EDUTUS UNIVERSITY

EDUTECH HUNGARY

EDTECH SUMMIT HUNGARY

Edtech Conference & Exhibition

June 13, 2025 Budapest

NATIONAL RESEARCH, DEVELOPMENT AND INNOVATION OFFICE HUNGARY

PROGRAM FINANCED FROM THE NRDI FUND

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National Research, Development and Innovation Office Hungary
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Greetings

Dear Reader,

It is with great pride and enthusiasm that I welcome you to this special edition, published on the occasion of the EdTech Summit Hungary 2025.

This publication is more than a simple overview — it is a testament to the growing strength and strategic importance of Hungary's educational technology ecosystem. Through the lens of EduTech Hungary Plc, the pioneering role of the EdTech Coalition, and the unwavering commitment of the coalition member, Edutus University, we explore the dynamic forces driving digital transformation in education.

The 4th edition of EdTech Summit Hungary, held on June 13, 2025, reaffirmed what we firmly believe: that education must evolve in tandem with technology and that Hungary is ready to take a leading role in this journey. The Summit was not just an event — it was a catalyst. A platform for meaningful exchange. A meeting point for educators, innovators, policymakers, and industry leaders who understand that shaping the future of learning requires continuous, collaborative effort that transcends national boundaries.

As you turn these pages, I invite you to engage not only with the insights and initiatives presented, but with the broader vision they represent. A vision of education that is inclusive, forward-looking and deeply interconnected — both within our borders and across the global landscape.

Thank you for joining us on this journey of transformation and possibility.

Flóra Rétfalvi PhD
CEO
EduTech Hungary Plc

National Research, Development and Innovation Office Hungary
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Greetings

Dear Reader,

It is an honour to greet you on behalf of Edutus University and to welcome you to this special publication celebrating the EdTech Summit Hungary 2025.

This international event represents a key moment for us — not only as hosts, but as active contributors to the evolving field of digital education. As one of the founding institutions of Hungary's EdTech Coalition, Edutus University is proud to support initiatives that promote collaboration, innovation, and academic excellence on a global scale.

The Summit serves as a bridge between education and technology, research and practice, tradition and transformation. By bringing together professionals from over fifteen countries, we create a unique space where new ideas can emerge, where challenges can be discussed openly, and where partnerships can take root. It is our belief that meaningful progress in education begins with open dialogue and shared responsibility.

We are especially committed to fostering the next generation of scholars and changemakers. That is why we place strong emphasis on supporting student participation, research dissemination, and cross-border academic exchange — all of which are essential to building a more inclusive and future-ready educational landscape.

Thank you for joining us in this important conversation. We hope that the insights and initiatives highlighted in these pages will inspire further collaboration, and that together we can continue shaping a smarter, more connected future for learners everywhere.

Dr. Andrea Némethné Gál
rector
Edutus University

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EdTech Summit Hungary and its mission

The EdTech Summit was established with the goal of fostering dialogue and collaboration between the fields of education and technology in response to the challenges of a rapidly changing digital world. The event recognized the growing social and economic need for education to keep pace with technological advancement and the importance of creating a forum where stakeholders can learn from each other and co-develop forward-looking solutions.

The idea and initiative for the event originated from EduTech Hungary Plc, which is dedicated to developing and connecting the Hungarian educational technology ecosystem.

2023

MCC Training Centre on Tas vezér Street

- 10 exhibitors
- 15 speakers
- 8 workshops
- 200+ participants

2024 WINTER

Moholy-Nagy University of Art and Design

- 15 exhibitors
- 4 workshops
- 20 speakers
- 260 participants

2024 SUMMER

Ludovika University of Public Service

- 20 exhibitors
- 30 speakers
- 2 workshops
- 3 international seminar presentations
- 300+ participants

Universities have played a key role in the realization of the EdTech Summit Hungary events, each time embracing the initiative as professional co-organizers and supporting its implementation. Acting as a central hub, the EdTech Coalition connected these institutions and brought together the necessary partnerships to ensure the success of each summit. This collaborative model was first established in 2023 and in 2025 with Edutus University and has since laid the groundwork for a growing tradition that brings an expanding network of stakeholders together to shape the future of education.

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EduTech Hungary Plc - building community, sharing knowledge

What happens when education and technology come together with purpose, creativity, and care? At EduTech Hungary Plc, this question drives everything we do.

We are a vibrant hub at the crossroads of education, innovation, and community. Our mission is simple yet ambitious: to bring together the people shaping the future of learning — from teachers and students to developers, researchers, and policymakers. We believe that digital education isn't just about devices and platforms; it's about building meaningful connections that empower everyone involved in learning.

Our work spans some of the most pressing and fascinating topics in education today: artificial intelligence in the classroom, digital well-being for children, the growing importance of STEAM subjects, and how we can build safe, inclusive digital environments for all learners. Whether supporting teachers with practical tools or helping schools find balance in a hyperconnected world, we are part of the conversations that matter.
Our reach doesn't stop at Hungary's borders. As Hungary's representative in the European EdTech Alliance, we bring fresh European insights home and channel local voices into the broader international dialogue. One of our flagship collaborations, the TechWell Erasmus+ project, connects six countries to help schools put digital well-being into practice — not as a buzzword, but as a shared value.

We also initiated the foundation of the Hungarian EdTech Coalition — a growing professional network that includes universities, startups, educators, and tech leaders. Through working groups on topics like AI, public and higher education, and policymaking, we act as a think tank and incubator for bold ideas. Our approach is practical and community-driven: from club-style meetups to large-scale conferences, we create space for collaboration, experimentation, and progress.

