

## Guest Editorial Preface

# Special Issue on New Perspectives in Online Education: Environments, Approaches, Authoring Tools

Laura Fedeli, Department of Education, Cultural Heritage and Tourism, University of Macerata, Macerata, Italy

Pier Giuseppe Rossi, University of Macerata, Macerata, Italy

Instructional technologies and e-learning have been radically changing in the last decade. Users' approaches and expectations towards their learning experience are being affected by the different nuances of what being present and active in the process may mean in the current educational ecosystems.

The idea of interaction, collaboration and support during the learning process are acquiring new dimensions in the online and blended solutions. Quality criteria and feasibility in the different educational levels, from childhood to higher education and in-service development, require teachers and instructional designers to face the various challenges of current social and professional landscape.

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In this regard, the first article by referring to the context of higher education in Saudi Arabia, puts emphasis on the multivariate analyses results of the factors that influence students' acceptance of e-learning analytics recommender systems and how to support students in meeting their learning needs.

The second article, on the basis of an exploratory study, aimed at identifying the strengths and weaknesses and the degree of acceptance of the use of virtual and augmented reality in professional training, refers to the importance of investigating such an opportunity for training in emergency management field. The potentials and advantages of virtual and augmented reality are discussed through the analysis of a qualitative/quantitative survey whose aim is to check how to promote an innovative training through technologies.

The third article, stressing the necessity of understanding the interactions among presences and domains in an online course, discusses and proposes a model that can offers teachers and course designers a new, holistic perspective that underlines the dynamic interactions between the presences and the impact of emotions within an online environment.

The fourth article, by discussing the challenges of participatory design practices to develop moral, social and emotional competencies through virtual learning environments, shows the need for children from early school experience to become successful students, citizens, and workers. Thanks to students' active participation in the educational design they are fostered to develop social and emotional skills critical to face school bullying.

The fifth article is devoted to the design of an Avatar-Based Learning and Teaching (A-BL&T) software system as a concept of control and managing knowledge in modern socio-economic conditions and proposed for the assessment of university's economic efficiency. The article proposes a solution to the problem of storing a plurality of hierarchical semantic networks in a relational database.

The last article emphasizing the opportunities of enhancing students' motivation and engagement in the learning process, argues that a blended learning solution can enhance students' self-confidence and makes them responsible for their own learning being more actively engaged in the process.

## **CONCLUSION**

Such analysis puts emphasis on different dimensions of the connection between the use of technology, the instructional delivery systems, from presence to blended solutions and e-learning to immersive learning environments, and the involvement of the different actors and their role in the complexity of the teaching-learning process.

The cases described in the present issue show how analysis of effectiveness through automated systems like learning analytics and qualitative tools to gather students' acceptance of technology can represent a valid support for enhancing the course design process and the level of integration of technology.

The co-design solution appears to be more and more referred to as a successful strategy to engage learners in the learning process and be active in reaching the outcomes. Co-design can be embraced for different reasons, to make students responsible in their path and acquire self-confidence, to involve stakeholders in identifying the proper modalities, to let different profiles (designers, teachers, tutors) open a dialogue.

When addressing quality criteria and effectiveness of the instructional infrastructure we do not refer merely to the technological dimension, but also to the pedagogical and institutional ones. School context as well as universities and professional training institutions require the planning and application of strategies that can meet every specific context readiness to include technology in their curricula. Including technology means not only an assessment of its readiness in terms of trained human resources and available equipment, but it also means to have the flexibility to adapt to different audiences with their prerequisites and learning needs.

*Laura Fedeli*  
*Pier Giuseppe Rossi*  
*Guest Editors*  
*IJVPLE*