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Lifelong Technology- Enhanced Learning

13th European Conference
on Technology Enhanced Learning, EC-TEL 2018
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Proceedings

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Preface

Welcome to the proceedings of the 13th European Conference on Technology-Enhanced Learning (EC-TEL). This year, the conference was held in the city of Leeds, UK, September 3–5, 2018, and was hosted by the University of Leeds, which has a strong commitment to research-led and excellent technology-enhanced higher education at the university; In the framework of this endeavor, the conference a very active player in the European technology-enhanced learning community. In addition, and in order to promote interdisciplinary approaches to TEL, we embrace the opportunity to be co-located with the Medical Education Informatics conference.

We live in an increasingly digital and globalized world that offers great opportunities for information sharing and the generation of new knowledge. This reality has enabled us to move forward rapidly as a society in many respects, but has also led us to complex, diverse and interdisciplinary challenges that affect all areas of knowledge such as health, demographic change and well-being; food security and bioeconomy; secure and clean energy; smart and green energy; or climate action and environment.

In order to meet these major challenges, we need a society that enhances the development of 21st century skills for supporting lifelong learning citizens able to deal with the complexity and uncertainty that tomorrow's problems require. These 21st century skills encompass not only technical and domain-specific skills, but also domain-independent meta-skills such as the 4Cs: critical thinking, creativity, communication, and collaboration—all needed to manage the complexity of future problems. In this context, technology plays a key role in generating new learning environments that support learners across both formal and informal learning contexts, facilitating them in developing and practicing 21st century skills to face these future challenges.

To feed the debate on this topic, the 13th European Conference on Technology Enhanced Learning (EC-TEL) 2018 was organized around the theme “Lifelong Technology-Enhanced Learning: Dealing with the Complexity of 21st Century Challenges.”

This theme is visible in the following keynotes by outstanding speakers, all of whom are a reference in the TEL community. They are, in alphabetical order: Allison Littlejohn, from the Open University, UK, who spoke about “Professional Lifelong Learning”; Carolyn P. Rosé, from Carnegie Mellon University, who spoke about “Lifelong Learning in a Web-Scale Opportunity Space”; and David Wortley, from 360in360 Immersive Experiences, who spoke about “The impact of disruptive digital technologies on Education, Medicine, Health and Well-Being.”

We have accepted contributions covering the conference topic on many levels and encouraged participants to extend the debate around the role of and challenges for cutting-edge 21st century technologies such as artificial intelligence, robots, augmented reality, and ubiquitous computing technologies for learning. The theme and debate

were reflected throughout the conference through the workshops, papers, posters, and demos as well as the lively discussions.

Finally, the theme was also visible in the new format of practitioner papers, whereby we aim to step up our endeavor as a community to engage in active communication between research and practice, acknowledging that this is a two-ways communication in which research and practice inform each other, for the benefit of both.

EC-TEL 2018 received 142 full and short research papers, of which 42 were accepted for these proceedings (acceptance rate: 29.6%). We further accepted seven demos and 23 posters for this proceedings volume. Practitioner papers are published in adjunct CEUR WS proceedings volume.

As we do every year, we aimed at providing a high standard in our review process; there were at least three reviews for full and short research papers and at least two reviews by senior Program Committee members for full research papers. All reviews were checked for their content, not only their overall scores, by the program chairs; and in many cases the paper itself was checked – this was to ensure decisions were overall as fair as possible within the pool of all submitted papers and to balance individual differences in scoring/weighting different strengths and weaknesses of papers by reviewers. We thank all reviewers who provided constructive and informative reviews addressing both the authors and the decision-making chairs.

EC-TEL sees itself as a discussion venue for an interdisciplinary community interested in the pedagogical underpinnings for designing learning technologies—innovative, interactive, and intelligent technologies that have the potential to support learning; individual, social, and organizational learning processes; different learning communities and contexts; open learning arrangements—and seeks diversity in target user groups for technologies by being explicitly interested in TEL in developing countries and for users with special needs. We celebrate this interdisciplinarity. At the same time, this interdisciplinarity is challenging, as it requires of authors to at the same time make a novel contribution but also to connect to an interdisciplinary discourse; and of reviewers to appreciate contributions with a different angle than one's own. The Organizing Committee therefore continues to see – in line with last year – that the community needs to develop a shared vision of TEL, and of what constitutes valid research practice and methodology, understanding that at the intersection of disciplines, many methodologies may be valid without this leading to arbitrariness.

These challenges are also addressed within other activities of the European Association of Technology-Enhanced Learning (EATEL), of which EC-TEL is by now the most visible and prominent one:

- *Systematic training of early-stage researchers within the community*: Even before the EC-TEL itself was launched, EATEL launched the first Joint Summer School on Technology-Enhanced Learning (JTELSS - <http://ea-tel.eu/jtelss/>) as a training and networking event for early-stage TEL researchers in Europe. From the first EC-TEL in 2006 onward, EC-TEL and EATEL held a doctoral consortium at the EC-TEL to complement this summer school, with the overall goal of engaging the next generation of TEL researchers into the discourse of the community from early stages on.

- *Systematic methodological discourse within the community in order to increase shared methodological understanding*: This year, EATEL and EC-TEL further broadened the scope of TEL as a profession. This year’s focus on open science as part of the professional practice in TEL initiated a series of events addressing the ongoing professionalization of our field.
- *Systematic appreciation of practitioner perspectives into community*: This year, EC-TEL introduced the category of practitioner papers. We want to support the possibility of research to impact practice, and of practice to inform research.

Overall, this year’s EC-TEL showed its continued relevance for the TEL community in providing a world-class forum for academic and professional discourse with strong European grounding. The chairs aimed to create such a space for the attendees of this year’s EC-TEL, the authors, all contributors, and all readers of this proceedings volume. We are looking forward to a future in which this discourse will continue to be lively, innovative, and reflective.

We close by thanking all the authors who submitted their work to this year’s conference – you are the drivers of TEL research and practice in Europe. We also thank all Program Committee members and reviewers for their voluntary contributions – you are essential for sustaining the quality in our field. Finally, we thank the local organization team for their great work and their warm welcome in Leeds.

July 2018

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