One such space is EdTech Summit Hungary. Alongside with this, we organise events like the Digital Child Wellbeing Conference and SEND Information Day, opening up discussions and sharing tools that make digital education more human, inclusive, and effective. In 2024, we also launched Hungary's first DigiEduHack, where young minds brought forward ideas that earned international recognition — proof that the next generation is ready to lead.
At EduTech Hungary, we don't just support the digital transition — we would like to shape it and that's why we created EdTech Summit Hungary among others. With every project, partnership, and event, we aim to make digital education more accessible, meaningful and future-ready.

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Edutus University – a driving force behind innovation and partnership

Edutus University is a young, dynamically developing, environmentally conscious university. The main aim of the institution is to strengthen the character of a "knowledge center" by strengthening its relations with the public education and business spheres.
At Edutus University, we train business professionals in four areas: business and management, commerce and marketing, international business, and tourism and catering. Our institution has close cooperation with several companies as we are the only higher education institution in Komárom-Esztergom County to be at the forefront of entrepreneurial universities.

Our institution provides a wide range of services. In dual training, theoretical training takes place at the university, while practical training takes place in a company working with a higher education institution. The Technical Institute has established and maintains an extensive, multi-level network of contacts with the Hungarian factories of large international companies that have set up in the industrial parks of Komárom-Esztergom County, as well as with companies founded and owned in Hungary. Hosting the International Week Programme since 1995 we have hosted approximately 2500 students from across Europe. In terms of participants, we are open to expanding to other countries. We are pleased that recently Chinese students studying at Edutus have also expressed their interest in taking part in the event.

Edutus University participates in projects such as DigitalTech EDIH, Centre For Digital Competence In Education and Infrastructure, Skills Development For Practice-Oriented Higher Education and Erasmus Programme. Edutus, currently offering mobility opportunities to students based on bilateral agreements with 44 higher education institutions abroad. Active participation in EU projects helps the university operate more efficiently and competitively and can enrich the university community and study programmes. The university also has submitted proposals for several direct EU-funded Horizon and Erasmus projects in an international consortium.

By late 2023, a new brand called EduDigiTech was established to encompass all of Edutus University's tech competitions. What are these competitions? The Edu Hobby Drone Cup, Edu Agro Drone Cup, Edu Robotics Cup, and World Robot Olympiad are competitions organised by the company's domestic subsidiaries and its subsidiaries in 11 other countries.
In order to strengthen our partnership among domestic and international academic playground we have strong collaboration with following stakeholders: Hungarian Edtech Coalition, Artificial Intelligence Coalition, Blockchain Coalition, Hungarian Drone Coalition, Hungarian University Sports Federation (MEFS), Federation of Adult Educators, Hungarian Rector's Conference, 5G Coalition.

Also, the Edutus University aims to build its relations with the public education and business abroad and build new ways of cooperation so that its services can promote the competitiveness of the region.

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Main themes and objectives of the 4th edition of EdTech Summit Hungary

EdTech Enterprises – Edtech collaboration between business and academia

Digital Wellbeing in schools

EdTech overview in different European countries

Higher education interoperability

Smartphones in students' learning activities (K12) – usage, restrictions and effects

EdTech trends in your country

The selected topics for the fourth edition of EdTech Summit Hungary were chosen to address the most urgent and transformative issues currently shaping digital education in Hungary and across Europe. From cross-country benchmarking and emerging national trends to the ethical and practical challenges of smartphone use in K12, each theme reflects a deliberate effort to align educational innovation with both local needs and global trajectories.

A strong emphasis was placed on building bridges—between education and industry, between digital use and student wellbeing, and between isolated institutional systems through improved interoperability. By focusing on these interconnected domains, the Summit provided a strategic platform to accelerate Hungary's digital education maturity, support evidence-based policymaking, and foster innovation that is both sustainable and inclusive.

These themes were not only timely, but also instrumental in guiding systemic change—ensuring that Hungary's educational ecosystem is future-ready, equitable, and resilient in a rapidly evolving digital world.

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Short summary of speakers' presentations

1. Digital Competence, Learning Sciences and Pedagogical Innovation

Focus: *how teaching and learning are evolving through research-based and practical approaches in the digital age*

Critical thinking and digital competence in the age of “digital natives”

Enikő Szakos

head of strategic development department
Ludovika University of Public Service

The notion that members of the younger generations - often referred to as "digital natives" - possess an inherent ability to use technology effectively is increasingly being questioned. While these individuals tend to interact with digital tools confidently and frequently, this does not automatically translate into purposeful, critical, or informed use. True digital competence requires structured guidance, a strong knowledge base, and the development of critical thinking skills.

Educational systems are beginning to incorporate training in digital literacy and artificial intelligence, though these efforts still trail behind the rapid pace of technological innovation. However, the traditionally slower pace of education serves an important function: preserving cultural values, transmitting foundational knowledge, and preparing responsible citizens. The uncritical adoption of educational technologies poses risks, particularly given the lack of independent, rigorous research on their long-term effectiveness.

A balanced approach is therefore essential - one that integrates digital tools while maintaining the value of analogue experiences such as reading, speaking, and reflective thinking. Developing digital competence is one of the many educational goals - not the sole or primary one - and it must be aligned with the learner’s age and developmental stage. Without intentional instruction and modeling, the next generation may lack the capacity to navigate digital environments in a meaningful and responsible way.

