24th International Conference on Interactive Collaborative Learning
50th IGIP International Conference on Engineering Pedagogy

ICL2021
„Mobility for Smart Cities and Regional Development – Challenges for Higher Education"

TU Dresden und HTW Dresden, Germany, 22-24 September 2021

ICL Special Session
Call for Papers

Title

Immersive Learning in Healthcare and Medical Education

Acronym

IMMEL'21

Overview

Recent advances in information and communication technologies (ICT) have acted as catalysts for significant developments in the sector of health care, including healthcare and medical education. From an initial international trend to involve computers and the Internet in healthcare and medical curricula and in conjunction with the current pandemic digital innovations in health and medical education are needed more than ever. Immersive learning utilising a range of media has a significant impact on healthcare training and education, however multiple aspects still need to be explored, posing fundamental challenges in healthcare and medical education. Can augmented, virtual and mixed reality and tangible technologies like 3D printing enable learners to pick up anatomic structures and young doctors to operate on virtual patients before ever entering an operation theatre. How can 360 interactive videos enable learners to enhance their clinical skills or soft skills? Can new educational approaches build on concepts of adult education, rely on situational and/or constructive learning and accommodate requirements involved in active, self-directed, student-centred, and experiential educational programs? How can immersive learning assist the learners in developing robust conceptual models that will eventually facilitate the transition towards expert, over-specialized knowledge, yet without losing sight of the "big picture"? Can information technology provide some added value for the development of individual strategies to effectively deal with the complexity and amount of medical knowledge?

This special session aims to bring together researchers in the multi-disciplinary areas of Healthcare and Medical Education, and technology enhanced learning and computer driven simulators, and to provide a forum for the presentation and discussion of their research activities. Academics, scientists, psychologists, clinicians, engineers, computer scientists, learning technologist and managers involved in immersive learning in healthcare and medical education, are encouraged to submit papers to this special track. We therefore welcome paper submissions and delegates from the worldwide Health, Medical and Computing community.

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Authors are invited to submit their research contributions or practical experience reports. All papers will be peer reviewed by at least two referees. The session provides its attendees with an opportunity to experience state-of-the-art research and development in a variety of topics directly and indirectly related to their own work, as well as, an opportunity to come up-to-date on important technological issues involved in the enhancement of immersive learning in healthcare and medical education.

Topics

Topics include but not limited to:
- *Digital innovations enhancing immersive learning: cases, reports, challenges, barriers and facilitators*
- *Development, Acceptability or efficacy of Immersive learning education resources*
- *Fully immersive simulated environments with programmable patient robots*
- *Avatars and Virtual Reality in Medical Education*
- *Computer driven simulators*
- *Virtual reality, Augmented Reality, Mixed reality, 360 videos as educational resources*
- *Training with 3D printing and digital modeling of tissue/organs in both exploratory and simulation scenarios*
- *Telepresence as part of training*
- *Digital escape rooms*
- *Methodologies and frameworks for creating immersive learning*
- *Pedagogies for using immersive resources into practice*
- *Issues of ethics, accountability, and data management policies*

Program Committee

Chair(s)

[Please list the chair(s) of the special session giving the following info:
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