
IFIP TC3 OCCE 2025 – Open Conference on Computers in Education

Rethinking Education Through the Lens of AI and Other Breakthrough Technologies

28-31 October 2025

Rabat, Morocco

<https://www.uir.ac.ma/fr/pole/tic-lab-technologies-de-linformation-et-de-la-communication/occe2025>

Call for Papers, Presentations and Other Contributions

This conference aims to inspire innovation, facilitate collaboration, promote thought leadership, and drive actionable outcomes in education by examining the role of AI and other breakthrough technologies. By showcasing cutting-edge tools, research and practices, it seeks to spark new ideas and reimagine traditional educational models. The event will bring together educators, researchers, technologists, policymakers, and industry leaders to share insights, build partnerships, and develop strategies for technology-driven transformation. Emphasising ethical and social considerations, the conference will encourage thoughtful discussions on the responsible integration of AI and other breakthrough technologies in education while ensuring inclusivity and equity. Ultimately, it aims to provide actionable recommendations for leveraging technology to enhance teaching, improve learning outcomes, and prepare learners for the demands of a rapidly evolving, tech-driven future.

IFIP TC3 OCCE 2025 provides a forum for new research results, practical experiences, developments, ideas, and national perspectives related to the conference focus and themes, which are listed in a following section and apply to all levels of education (pre-school, nursery, primary, secondary, further, higher, vocational, and lifelong learning) including the professional development of educators in any subject areas (teachers, trainers, consultants, and academic and support staff in educational institutions) and related questions on educational management.

We invite you to submit your work to IFIP TC3 OCCE 2025, enabling you to:

- Take an active role and be involved in discussions to consider concerns and approaches for the future of digital technologies for empowering learning, teaching, training and professional development with digital technologies supporting different subject areas, cultures and in different parts of the world.
- Share knowledge and ideas about the roles of AI and breakthrough technologies in the rapidly developing practices of Computer Science Education (CSE), and the important role that CSE has in educating creators of the future.
- Access latest research and business solutions that could relate to specific subject or curriculum areas, which have been transformed into effective educational practice, where outcomes are recognised and identified.
- Network with world-leading teachers, educators, professionals and technologists as well as with strategy and policy experts.

Themes of the Conference

Submissions should cover one or more of the key themes within the focus of the conference - **“Rethinking Education Through the Lens of AI and Other Breakthrough Technologies”**. The conference will focus on exploring how artificial intelligence (AI) and other breakthrough technologies (such as robotics, virtual realities (VR) and augmented realities (AR), and evolving forms of personal and mobile devices) are reshaping education, across subject areas, focusing on the opportunities, challenges, and transformative potential these advancements bring. It should aim to foster dialogue among educators, researchers, technologists, policymakers, and industry leaders to collaboratively rethink traditional educational practices, models and envision a future that leverages digital technologies for improved learning outcomes.

The key focus areas of this conference revolve around harnessing the transformative potential of AI and breakthrough technologies to reshape education in any subject or curriculum area (whether in health sciences, mathematics, languages or computer science, for example). It will explore innovative teaching and learning practices, showcasing how technology can personalise learning, enhance engagement, and improve outcomes. Preparing learners for a technology-driven future is a critical focus, emphasising the integration of information and AI literacy, data science, and emerging technologies into curricula. The conference will importantly address equity and accessibility, highlighting how digital technologies can close gaps in education access while considering ethical and socio-economic challenges. The evolving role of educators will be examined, identifying strategies to empower teachers as facilitators and collaborators in technology-rich environments. Finally, the conference will delve into the ethical, social and environmental implications of emerging technologies such as AI in education, fostering discussions on responsible implementation and the long-term impact on society.

The themes are grouped by broad categories with examples of possible (but not exhaustive) sub-themes.

1. Personalised Learning in the ‘Age of AI’

It is stated that AI-powered tools and other breakthrough digital technologies offer unprecedented opportunities to tailor education to individual learners. This theme explores how adaptive learning technologies, Generative AI, AI-driven analytics, and personalised content delivery might meet diverse learner needs, improve outcomes, and potentially make education more inclusive. It also considers the ethical implications of functionalities such as AI in shaping personalised learning pathways.