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Short summary of speakers' presentations

Retrieval Practice and Improving Mathematics Learning Outcomes

Over the past two decades, advances in cognitive neuroscience and brain imaging have increased and radically changed our knowledge about the learning process.
These new findings provide hope and direction for improving the effectiveness of mathematics teaching and learning. We aim to implement these findings into school practice. Research has shown that the key to long-term knowledge is retrieval. Retrieval practice - also called test-enhanced learning - is a learning strategy where the focus is not on getting information “in”, but on getting information “out” of students’ heads.

It can refer to any activity (such as questions during class, quizzes, flashcards, brain dump, and examination questions) that requires retrieving information from memory without the help of any external sources. It was shown that testing is an effective tool for learning mathematics. In our talk we investigate whether the usual tests can be replaced by multiple choice questions resulting in the same long-term knowledge and problem solving competences. When it comes to learning, teachers are key.

Our experiment involved Hungarian teacher training students in a mathematics class. Half of them were tested in the traditional manner, while the other half answered multiple-choice questions online. We investigated whether the two testing methods results the same abilities in solving mathematics problems.

Janka Szeibert
Edutus University

Csaba Szabó
Edutus University

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Short summary of speakers' presentations

Lajos Borbás Phd Prof. Emeritus

Edutus University

Digital Curriculum Development in Engineering Education

New teaching methods, communication techniques and learning processes are needed at all levels of the education system, including higher education, to meet the digital challenges of our time. In this process, the use of artificial intelligence is indispensable, and its appropriate use can provide a major help in understanding processes and in the exploitation of information.

However, we must remember that we will only get a meaningful answer if our objective function is precisely defined and the search database is available.

This is particularly true for engineering solutions that heavily rely on experimental results to complement numerical simulation techniques (e.g. stress and strain analysis of structures, individualised implantation in biomechanics).

Summary: *These presentations emphasise that digital competence is not just about tool usage, but about critical thinking, structured knowledge retrieval, and scientifically grounded learning strategies. The speakers highlight how learning sciences can inform classroom practice and curriculum design—especially when combined with EdTech tools like retrieval practice platforms. For Hungary, this reinforces the need for evidence-based curriculum reform and for integrating metacognitive strategies into teacher training. It aligns with EU priorities on improving education quality and modernizing learning methodologies.*

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Short summary of speakers' presentations

2. Artificial Intelligence in Education – Tool or Challenge?

Focus: *practical uses, ethical implications, AI-related competencies, and institutional integration*

Generative AI in Higher Education Practice

This presentation explores the emerging impact of generative artificial intelligence on teaching and learning within higher education. It highlights P.PORTO's recent initiatives, including tailored training programs for university staff and practical tools designed to support both educators and students.

Key case studies include GamiBot, a chatbot that personalizes learning through adaptive quizzes, and EduBot, which assists teachers with training and classroom support. The discussion also delves into broader themes such as digital literacy, ethical considerations, and the growing significance of AI competency.

Emphasis is placed on collaborative efforts—within institutions via communities of practice and internationally through cross-border projects. Rather than viewing technology as a simplistic solution, the presentation advocates for deliberate and reflective integration of AI, prioritizing educational quality, fairness, and the essential role of human judgment.

Mário Rui Domingues Ferreira da Cruz

associate professor and director
Polytechnic University of Porto

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Short summary of speakers' presentations

The Impact of AI on Cognitive Well-being and Educational Models

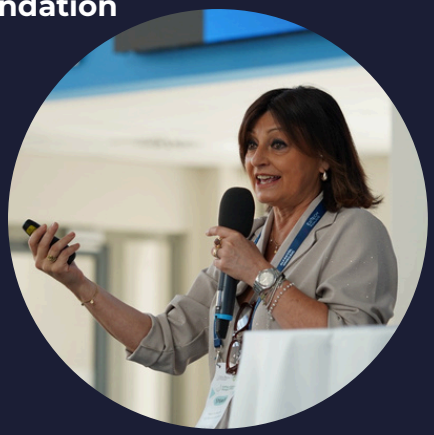
AI's burgeoning role in education necessitates a proactive pedagogical approach, impacting well-being, learning and cognitive processes. The aim of our presentation was to present the results of a literature review (as of 2020) that explores the benefits and critical points of AI learning support. Current discourse often centers on AI substituting cognitive skills, raising concerns about bypassed engagement.

However, the core challenge lies in preventing systematic AI use from weakening critical thinking and fundamental intellectual teacher-student relationships (Paideia). Literature marginally addresses AI's supportive potential for critical situations or out-of-school learning, including structuring virtual support and its impact on narrative structures crucial for cognitive development. European policies show growing awareness of AI in education, emphasizing teacher training, ethical use, and infrastructure investment and for this reason the authors are going to present an AI curriculum that integrates literature, policy, and frameworks like DigCompEdu and UNESCO's AI competencies for teachers and students. Designing an AI curriculum that takes into account the impact on well-being, as meant as cognitive well-being of students is complex, demanding a rethinking of educational models towards multidisciplinary approaches.

A crucial point is the need to extend the AI focus beyond formal schooling to the broader "infosphere" (Floridi, 2023), acknowledging AI's pervasive influence on all learning that has a very relevant impact in personal and community well-being, requiring a synthesis of formal and informal education.

