Boosting Innovation in an Italian Online University

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ABSTRACT

This paper describes the process of boosting an innovative e-learning system in an online university in Italy. The system relies on a satellite-terrestrial telecommunication infrastructure and allows for different interaction types, including synchronous, asynchronous, textual, audio and video communication modes. The adoption of this infrastructure was preceded by a training initiative proposed to the university staff to favor its intake. The paper analyzes the effects of both the training initiative and the technological innovation based on qualitative data derived from the observed differences between the pre-existing courses and their redesign and quantitative data tracked by the system during a pilot test that lasted eleven months. These data show a trend reversal in the e-learning approach, from a prevalence of transmissive mode to a more interactive one, although there is still a long way to go before more radical changes can take place.

Keywords: E-Learning System, Instructional Design, Online Learning, Teacher Training, Virtual Universities

INTRODUCTION

A Ministerial Decree of April 17th, 2003 (DM. Decreto del 17 aprile 2003, 2003) established virtual universities in Italy. Currently there are a dozen of these, all of which rather recent. Despite bitter controversy and doubts as to the ways in which they have developed and the actual purposes pursued by their management (Ferri, 2008; Rizzo & Stella, 2006), virtual universities are growing along with expectations as to the quality of their educational offer, which is strictly related to organizational capacity, staff competence, effectiveness of content delivery, efficacy of actors’ interactions and tracking capacity of teaching/learning activities (Manganello & D’Alessio, 2007; CUN, 2010; Valentini, 2010).
This resonates well with what is happening abroad, where online education has grown exponentially over the past decade. Data collected by the Sloan Consortium, for example, reveals that in the USA “between 2002 and 2009 students enrolled in at least one online course increased from 1.6 million to 5.6 million. It is projected that by 2020 up to 60% of college students will take their courses entirely online” (Betts, Kramer, & Gaines, 2011: 20). This is in line with the larger picture, according to which “it is expected that online enrollment will further increase in all sectors of higher education” (Patterson, Mallett, & McFadden, 2012: 54).

However, looking at the existing experiences in the field of virtual higher education, one may observe that often, despite the use of ICT, the processes of teaching, the pedagogical approaches, as well as the underlying assumptions about learning and knowledge sharing remain largely unchanged with respect to those underlying traditional settings (Salmon, 2005).

This is true of Italy as well, where, due to scarce experience in these fields, the most common method used by online universities often consists of making learning materials available to students on some Learning Management Systems (LMS). Typically, these materials consist of lecture notes, lesson slides, video or audio lessons. This transmissive approach differs from the traditional classroom lessons only for the medium used and does not take full advantage of the potential offered by technology to improve and enhance the formative offer to students.

The literature concerning technological innovation in higher education (Mayes, Morrison, Mellar, & Oliver, 2009; Smith, 2012; Ehlers & Schneckenberg, 2010; Garrison & Anderson, 2003; Curran, 2001; Karamouzis, 2004), however, shows how a better understanding of social needs, pedagogical theories and technological developments can contribute and inform substantial educational innovation. Some research studies show that methods, approaches and tools can be transformed and many compare face-to-face and online teaching (Klesius, Homan, & Thompson, 1997; Allen, Bourhis, Burrell, & Mabry, 2002; Rovai, Ponton, Wighting, & Baker, 2007; Jones & Everard, 2008), investigating their respective peculiarities, methods and assets (Keegan, 1986; Garrison, 1989; Bates, 2005). Research has also looked into how best to interweave face-to-face and distance experiences in a single learning/teaching approach (Kaye, 2003; Bonk & Graham, 2006).

As mentioned above, Italy still needs to develop extensive experience in this field, especially for what concerns providing virtual universities with innovative and effective e-learning systems, and developing specific training initiatives addressing academic staff. Such training should aim to introduce and establish these systems in order to favor the uptake of the underlying methods and available tools. In fact, making technology available in an educational system does not guarantee its uptake, let alone methodological innovation. Indeed, even when and where new technologies are used, the way they are used tends to mirror approaches which lecturers and students are accustomed to, unless systematic actions to boost and support its use is taken.

This article reports on how this problem was approached within the STEEL project, funded by the Italian Ministry of Education, University and Research under the FIRB Programme. Within this project, an innovative e-learning system was developed and made available to an Italian virtual university, partner of the project. Upon provision of the new technological platform and before it was evaluated through a pilot experiment, the university staff was offered a blended course aimed to support them in the design or (re)design of their courses in view of better exploiting the new functionalities made available by the system.

The following sections discuss the newly implemented e-learning system, the context where this was validated, the main features of the teacher training course (called DID@STEEL), the qualitative and quantitative data collected during the pilot test of the system and, finally, the outcomes of the innovation process based on the redesign of the university courses and the adoption of the new system.
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