

Advances in Teaching and Learning Technologies

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In many ways, technology in general (and the Internet in particular) has fueled a revolution in the information age. The printing press—the “agent of change” in the history of humankind—was itself a technological innovation [1]. While it allowed information to be printed and shared as never before, it had to adhere to the rules of a physical world: printed books, libraries, and publishing houses. The Internet pushed through these limits; from web pages to video sharing sites to podcasts, Internet-related technologies increased information speed, volume, diversity, audience, and many other facets.

In particular, the significant increase of online and distributed classroom environments brings new technological challenges. The next decade will likely continue this shift from traditional university classrooms to online offerings. This change requires new technologies and learning systems to bring students together in new ways, improve collaboration in distributed settings, and support learning in new, improved ways.

In this minitrack, we explore this changing landscape with research into learning technologies, their application, and their impact on all of us. Papers were solicited on learning theories, cognition, tools and their development, enabling platforms, communication media, distance learning, supporting infrastructures, user experiences, research methods, social impacts, and/or measurable outcomes as they relate to the area of technology and its support of improving teaching and learning.

Nine papers were accepted to the minitrack. These papers can be grouped as follows:

- The strategies students use to learn, from their choices to motivational learning modes; how these strategies can be summarized and grouped; effects on learning quality and time effort.
- Cultural dimensions involved in group learning and in technology teams; how institutional elements affect adoption.
- Social learning platform acceptance and behavioral use; the effect of IT-based feedback in lectures.

- Knowledge framing in online communities; Mnemonic strategies using tools like virtual memory palaces.

Advances in technology are intricately connected to the future of learning. The papers in this minitrack add to our understanding of how technology can improve learning [2].

References

[1] Eisenstein, Elizabeth L. (1980), *The Printing Press as an Agent of Change*, Cambridge University Press, ISBN 978-0-521-29955-8.

[2] Entwistle, N., & Ramsden, P. (2015). *Understanding student learning* (Routledge revivals). Routledge.