Fabrizio Boldrini

director
Villa Montesca Foundation



Maria Rita Bracchini

head of the European cooperation unit
Villa Montesca Foundation

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Short summary of speakers' presentations

Ethical Integration of AI to Safeguard Student Well-being

Joanna Alexieva Phd.

chief expert
Ministry of Education and Science

The presentation highlights the importance of ethically integrating artificial intelligence (AI) into education to protect and promote student well-being. It highlights the risks of harmful digital content, including cyberbullying, privacy breaches, disinformation and dangerous online behavior, while underlining the need for digital literacy. International frameworks and guidelines from the EU, UNESCO, OECD, and WEF were analyzed to identify key ethical principles for AI in education, such as fairness, transparency, safety and accountability.

The conclusions that follow from the analysis are:

- Each document includes different aspects – social, pedagogical, technological, or legal, but there is no comprehensive framework that unites them.
- The principle of well-being is at the core, but is interpreted differently: in “Happy Schools” – as emotional and social well-being, and in “AI Ethical Principles” – as part of the social and ecological environment;
- Technological and legal aspects of ethics are often missing from pedagogical frameworks: Principles such as “Prevention of Harm”, “Privacy”, and “Technical Reliability” are not included in Happy Schools and Rationale for Alignment, although they are critical for the digital safety of students.

To overcome the described gaps, it is recommended to create an integrated ethical framework for education with a focus on student well-being in a digital environment, develop ethical literacy programs for both teachers and students, and introduce well-being indicators to monitor and evaluate the impact on student well-being.

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Short summary of speakers' presentations

Academy From Learning to Earning: Your Pathway to Digital Excellence

Salvatore Moccia

director of education and skills
EIT Digital

WHO WE ARE

Academy, backed by EIT Digital's expertise, is a pan-European digital learning platform that combines AI-driven personalization, skills intelligence, and secure credentialing to prepare learners for the evolving job market. We empower learners to gain in-demand digital skills, navigate evolving job markets, and showcase their achievements with verified micro-credentials. Backed by experience in EU-funded projects, we are redefining education for a future-ready workforce.

THE PROBLEM

In today's rapidly evolving job market and with 90% of jobs requiring digital skills by 2030, learners face significant challenges: language barriers, fragmented learning experiences, and the lack of verifiable credentials make it difficult for individuals to develop the digital skills employers seek. Learners struggle to find ways to authenticate their skills and match with relevant job opportunities, making it harder to advance in their careers.

THE SOLUTION

Academy seamlessly bridges the gap between learning and employment by combining AI-powered education, skills intelligence, and a unique digital skills passport to deliver personalized, job-relevant pathways for learners across Europe. We deliver personalized, multilingual learning paths, match learners with market-driven courses, and provide verifiable micro-credentials. (d)Academy connects education with job opportunities and makes advanced digital skills education more accessible.

THE BENEFITS

- Personalized Learning Experience: delivering multilingual courses and recommendations.
- Career-Ready Skills: in-demand digital skills and entrepreneurship knowledge.
- Digital Skills Passport: makes it easier for learners to showcase their skills to potential employers through verified credentials.
- Access to Funding: wallet platform that offers financing opportunities for students.

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Short summary of speakers' presentations

Summary: *AI is reshaping the education landscape, but its integration demands thoughtful design, ethical oversight, and alignment with institutional goals. Presentations underscored the importance of staff training, digital and ethical literacy, and balancing technological innovation with educational values. For Hungary, this is highly relevant as AI policies and EdTech infrastructures begin to scale nationally. The topic closely reflects EU strategies such as DigCompEdu and UNESCO's AI frameworks, suggesting Hungary must develop clear national guidelines for ethical and pedagogically sound AI adoption.*

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Short summary of speakers' presentations

3. Digital Wellbeing and Device Use in Schools

Focus: *smartphone use, teacher workload, and the mental health of students*

Smartphone Regulation and Teacher Readiness in K12

We presented on the evolving role of smartphones in K–12 education through the lens of global policy responses, teacher readiness and digital wellbeing. While smartphones offer opportunities for personalized learning and technological fluency, their unregulated use contributes to distraction, academic disengagement, and rising levels of technostress among educators.

Drawing on recent international studies and case analyses—including Bulgaria's renewed enforcement efforts and Australia's national bans—the paper argues that no single policy approach can resolve the complex tensions between innovation and overload. Evidence reveals that while smartphone bans can provide short-term behavioral benefits, they have limited academic or psychological impact when implemented in isolation. The pivotal factor in any policy's success is the capacity and support of teachers, who often face increasing digital demands without adequate training. Alternative frameworks emphasize student participation, structured digital literacy, and inclusive policy design.

Ultimately, we advocate for a holistic model of digital wellbeing that integrates device management with education, equity, and cultural change. By moving beyond binary debates and investing in pedagogically grounded strategies, schools can equip both students and teachers to navigate technology with intention and resilience.

Tzvetan Tzvetanski

chairman of the board
Center for Educational Initiatives

Plamen Miltenoff

researcher ccholary communication librarian
professor/information specialist

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Short summary of speakers' presentations

Summary: *While smartphones and digital tools are now integral to student life, unregulated use can lead to cognitive overload, disengagement, and increased stress for both students and teachers. Speakers advocated for nuanced, holistic approaches to digital wellbeing—blending device management with inclusive policy, teacher support, and student participation. The focus on teacher preparedness also supports EU recommendations for teacher resilience and digital wellbeing initiatives.*

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Short summary of speakers' presentations

4. Academic–Industry Collaboration in the EdTech Sector

Focus: *tri-sector models (university–industry–student), project-based learning, and soft skills development*

The PARIPA Program: University – Industry R&D Collaboration and Soft Skill Workshops

It is more and more difficult for ICT companies to find suitable employees, as there are thousands of missing computer engineers in Hungary. Small portion of students are capable of individual problem solving, they have little knowledge on the softwares and systems that are of utmost importance for the companies and they lack soft skills: communicate and work in a team with difficulties, lack management skills and competences.

