EDULEARN24

16TH INTERNATIONAL CONFERENCE ON EDUCATION AND NEW LEARNING TECHNOLOGIES

PALMA (SPAIN)
1ST-3RD OF JULY 2024

CONFERENCE PROCEEDINGS

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Preface

The EDULEARN24 Conference Proceedings include the papers presented at the 16th International Conference on Education and New Learning Technologies, held in Palma, Spain, from the 1st to the 3rd of July 2024. EDULEARN aims to offer a platform for lecturers to share valuable research and insights on the changing world of education and learning and teaching technologies.

This year, participants from over 80 countries engaged in networking activities, plenary sessions, parallel thematic sessions, and workshops. Renowned educational experts delivered keynote speeches, which are available at IATED Talks: iated.org/talks/.

EDULEARN24's focus was on the topics listed here: Educational Trends and Experiences, Pedagogical Methods and Innovations, Educational Research and Technology in Teaching and Learning.

The International Program Committee of EDULEARN24 included lecturers and researchers from around the world who conducted a blind peer review process to ensure the quality of the final publication. Among the points evaluated were the content, relevance to the field, structure, clarity, originality, and alignment with conference topics and disciplines.

IATED is committed to publishing high quality, original research papers and maintaining high ethical standards. All authors included in these Proceedings signed a copyright transfer form and the publication ethics guidelines, which can be found at https://iated.org/publication_ethics.

Finally, we extend our heartfelt thanks and best wishes to all members and delegates who contributed to the EDULEARN24 Proceedings.

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EDULEARN24 Keynote Speakers

Manu Kapur – ETH Zurich (Switzerland)

Keynote speech:
When and How Flipped Learning is Effective

In my talk, I will argue that the current levels of enthusiasm for flipped learning are not commensurate with and far exceed the vast variability of scientific evidence in its favor. I will share findings from an analysis of 46 meta-analyses as well as a meta-analysis of 173 studies specifically coding the nature of the flipped implementation for active versus passive learning activities. Findings suggested that most flipped learning interventions under delivered on the promise of active learning. I will then use the findings to propose a more specific model for flipping which I have developed with my colleagues—The 4 F Model: Fail, Flip, Fix, and Feed--whereby students are asked to first engage in generating solutions to novel problems even if they fail to generate the correct solutions, before receiving instruction. I will end by deriving implications of the 4F model and future research.

Biography:
Manu is currently the Director of the Singapore-ETH Centre, and a Professor of Learning Sciences and Higher Education at ETH Zurich, Switzerland. Before this, he worked in Singapore and Hong Kong, heading learning sciences labs and initiatives. Manu is widely known mainly for his work on learning from productive failure. For more information, visit www.manukapur.com

Pattie Maes – MIT (USA)

Keynote speech:
Using Generative AI to support more engaging learning experiences

Generative AI (GenAI) presents us with an opportunity to personalize AI experiences and make them more engaging. Maes will present several prototypes and experiences that her research group has created that use GenAI in novel ways to create personalized, interactive and engaging learning experiences in the domains of language learning, critical thinking, public speaking, history and self development. She will review the results of qualitative and quantitative studies of these systems and their impact on the learning experience and outcomes.

Biography:
Pattie Maes is the Germeshausen Professor of Media Arts and Sciences at the MIT Media Lab. She runs the Fluid Interfaces research group, which does research at the intersection of Human Computer Interaction and Artificial Intelligence with a focus on applications in health, wellbeing and learning. She is particularly interested in the topic of cognitive enhancement, or how wearable, immersive and brain-computer interface systems can actively assist people with issues such as memory, attention, learning, decision making, communication, wellbeing, and sleep. Maes is the editor of four books, and is an editorial board member and reviewer for numerous professional journals and conferences. She has received several awards: Netguru selected her for "Hidden Heroes: the people who shaped technology (2022), Time Magazine has included several of her designs in its annual list of inventions of the year; AAAI gave her the "classic paper 2012" prize, awarded to the most influential AI paper of the year, Fast Company named her one of 50 most influential designers (2011); Newsweek picked her as one of the "100 Americans to watch for" in the year 2000; TIME Digital selected her as a member of the “Cyber Elite,” the top 50 technological pioneers of the high-tech world; the World Economic Forum honored her with the title "Global Leader for Tomorrow"; Ars Electronica awarded her the 1995 World Wide Web category prize; and in 2000 she was recognized with the "Lifetime Achievement Award" by the Massachusetts Interactive Media Council.