Examples of topics that can be presented under this theme could include:

- Leveraging adaptive learning platforms for student success.
- Using machine learning to identify and support at-risk students.
- Designing personalised study plans for diverse learning approaches.
- Developing educational practices using programming languages.
- Balancing human oversight with AI-supported teaching assistants.
- Case studies on implementing personalisation in K-12 and higher education.

2. Equity and Access through Technology

Breakthrough technologies may have the potential to bridge gaps in education access, particularly for underserved populations. This theme examines how digital technology innovations such as those using AI can help address disparities in education by providing affordable and scalable solutions. It also considers the challenges of ensuring that technological advancements benefit all learners equitably, regardless of socio-economic or geographical constraints.

Examples of topics that can be presented under this theme could include:

- Reducing the digital divide: Strategies for equitable technology distribution.
- Innovations in remote learning: Reaching marginalised and rural populations.
- Affordable digital technology solutions for resource-constrained settings.
- Digital media and their applications to engage diverse populations and to support accessibility.
- Language translation and accessibility tools for multilingual education.
- Ethical considerations in deploying innovations, including AI, for equity in global education systems.

3. The Role of Educators in a Technology-driven Future

As technologies including AI may transform classrooms, or indeed a subject area itself, the role of teachers can evolve. This theme delves into how educators in any curriculum area can adapt, leveraging technology to enhance teaching while maintaining the human connection critical for student growth. It also addresses professional development, ethical considerations, and strategies to empower teachers in a rapidly changing educational landscape.

Examples of topics that can be presented under this theme could include:

- Redefining the teacher's role: From knowledge deliverer to facilitator.
- Professional development programmes for integrating digital technologies including AI, robotics, VR and AR into pedagogy.
- Developing assessment and certification for digital professionals.
- Empowering teachers with technology-driven insights about student progress.
- Ethical dilemmas for educators in an AI-enhanced classroom.
- Building teacher resilience and adaptability in a technology-first era.
- Raising awareness about the responsible use of breakthrough technologies that may negatively affect the environment.

4. Reimagining Curricula for the 21st Century

Breakthrough technologies (such as robotics, VR and AR) necessitate a re-evaluation of what and how we teach (for example, in health sciences). This theme explores the integration of digital, information and AI literacy, data science, and emerging technologies into curricula to prepare learners for future challenges. It also considers the role of interdisciplinary learning, creativity, and critical thinking in fostering a generation equipped to thrive in a technologically advanced world.

Examples of topics that can be presented under this theme could include:

- Teaching computational thinking, computing, information, digital and data literacy from primary school to university.
- Designing interdisciplinary programmes that integrate STEM with humanities.
- Incorporating emerging digital technologies into traditional subjects.
- Gamification and virtual reality as tools for engaging students in complex topics.
- Fostering critical thinking, creativity, and ethical reasoning in an AI-driven curriculum.

5. The Application and Impact of Breakthrough Technologies and Practices in Education

Research outcomes already highlight how breakthrough technologies such as robotics, VR, AR and AI are being applied to topics and subject areas across the curriculum, as well as to management and governance functions. This theme explores how breakthrough technologies are being applied as well as how their impact is currently being identified.

Examples of topics that can be presented under this theme could include:

- The use and impact of Virtual Reality (VR) and Augmented Reality (AR) technologies for learning.
- The uses, impacts and challenges of Blockchain in education.
- Integrating physical computing into curricular practices.
- Developments and applications of gamification.

- Robotics tools, their applications, and impacts and challenges in education.
- Mixed realities in education - physical and digital (VR and AR) objects co-existing to create interactive learning environments.

Submissions

IFIP TC3 OCCE 2025 is an open scientific event that welcomes the following types of submissions, relevant to the conference focus and the conference themes. The indicated maximum number of pages assumes formatting according to the Springer formatting style (<https://bit.ly/3bdIGIE>) and the page lengths include all sections from the submission title to the references, acknowledgments, etc.

1. Research-oriented submission formats

Research-oriented submissions (full and short papers) will be reviewed for presentation at the conference and for possible inclusion in the post-conference book.