The PARIPA is a novel complex program, unique in Hungary, funded by the Department of Networked Systems and Services at BME. The students work on a R&D topic defined by the company, together with an academic and industrial adviser, targeting a strong liaison between the two advisers. There are very strict rules for the admission, therefore only extremely motivated and well progressing students are admitted to the program. These students are monitored during the semester, and deliver an oral and written presentation at the end of the semester.
All students are members of a Soft Skill Workshop where they receive skill development in creativity, communication, cooperation and strategic thinking. The management of the Workshop (president and secretary) is elected by the students from among themselves, while a professional mentor support is provided by a president-professor mentor.

The highest level of liaison is the Board of the Program, consisting of high level representatives of the companies together with the PARIPA team (director, head of department, Soft Skill workshop leader). Here the partner companies announce the professional topics that are important for them while both parties report the results of the past semester.

Vilmos Simon

associate professor, program director
Budapest University of Technology and Economics

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Short summary of speakers' presentations

Data-driven Monitoring and Institutional Adaptation

Benedek Hermán

CEO of Voovo

Hungary's top universities, Semmelweis University, the University of Pécs, and the University of Szeged, have redefined how students learn by implementing Spaced Retrieval Practice through the Voovo platform. This research-backed method replaces last-minute cramming with daily, structured review sessions designed to strengthen long-term memory and promote consistent study habits. Voovo enables institutions to embed Spaced Retrieval Practice directly into existing curricula, delivering personalized tasks that help students engage with key concepts in short, focused sessions. This approach has led to significant improvements in academic performance and student engagement.

At Semmelweis University, 92 percent of students were using Voovo daily within two weeks of launch. What sets this approach apart is its adaptability across disciplines and institutional contexts. Whether applied in medicine, science, or other areas of higher education, Spaced Retrieval Practice offers a low-friction, high-impact way to modernize teaching and implement proven learning science. With minimal disruption to existing systems, Voovo gives educators real-time insights into student progress, allowing for earlier interventions and more targeted academic support. To date, Voovo has supported more than 100.000 students, primarily in science programs, but also in fields such as history, law, and architecture, demonstrating its broad applicability. Following its success in Hungary, Voovo is now expanding internationally in the Central and Eastern European region, helping STEM-focused universities improve student outcomes and engagement using proven, research-based methods.

The presentation showed how these universities have put Voovo into practice, how it has been adapted to their educational goals and how they have involved both students and teachers in the process. Participants learned about the learning science behind Spaced Retrieval Practice and why it is considered one of the most effective strategies for long-term knowledge retention.

Whether you attended as an educator, university leader, or EdTech expert, this presentation offered a clear and practical model for improving learning outcomes and building stronger knowledge foundations.

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Short summary of speakers' presentations

Summary: *These presentations showcased how collaboration between academia and industry, along with modern EdTech solutions like the PARIPA program and the Voovo platform, can effectively reduce the skills gap in IT and engineering fields. The PARIPA program engages highly motivated students in research projects while developing their soft skills. Voovo supports long-term knowledge retention and improves academic performance through the Spaced Retrieval Practice method. These initiatives demonstrate that research-based, practical education can provide effective responses to labor market challenges. The presentations offered inspiring examples of successful integration of digital education and research & development, contributing to the modernization of Hungarian higher education and the achievement of EU goals.*

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Short summary of speakers' presentations

5. International Trends, Ecosystem Building and Strategic Alignment

Focus: *national strategies, scalable innovations, market entry and ecosystem development*

Polish RRF Investments, STEAM Labs and AI-focused Education Infrastructure

Current trends in EdTech include the individualization of learning supported by AI technology, as well as hybrid learning models, data analysis and engaging student activities (such as VR technology for vocational subjects), along with the STEAM approach. In Poland, thanks to investments under the Recovery and Resilience Fund (RRF), hundreds of millions of euros are currently being spent on purchasing digital devices and equipping AI and STEAM labs in schools. Additional investments are being carried out through regional operational programs across all 16 voivodeships. This is creating demand for EdTech solutions. Foundation EdTech Poland is very active in the consultation process with public administration as well as promoting the most promising and scalable solutions for education.

Rafał Lew Starowicz

vice president
Edtech Poland Foundation

EdTech Challenges in Spain: AI, Interoperability, GDPR and Acceleration Programs

Our round table on EdTech trends focused on the main trends in our countries of reference but also which challenges are we facing and will be working in the future. We all agreed upon the importance of Artificial Intelligence in management reduction processes for education as well as data analysis and statistics. These outcomes will be raised by AI tools that education will be implementing in the following years supporting teachers and school decision makers. Other trends such as interoperability of platforms and data processing according to the GDPR were also discussed and the importance for edtech startups to be well aligned with international standards. Acceleration programs were also highly positioned as the main supporting tool to enter the education market.

