

from five universities in both countries, the research examined usage patterns and perceptions of AI. The results show that AI is widely integrated into students' academic routines, with Polish students using it slightly more frequently. The most common applications include information retrieval, preparing presentations, writing assignments, translation, grammar checking, and clarifying difficult topics. Students view AI as useful for their future teaching careers and express interest in further training, while also recognizing ethical and informational risks, and often verifying AI-generated content. Differences emerged between the two countries in frequency of practical use, perceived awareness, and attitudes such as feelings of guilt. The study highlights the need for systematic AI integration in education and the development of digital competencies in an international context.

Chapter II is titled "Methodological and Technological Aspects of Innovational Approach in Education", and contains three articles.

The manuscript titled "Low-Cognitive-Load Games as Attentional Support: A Scoping Review for Gen Z Learners" was prepared by Juraj Kovalčík, Magdaléna Švecová, Michal Kabát, and Martin Paučin, experts from the University of Ss. Cyril and Methodius in Trnava, Slovakia. The researchers analysed the generation Z learners, who often experience reduced attention and memory in digitally saturated learning environments. While technology-driven distractions and social media use are associated with poorer academic outcomes, emerging research suggests that low-cognitive-load digital activities – such as casual games, electronic fidgets, and short micro-breaks – may help sustain engagement. This scoping review maps studies published between 2010 and 2025 on digital micro-breaks, fidgeting tools, and low-demand activities in learning and work contexts, following PRISMA-ScR guidelines. The analysis of 33 studies indicates that brief, voluntary, low-effort activities can restore attention, reduce fatigue, and improve affect without impairing task performance, particularly when compared to more demanding interruptions. The findings also highlight the importance of timing, context, and learner control. However, evidence on memory effects and direct educational applications remains limited. Further experimental research in educational settings is needed to evaluate purposefully designed low-cognitive-load tools as attentional supports for Gen Z learners.

A Scratch-Based Simulation of Virus Spread as a Constructionist E-Learning Project" was developed by Maria Wisniewska from Public General High School of the Lodz University of Technology, Poland, and Zbigniew Wisniewski, from Lodz University of Technology, Poland. This qualitative case study examines a Scratch-based simulation project created by a primary school student during remote learning. The study investigates how designing a simple agent-based model in a visual programming environment supports the development of digital and computational competences. Data from the Scratch artefact, competition materials, and a retrospective interview reveal that creating the simulation fostered key computational practices, including decomposition, iterative refinement, problem-solving, and

reasoning about causal relationships. The findings highlight the value of accessible programming tools in supporting constructionist learning through the design and testing of executable artefacts. The study also suggests that simulation-based projects can enhance remote and hybrid education by promoting active experimentation and reflection, while noting limitations related to its single-case design.

Kamila Szwed and Anna Bąkała from Global Consulting Corporation, Poland, prepared the article titled "Decoding User Experience in Instructional Design for e-learning project". E-learning has become a key medium for delivering knowledge and skills, yet its effectiveness largely depends on how well it addresses users' needs and expectations. User Experience (UX) design plays a central role in the success of e-learning solutions and requires clear communication among Instructional Designers, stakeholders, and Subject Matter Experts. This article examines the relationship between UX and Instructional Design in e-learning projects, identifying principles and practices that support engaging and effective learning experiences. Based on an analysis of current trends, case studies, and expert in sights, the study proposes strategies to enhance learner engagement, satisfaction, and educational outcomes. It also presents a tool to support the interpretation and assessment of UX elements during e-learning project development, offering a practical roadmap for user-centered instructional design.

Chapter III is titled "Immersive Technologies in Education", and includes two manuscripts.

"Through University Students' Headsets: To Immerse or Not to Immerse in New Learning Experiences" was prepared by an international team of Authors – Iwona Mokwa-Tarnowska from Gdansk University of Technology and Viviana Tarnowska from Cranfield University. The researchers stressed that integrating technology-enhanced learning into university curricula requires a shift from traditional teaching toward active and collaborative learning approaches. Virtual reality (VR) is a promising innovation that can support immersive and interactive learning environments. This study examines students' perceptions of whether integrating VR into university courses increases their interest in understanding complex phenomena and enhances engagement and learning outcomes. The analysis is based on survey data collected in June–July 2025 from bachelor's and master's students at Gdansk University of Technology. The findings highlight both the perceived educational potential of VR and the instructional design challenges associated with its effective implementation in higher education.

Sobia Yasmeen, from the University of Bari Aldo Moro, Education, Psychology, Communication Sciences, Italy, prepared the manuscript titled: "Immersive Technologies (AR/VR) for Enhancing Learning in Multicultural Classrooms: Addressing the Needs of International Students". The researcher emphasizes that globalization has increased the cultural diversity of European universities, while also creating challenges for international students related to language barriers, cultural adjustment, and well-being. Immersive technologies such as Augmented

and Virtual Eeality (AR/VR) have emerged as innovative tools to address these issues by supporting inclusive, engaging, and motivating learning environments. This theoretical study analyzes recent literature within the European context, with a particular focus on Italy, using sociocultural theory, cognitive load theory, and self-determination theory as analytical frameworks. The paper identifies key challenges and practical solutions for implementing immersive technologies in multicultural classrooms. The findings suggest that inclusively designed AR/VR environments can enhance psychological safety, intercultural competence, student engagement, and deep learning in higher education.

Chapter IV is called "Reports", and includes one article.

Eugenia Smyrnova-Trybulska from the University of Silesia in Katowice, Faculty of Arts and Educational Sciences in Katowice, Poland, coordinator of the DLCC2025 conference, prepared "A Report from the International Scientific Conference "Theoretical and Practical Aspects of Distance learning" DLCC2025 (www.dlcc.us.edu.pl) subtitled: "E-learning & Interactive Learning. Generative Artificial Intelligence (GAI), Gamification and Immersive Technologies (AR/VR) in Educational Practice and Research". The 17th edition of the International Scientific Conference, "Theoretical and Practical Aspects of Distance learning" was held under the theme of "E-learning & Interactive Learning. Generative Artificial Intelligence (GAI), Gamification and Immersive Technologies (AR/VR) in Educational Practice and Research" on October 15th and 16th, 2025, at the University of Silesia in Katowice. It was organised by the Faculty of Arts and Educational Sciences in Cieszyn, Faculty of Social Sciences, the Faculty of Computer Science and Materials Sciences in Sosnowiec, the Institute of Pedagogy, and the Institute of Computer Science, University of Silesia in Katowice, Poland.

This volume brings together diverse studies exploring the dynamic transformation of e-learning and educational practice driven by artificial intelligence, immersive technologies, and user-centered design. Together, they emphasize the importance of pedagogical relevance, engagement, inclusivity, and thoughtful instructional design in effectively integrating innovative technologies across diverse educational contexts and levels.

The Editorial Board extends its best wishes to all readers for continued inspiration, curiosity, and enthusiasm in exploring innovative approaches to teaching and learning. We trust that the insights presented in this volume will support scholarly endeavors, enhance educational practice, and inspire confident experimentation with emerging technologies. It is our hope that these contributions will stimulate further research, foster meaningful collaboration, and strengthen a shared commitment to shaping the future of education.

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