Full papers

Full papers (up to 12 pages) are standard academic research papers that describe:

- High-quality, unpublished, original research work and results (which can be either empirical or theoretical).
- Systematic literature reviews presenting novel arguments, syntheses, theoretical analyses, or the proposition of an original model, framework or theory.
- National perspectives, policy directions, or new ideas for practice.
- Unpublished work on original projects with an emphasis on practical experiences, e.g., evaluating a teaching concept or a curricular initiative.

Reports in this category need to reflect on their findings and their relevance to the field.

Short papers

Short papers (up to 6 pages) are shorter research papers in academic format, which can focus on the same topics as full papers and which present work in progress.

2. Presentation-oriented submission formats (abstracts, up to 2 pages)

Presentation-oriented submissions (submitted as abstracts) will be evaluated for presentation at the conference only. An exception are those papers arising from symposia, which can be reviewed after the conference for possible publication in the post-conference book (see further details in the final bullet point as follows).

Presented-orientated submissions can be:

- Demonstration/poster abstracts: presenting emerging ideas for future research, teaching practice, or use of tools.

- Workshop abstracts: where innovative projects, teaching concepts, technologies or open problems are demonstrated and explored. Workshops comprise a short presentation followed by an interactive session with the audience. Proposals for workshops consist of an outline of the subject to be discussed, along with planned activities, any specific infrastructure needed, time frame, and maximum number of participants.
- Panel session abstracts: the intended chair of a panel should submit an abstract with the indication of a panel of up to three identified speakers who will briefly present their views on a pertinent topic. The audience will be invited to participate in a round-table discussion.
- National session abstracts: a national overview from a national representative or representative group on a policy, practice or research topic.
- Symposia (up to 2 pages for the symposium description, plus 1 page for each presentation): a symposium is a collection of related presentations on a central theme of the conference. The organiser(s) of a symposium should submit an outline of the theme, the list of participants, and include a one-page abstract of each presentation. Papers arising from the accepted symposium presentations can be reviewed after the conference for possible inclusion in the post-conference book.

Submission Process

Details will be released once the conference management system to be used in this conference is confirmed.

Publication

Post-conference publication is anticipated through a post-conference book (planned to be published by Springer in the AICT series).

Full papers, short papers, and papers arising from an academic presentation in accepted symposia will be considered for publication in the post-conference book, according to the following criteria:

- If you submit a full paper, the reviewers will assess initially whether the submission is worthy of inclusion within the conference. If the paper is accepted for presentation, and only requires minor revision, then it will be judged worthy of being accepted for publication in the post-conference book.
- If you submit a full paper that is accepted for presentation, but requires major revision, a further review process is undertaken following the conference in order to assess whether it can be accepted for publication in the post-conference book.
- If you submit a short paper, the reviewers will assess initially whether the submission is worthy of inclusion within the conference, but acceptance for

publication in the post-conference book will be decided following the conference. Acceptance of a short paper for publication will depend on the number of short papers that can be accepted for the post-conference book.

- If you submit a full or short paper following an academic presentation in one of the accepted symposia, the reviewers will assess after the conference whether the submission is worthy of inclusion in the post-conference book.
- If you submit an abstract, the reviewers will assess whether the submission is worthy of presentation within the conference. No assessment will be given to indicate whether the submission should be judged worthy of inclusion in any post-conference publication (with the exception of papers arising from symposia, as noted previously).
- Abstracts of all accepted submissions will be published online as part of the conference programme.

Important Deadlines

Call for Papers opens – 1 February 2025

Call for Papers deadline - 31 July 2025

Reviewers assigned – by 31 July 2025

Reviews due – 31 August 2025

Author notification sent – 15 September 2025

Conference dates - 28-31 October 2025

Submission of revised papers following the conference - 31 December 2025

Financial Support for Doctoral Students from Developing Countries

IFIP TC3 is keen to involve doctoral students and early career researchers as participants from countries worldwide, especially from developing countries. Those coming from a developing country who would like to be involved by presenting a paper, but who would welcome funds to cover travel costs, should make early contact with the IFIP TC3 Chair, Professor Don Passey (d.passey@lancaster.ac.uk) by 30th April 2025 to explore possible support. Please note that support needs to be arranged early if visas or entry requirements are to be managed in time to attend the conference.

Updates

For updates, please refer to the [IFIP TC3 OCCE 2025 website](#).