Alicia Berlanga

director
EDUTECH CLUSTER - EdTech Spain

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Short summary of speakers' presentations

Market Trends in Spanish EdTech, Investment Dynamics and Growth Potential

I was talking about the trends in Edtech in Spain the last 3 years. The main trends are edtech with social impact, special needs, with focus on health and wellness, also simulators using VR and AR and AI for teachers and students, also tutoring. Trends stable are gamification.
60 % of edtech is B2B and 40% B2c.
Spain it's the 5th country in Europe raising private funding from investors. International investors in France, UK, Finland and US are investing in spanish edtech.
We have more than 400 edtech programs in our country and the main challenge is beta testing in schools and universities. 60 % of them are small, less than 10 employees and 30% up to 50 employees.
In Spain there are close to 30.000 schools and 8 M students up to 18 years old.
The main activity is in Madrid, Barcelona, Valencia and Malaga.

Félix López

director and co-founder of SEK Lab
co-founder of the European Edtech Alliance

European EdTech Alliance and the Power of Cross-border Collaboration

The EdTech Summit Hungary 2025 brought together a powerhouse of minds to tackle some of the most pressing challenges facing education technology in Europe.
It was clear throughout the discussions, from funding hurdles to fragmentation and scaling across borders, that EEA's voice and values were in the room, even when we weren't on stage. Our alliance was referenced multiple times across panels and keynotes, underscoring just how essential collaboration is in shaping a more cohesive and impactful EdTech ecosystem across Europe. The future of EdTech in Europe will be built not just through innovation, but through alignment, community and collaboration.

Antonia Götte-Ortiz

community manager at the
European EdTech Alliance

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Short summary of speakers' presentations

Summary: *Speakers from Spain, Poland, and pan-European alliances showcased how national investments, cross-border collaboration, and policy-driven innovation are shaping the future of EdTech. Hungary benefits from observing and adapting these strategies, particularly in using EU funding instruments like RRF and ERDF to strengthen infrastructure and digital readiness. The emphasis on interoperability, ethical AI, and startup acceleration also highlights the need for Hungary to build a more cohesive and scalable EdTech ecosystem that can engage with international partners and markets.*

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Short summary of speakers' presentations

6. Alternative Educational Models and Language Development

Focus: *paradigm shifts, bilingual education and equal access*

Bilingers.Systems: Universal Bilingual Education as a Social Innovation

Is the educational system developed for the needs of the first industrial revolution still appropriate for today's fourth industrial revolution? The answer is, of course, no, it isn't. If so, what should the adequate solution look like? The social-educational system of universal bilingual education is a comprehensive and proven proposal to replace the existing Prussian model.

Recent research shows that learning starts with listening, i.e., three months before birth. It is the best time to start the natural immersion process in the local (mother tongue) and universal language (English). The first benefits are observable when a child is 7 months old.

Bilingers.Systems by Yellow House Education consists of three proposals for the public, private and consumer sectors, comprehensively transforming universal education into universal bilingual education on a social scale. In every case, the goal is to help a child become an independent learner in both languages before the age of ten years old.

Instead of waiting for English to become foreign, Bilingers.Systems offers a natural immersion from the moment when children start to listen. It allows for the development of English at the level of native competency.

In this way, we solve the following three main problems:

- teaching English as a foreign language is expensive and ineffective
- the lack of communicative English holds back many countries/regions from growing
- the sensitive period for language acquisition is short - without adequate stimulation, children lose their unique intellectual and linguistic potential.

With more than 25 years of experience in this field, Claire Selby and Waldemar Miksa have created the Bilingers.Systems solution, which is characterised by the following features:

- a universal second language sharing universal values via STREAMS content - Science, Technology, Robotics, Engineering, Art, Math, Social Skills
- a natural/contextual immersion ecosystem
- AI for evaluation and recommendation
- gamification
- support for parents and carers
- a learning process not requiring language teachers
- creating a global community.

It is worth pointing out that in Bilingers.Systems, AI and other technologies are used solely to enhance the power of the human brain.

The system and its components have received numerous awards and distinctions in Poland and abroad. More than 500 implementations in the Polish districts and a promising collaboration in targeted countries in Europe, Africa, the Middle East and Latin America seem to be a good starting point to an inevitable global change in social-educational standards.

Mariani, B., Nicoletti, G., Barzon, G., Ortiz Barajas, M. C., Shukla, M., Guevara, R., Suweis, S. S., & Gervain, J. (2023). Prenatal experience with language shapes the brain. Science Advances, 9(47). https://doi.org/10.1126/sciadv.adj3524

Kovács, Á. M., & Mehler, J. (2009). Cognitive gains in 7-month-old bilingual infants. Proceedings of the National Academy of Sciences, 106(16), 6556–6560. https://doi.org/10.1073/pnas.0811323106

Waldemar Miksa

founder / CEO
Yellow House Education

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Short summary of speakers' presentations

Specialised Language Learning Through Adaptive EdTech Platforms

At the EdTech Summit, the presentation focused on how digital innovation and artificial intelligence are reshaping language learning for dedicated students in public and higher education. The showcased system provides a personalised, gamified and stress-free environment for mastering general and specialised languages alike.

The solution combines CEFR-aligned, 13-level structured curricula with adaptive AI features, such as smart speech simulations and real-time performance tracking. These simulations reflect authentic professional scenarios – from legal negotiations to engineering briefings – supporting students in over 11 ESP domains, including Business, Law, Medicine, IT and Engineering.

A key highlight was the seamless integration with Hungary's NEPTUN system, enabling institutional use across the country. Over 40,000 university users are already benefiting from this AI-driven platform. Public education students have free access nationwide, thanks to the platform's proven efficacy and results-backed methodology.