Conference Tracks & Sessions

The EDULEARN24 conference program is available online at https://iated.org/edulearn24

ORAL SESSIONS MONDAY

Virtual & Augmented Reality (1)
Enhancing Skills in the GenAI Era
Assessment and Evaluation Strategies (1)
Employability Trends and Challenges (1)
Service Learning
Teachers and Students Wellbeing and Support
Exchange & Mobility Programmes
New Trends in Architecture and Engineering
Adult Learning
Virtual & Augmented Reality (2)
AI in Education (1)
Assessment and Evaluation Strategies (2)
Employability Trends and Challenges (2)
Environmental Awareness
Students Self-Efficacy and Learning Awareness
Virtual & Augmented Reality in Health Sciences
GenAI in STEM Education
Adult and Lifelong Learning
Chatbots in Education
AI in Education (2)
Assessment Redesign with GenAI
Entrepreneurship Education
Education for Sustainability (1)
Minorities & At-Risk Students Inclusion
New Technologies in Health Sciences Education
Mathematics Education
Early Childhood & Primary Education
LMS & Learning Analytics
Students and Teachers Views on GenAI
Feedback for Learning
Project-Based Learning
Education for Sustainability (2)
Diversity & Inclusion Issues
Health Sciences Education
Teaching STEM
Tutoring & Coaching

POSTER SESSIONS MONDAY

Emerging Technologies in Education
Challenges in Education and Research

ORAL SESSIONS TUESDAY

Knowledge Management Systems
Coding at Schools
Serious Games
Curriculum Design
ICT Skills among Teachers (1)
Bullying & Digital Abuse
Data Literacy Skills
Teaching Physics in Schools
Language Learning Innovations
m-Learning
Programming in Higher Education
Game-Based Learning
Problem-Based Learning
ICT Skills among Teachers (2)
Student Engagement
Digital Literacy
Engaging Students in STEM
Foreign Languages Technologies
Distance and Online Learning Experiences
Personalized Learning through AI
Gamification & Game-Based Learning
Creativity & Design Thinking
Pre-service Teacher Experiences
Student Wellbeing
Soft & 21st Century Skills
Experiences in STEM Education
AI in Language Learning
Technology Enhanced Learning (1)
Challenges of GenAI in Education
Active & Experiential Learning
Blended Learning
Professional Development of Teachers
Assistive Technologies
Innovations in Business Education
Experiences in Engineering Education (1)
Collaborative International Learning Experiences
Technology Enhanced Learning (2)
Coding & Computational Thinking
Team Work & Collaborative Learning
Quality in Education
Educational Management
Special Education
Fostering Innovation and Experiential Learning in Tourism Education
Experiences in Engineering Education (2)
Internationalization of Universities

POSTER SESSIONS TUESDAY

Pedagogical Innovations in Education
Educational Trends and Experiences

VIRTUAL SESSIONS

DIGITAL & DISTANCE LEARNING
Distance Education in Times of Crisis
e-Learning Experiences
Blended & Mobile Learning
Hybrid and HyFlex Teaching
MOOCs & Open Educational Resources
Learning Management Systems & Virtual Learning Environments

DIGITAL TRANSFORMATION OF EDUCATION
Digital Transformation
Data Science & AI in Education
Learning Analytics & Educational Data Mining
Digital Technologies and Resources for Distance Learning
21st Century Skills

INNOVATIVE EDUCATIONAL TECHNOLOGIES
Technology Enhanced Learning
Videos and Social Media in Education
Virtual & Augmented Reality
Generative AI in Education
Chatbots & Robots

ACTIVE & STUDENT-CENTERED LEARNING
Pedagogical Innovations
Gamification & Game-based Learning
Active & Experiential Learning
Problem & Project-Based Learning
Developing Soft and Transversal Skills

ASSESSMENT, MENTORING & STUDENT SUPPORT
Assessment & Evaluation
Mentoring & Tutoring
Student Support & Motivation
Student Wellbeing

MULTICULTURALITY & INCLUSION
Multicultural Education
Diversity Issues
Inclusive Education
Special Educational Needs

TEACHER TRAINING & ED. MANAGEMENT
Teacher Training and Support
Professional Development of Teachers
Educational Management
ICT & Digital Skills

EDUCATIONAL STAGES & LIFE-LONG LEARNING
From Pre-school to Secondary Education
Vocational Training
Higher Education & Labour Market Transition
Life-long & Workplace Learning

QUALITY & IMPACT OF EDUCATION
Quality in Education
Experiences and Challenges in Curriculum Design
Mobility & International Projects
Sustainability & Social Impact of Education
University-Industry Collaboration
Links between Education and Research

STEM EDUCATION
STEM Experiences
Mathematics & Statistics
Engineering Education
Computer Science Education

LANGUAGE LEARNING AND TEACHING
Foreign Languages
New Technologies in Language Learning
Language Learning & Translation Studies

DISCIPLINE-ORIENTED SESSIONS
Architecture & Interior Design Education
Health Sciences Education
Business & Tourism Education