

Editorial

ICT for Education on no ICT

IN THIS special issue of IEEE-RITA “ICT for Education on no ICT” we focus in the opportunities and challenges that information technologies might offer in educational contexts not related with STEM (Science, Mathematics, Technology and Engineering) where plenty of research has been carried out. This can be due to the fact that most research in innovative ICT application for education has been led by researchers with a technological background on computers, who tend to explore and search for applications of innovative technologies in their own disciplines. In fact, as the last report of the American Academy of Arts & Science pointed out, the use and integration of information technologies in humanities is not as extended as in science departments. As a consequence, its advantages for learning and training purposes are not fully exploited. There is a great difference between the number of online courses related with science compared with art and culture in platforms, as EdX reveals. However, given the profile of students and the nature of the topics addressed there is no reason to underuse ICT in non-STEM areas.

Researchers that investigate the affordances and possibilities of the ICTs for education on non-STEM areas face specific problems and challenges. For instance, the technological skills of educators and students might not very high as well as their willingness to adopt new technologies to support the teaching and learning process. In addition, these disciplines are more focused on the use of analytical and critical thinking methodologies, as opposed to the more empirical and experimental methodologies used in sciences that clearly benefit from technologies like virtual reality, augmented reality, collaborative work or virtual labs.

In this special issue, we present two papers that focus on the application of ICTs for education for non-technological subjects from two different perspectives. The first one describes the design and implementation of a videogame that aims at raising interest in classical theatre among young learners. During the last decade, the utility of the so called *serious games* in areas like health, rehabilitation or advertising has been demonstrated. However, little attention has been put in their possibilities for promoting culture. This videogame focuses specifically on the Lope de Vega’s play “La Cortesía de España”. Their designers faced the challenge of integrating the specific narrative of a theatre play, lineal and predefined, with the one of videogames, interactive and open. The solution proposed and the results of an evaluation carried out in a

school of Madrid could serve to other researchers in this area to move forward in this area.

The second paper aims to advance knowledge on key issues that should be taken into account when carrying out methodological innovations based on ICTs in blended learning courses. Due to their specific characteristics, this type of courses normally involves an extensive use of technology. The results of an experience in one course on Economy with more than 1,700 students, together with the experience gained in 9 research projects carried out during the last 10 years, allow the authors to identify a set of features in which act upon when studying the perception of the students of the new learning processes, when monitoring their progress and when measuring their satisfaction.

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