The app's scientific credibility was also discussed: according to a large-scale study, learners using the platform outperform traditional learners by 61%. As a recognised innovation, the app has been ranked among the top 35 EdTech solutions globally.

This presentation underlined the transformative potential of merging pedagogical principles with cutting-edge technology – not only enhancing learner outcomes, but also redefining the role of language education in the digital age.

Parents and teachers, even if they don't know English can absorb it contextually along with kids and have additional support from the system.

Zoltán Miholics

head of curriculum development and methodology Xeropan

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Short summary of speakers' presentations

Summary: *Innovative models like universal bilingual education and adaptive language platforms represent a bold rethinking of traditional approaches. They offer scalable, technology-supported solutions to linguistic inequalities and educational inefficiencies. In Hungary, where language acquisition is a long-standing educational challenge, these models provide inspiration for both early childhood and higher education reform. Their integration with AI, gamification, and national systems (e.g., NEPTUN) also shows how digital tools can meaningfully extend the reach and impact of public education.*

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Short summary of speakers' presentations

7. STEAM and Education in Cultural Contexts

Joyful and Sustainable: EdTech Projects and STEAM Education for Wellbeing

Kristóf Fenyvesi

senior researcher of STEAM learning & contemporary culture studies
Finnish Institute for Educational Research, University of Jyväskylä

Zoltán Márton

director of Hungarian STEAM Platform
head of STEAM Office, Obuda University
local Organizer Co-chair of ICGAL 2025

At the EdTech Summit, Dr. Kristóf Fenyvesi and Mr. Zoltán Márton presented a joint vision of future-oriented education through STEAM and educational technology. Dr. Fenyvesi shared insights from the Innovative Learning Environments Team from the Finnish Institute for Educational Research. Highlighting international collaborations - including the STE(PA)M and the Joyful Schools Erasmus+ projects, and the AI-enhanced language learning with social robots project in cooperation with The Educational University of Hong Kong - he demonstrated how schools can be sites of ethical, collaborative, and playful transformation. By focusing on phenomenon-based learning, transdisciplinary education, and creative pedagogies that foster student engagement and well-being, Fenyvesi emphasized the importance of inclusive, inquiry-driven learning environments that support both academic achievement and personal development.

Mr. Márton introduced the Hungarian STEAM Platform and the EdTech/STEAM ecosystem at Obuda University, including the STEAM Office, the successful Minecraft-based Summer University Camps, and the STEAMCraft Erasmus+ project. He showcased how the university integrates STEAM into both formal and informal education through gamified programming, embodied learning, and digital design. He also presented the EdTech Talents Horizon Europe project, which aims to strengthen national EdTech innovation ecosystems by building bridges between academia and industry and supporting sustainable talent development in the digital era.

Together, their work bridges research and practical application. Their shared mission is to shape the future of education by integrating interdisciplinary approaches, cutting-edge technology, and international collaboration for sustainable development.

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Short summary of speakers' presentations

Summary: *The presentation was about shaping the future of education through STEAM and educational technology. Dr. Kristóf Fenyvesi and Mr. Zoltán Márton highlighted international collaborations and innovative projects that promote inclusive, creative, and inquiry-driven learning. Their joint work bridges research and practice to support student well-being, interdisciplinary learning, and sustainable talent development in the digital age.*

Main exhibitors' corner

Stiefel

Voovo

Xeropan

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Stiefel: Sustainable Digital Solutions for Education

At EdTech Summit Hungary 2025, Stiefel Magyarország presented Legamaster interactive displays, demonstrating how sustainable technology can support the digital transformation of learning environments.

As the official Hungarian distributor of Legamaster, Stiefel is committed to providing innovative visual communication tools that align with both educational needs and environmental responsibility. Legamaster products are designed with a long-term perspective—combining high-quality performance with a reduced ecological footprint. They feature modular construction for easy upgrades, recyclable materials, minimized packaging waste, and an extended product lifespan.

Sustainability is not just a concept for Legamaster; it is a core value embedded throughout the entire product lifecycle. The company continuously works to meet the highest European environmental standards, including the use of FSC-certified materials in all wooden components and packaging. This ensures that the wood used comes from responsibly managed forests that provide environmental, social, and economic benefits.

Legamaster is also a proud member of the 1% for the Planet initiative, donating a portion of its revenue to vetted nonprofit organizations focused on environmental causes. Through this commitment, the company directly supports local and global efforts to protect ecosystems, combat climate change, and foster environmental education.

In addition, Legamaster contributes to community-based sustainability programs and encourages schools to embed eco-conscious thinking into their everyday practices. By integrating sustainable digital tools into the classroom, educational institutions can reduce their environmental impact while setting a powerful example for future generations.

Choosing Stiefel and Legamaster means investing in a greener, smarter future—where technology and sustainability move forward hand in hand.

Explore the full range of Legamaster educational products at iskolaellato.hu.

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Voovo: the Science of Smarter Learning

Research consistently shows that three techniques vastly outperform traditional study methods: spaced repetition, retrieval practice, and interleaved practice. Combined, these methods dramatically boost retention and comprehension—yet less than 3% of students use them actively and less than 1% of institutions have implemented it.

