

TEEM17. Track: Educational Innovation

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ABSTRACT

The track Educational Innovation¹ of the International Conference Technological Ecosystems for Enhancing Multiculturality (TEEM), brings together, under the covering of the innovation, a diversity of themes from the tracks of the conference. The analysis of the educational innovation should be seen from three types: innovation in the classroom, institutional innovation and innovation in R+D+i projects. This paper presents a grouping of papers, accepted in this track of TEEM'17, under the two first types and classified in three lines of work: information and communication technologies, contents, methodologies and new services.

CCS CONCEPTS

• CCS → Applied computing → Education

KEYWORDS

Educational innovation, ICT, educational contents, educational methodologies, educational services.

1 INTRODUCTION

Innovation is related with the words change and improvement, it is continuous and allows organizations to evolve, adapt to new demands and contribute to the society's evolution [1]. Sein-Echaluce et al. [2] defines educational innovation as the application of an idea that produces planned change in processes, services or products that improve training objectives. The educational sector needs innovation to accelerate the adaptive process to the new products, methodologies and services that have arisen mainly through information and communication technologies (ICT).

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Three main types of educational innovation [3] can be considered: innovation in the classroom, institutional innovation and R+D+i projects.

- *Innovation in the classroom.* Teachers usually innovate with their students and in their own subjects.
- *Institutional innovations.* They are promoted by the institution (center, university, educational organization, etc.). In these cases, new services are internal (virtual campus, etc.) or external to the institution (Massive Open Online Courses, etc.) and they are aimed at teachers.
- *Innovation in R+D+i projects.* They usually have a strong financing from competitive calls and include developments, teamwork and products or services.

This track mainly addresses the typologies on educational innovation applied in the classroom and also the institutional innovation. In a similar way to previous conferences [4-5], this editorial presents the papers included in the track and their classification in different lines of work.

2 LINES OF WORK

The educational innovation in the classroom is carried out by the faculty itself who usually focuses the research in several aspects: ICT, contents, processes and new services. ICTs still have a prominent position in the works of educational innovation. The adaptation of existing *technologies* to be used in the education sector as well as the application of emerging technologies, are the most used topics. The structuring, organization and adaptation of *contents* in different multimedia formats continues being a usual activity among teachers. The new *methodologies* usually pursue cooperation, increased motivation and the active participation of students in the learning process. The new *services* associated to different teaching and learning activities are usually improved through educational innovation in the sense of being more effective and involving less effort and complexity. In this case the new university services associated with MOOCs can be highlighted.

3 ACCEPTED PAPERS

The accepted papers in this track have been classified in the mentioned lines:

Information and Communication Technologies

- Student motivation assessment using and learning virtual and gamified urban environments
- A step towards innovation at Universidad Central del Ecuador: Implementation of the virtual educational platform
- Free software in music education: an interdisciplinary practical approach in Primary School
- Analysis of the relation between IT school design and the lack of teaching method based on digital competence

Contents

- Development of metalinguistic awareness in reading comprehension from video-based instruction
- Art, Science and Magic: Music and Math the classroom

Methodologies

- The Use of Online Quizzes in Blended Learning Modality: A Qualitative Approach
- ULe-Bank
- Active Peer Based Flip Teaching

New services

- Transdisciplinary design of virtual learning environments: the case of a xMOOC on the study of electrical energy
- Pilot test for validation of an instrument of knowledge management in the massive open online context
- Designing and Implementing a Massive Open Online Course: Lessons Learnt

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