- **Spaced Repetition: Reviewing material over gradually increasing intervals (e.g., Day 1, Day 5, Day 15) strengthens memory. A landmark meta-analysis showed this method doubled retention for students compared to cramming;**
- **Retrieval Practice: Quizzing yourself or teaching others (rather than rereading) leads to stronger memory formation. In over 200 studies, learners who practiced retrieval remembered far more—up to 87% retention versus 53% with rereading. Even failed recall attempts help strengthen learning;**
- **Interleaved Practice: Mixing topics rather than blocking practice leads to deeper understanding. Interleaving boosts performance by up to 125% in math and science by forcing students to compare and contrast, improving flexibility and real-world application.**

Why Students Don't Use These Methods

- **Spaced repetition and interleaving require long-term planning and semester-long discipline for frequent study. One-time exams at semester's end encourage cramming, not long-term repetition;**
- **Retrieval feels uncomfortable, it reveals knowledge gaps, while rereading feels fluent, creating an illusion of learning. This leads to false metacognition; studies show students don't immediately feel the benefits of these methods;**
- **Traditional testing penalizes mistakes, discouraging self-testing and retrieval, and promotes pattern or test memorization over understanding.**

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Voovo: the Science of Smarter Learning

Voovo's Solution

At Voovo, we believe the solution is integration. Instead of leaving it up to students, we embed these methods directly into the curriculum.

1. **Spacing & Interleaving**
   - **Scheduled content: Released in sync with the curriculum.**
   - **Mobile-first: Duolingo-style delivery with gamified paths.**
   - **Consistent goals: Keeps students engaged weekly.**
   - **Adaptive spacing: Tough topics show up more often.**
2. **For Retrieval Practice**
   - **Low-stakes quizzes: Mistakes are feedback, not punishmentt.**
   - **Smart flagging: Questions likely answered dishonestly are revisited later.**
   - **Get Help: Students can ask Voovo directly, this data drives future repetitions.**
   - **Question variation: Adaptively reshaping quizzes -> real understanding.**
   - **Dynamic exercise types: Sequencing, matching, moving beyond flashcards.**

Our Impact at Voovo

- **100,000+ individual students use Voovo. 22+ university departments have integrated Voovo into nearly 100 courses.;**
- **95% of students in top courses use Voovo daily; 70% across all courses stay active throughout the semester;**
- **Partnerships with major universities, including University of Pécs, University of Szeged, Semmelweis University, University of Veterinary Medicine Budapest, and Óbuda University;**
- **Setting up a pilot with University of South Africa, one of the world's largest universities;**
- **Piloting at University of Bath, a UK Russell Group institution;.**
- **In talks with Arizona State University, a global leader in educational innovation;**
- **Collaborating on cognitive learning science research with University of Texas at Austin.**

Learn more at voovostudy.com

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The Xeropan Platform: Redefining Language Education with AI

Xeropan is Hungary's officially recognized, AI-powered language learning platform, designed for committed learners across public education, higher education, and professional training. Aligned with CEFR (A1–C1), it offers a fully digital, adaptive curriculum supported by artificial intelligence, gamification, and speech technology.

The platform delivers engaging general language courses (English, Spanish, German, French, Hungarian) and 11 specialized ESP modules including Business, Legal, Medical, Academic, Engineering, IT, Tourism, and Public Administration English. Each course features smart simulations, vocabulary and grammar drills, pronunciation practice, and video-based lessons—all contextualized for real-life communication.

Xeropan's AI-driven speaking simulations immerse learners in realistic roleplays, from casual travel conversations to formal academic or legal discussions. The system offers immediate feedback on grammar, vocabulary, and pronunciation, using advanced ASR and NLU technologies to personalize the learning journey.

The methodology combines constructivist pedagogy with data-driven feedback and microlearning. Learners progress through 13 sub-levels with measurable goals, while institutions benefit from detailed tracking via Xeropan Classroom.

Proven by empirical research, Xeropan improves learning outcomes by 61% compared to traditional methods. It builds real-world communicative competence, fosters learner autonomy, and boosts confidence in a safe, judgment-free environment.

With scalable integration and a growing global user base, Xeropan empowers students, educators, and professionals to thrive in multilingual academic and professional contexts.

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Key Findings of the Event

The EdTech Summit Hungary 2025 revealed a clear consensus: digital transformation in education is no longer optional it is a strategic imperative. Across all sessions, a shared understanding emerged that effective integration of technology must be rooted in pedagogy, ethics, and human-centered design. Speakers stressed that digital competence, teacher preparedness, student wellbeing and AI literacy must evolve in tandem to support meaningful, inclusive and resilient education systems.

The event highlighted the power of cross-sector collaboration - between universities, businesses, policymakers, and innovators- as a driver of systemic change. From AI-powered learning tools to novel curriculum models and bilingual education systems, the showcased initiatives provide actionable models for scalable impact in Hungary and beyond.

Impact and Next Steps:

- **The Summit catalyzed new dialogues between national and international stakeholders, paving the way for future collaboration.**
-
- **Key institutions committed to pilot projects and joint research efforts in digital wellbeing, retrieval-based learning, and AI integration.**

Looking ahead, EdTech Summit Hungary will continue to serve as a critical platform for shaping the country's digital education agenda—linking research, innovation, and policy in the service of a more agile, equitable, and future-ready learning ecosystem.

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Closing Remarks

After the EdTech Summit 2025, we leave with a renewed belief that technology and education are allies, not opposites. We carry with us the knowledge that was shared, the inspiring examples, the potential for new collaborations — and above all, the strength of community.

The message of the event is clear: we are not alone in facing the challenges ahead. The future of education is not the responsibility of a single actor — it is a shared mission, and progress is only possible together. With this sense of commitment, momentum, and openness, we continue the work that the EdTech Summit has inspired in all of us.

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