ABSTRACT

Blended learning has been recognized as the most promising emerging trend in higher education, offering new capabilities, as it may significantly enhance the interaction and communication between instructors and students. The challenge of blended learning is to balance weaknesses and strengths of face-to-face and e-learning teaching environments and effectively combining them to provide enhanced learning capabilities. Its success should benefit instructor-student relation. To this end, the authors adopt ecosystem-based approach to model the blended learning environment and identify its constituents, i.e., instructors, students, consultants, technology, and their evolving relations. The proposed concept was utilized to explore the potential of blended learning in the academic environment. A study was conducted at Harokopio University of Athens over a period of three years to explore the relations between blended learning ecosystem constituents, focusing on instructor-student relation.
INTRODUCTION

The term “blended learning” is being frequently used in both academic and corporate institutions during the last few years. As stated in Rooney (2003), the American Society of Training and Development identified blended learning as one of the top ten trends to emerge in the knowledge delivery sector. Blended learning has also been widely recognized as the most promising emerging trend in higher education (Bonk et al., 2006; Garrison & Hanuka, 2004; Young, 2002). Blended learning offers new capabilities for education, as it may significantly enhance the interaction and communication between educators and learners. There were many efforts to define blended learning (Bonk et al., 2006). In the following, we adopt the definition presented by Graham (2006), according to which Blended Learning or Hybrid Learning is defined as the combination of face-to-face with computer-mediated instruction, identifying the central role of computer-based technology in the delivery of knowledge. In practice, one could realize blended learning as e-learning methods combined with traditional face-to-face teaching (So & Bush, 2008; Olapirivakul & Sher, 2006; Bonk et al., 2006).

While e-learning emphasizes on learner-material interaction, face-to-face learning environments place priority to human-to-human interaction. The evolving symbiosis of technology with traditional pedagogical approaches, facilitating content richness, flexible content access and alternative communication channels, may benefit the learning process. However, it also introduces complexity, as it is more difficult to manage the increased number of learning channels and more time consuming to set up a blended course. The challenge of blended learning methods is to balance the weaknesses and strengths of face-to-face and e-learning teaching environments and effectively combine them to provide enhanced learning capabilities. This is not a trivial task, especially since computer-based and more specifically e-learning technology is constantly evolving (Varlamis & Apostolakis, 2007). Apparently, blended learning methods create more complex relations between educators, learners, technicians, etc., i.e., stakeholders. They are stakeholders in the sense that they have a stake in the educational environment, the quality of which is affected by them and which, in turn, affects them. For blended learning to be successful, interrelations between stakeholders should be effectively explored. To this end, we adopt the concept of blended learning ecosystem, based on the principles introduced in Uden et al. (2007), in order to specify all the required constituents of such an environment and their respective interactions in a consistent manner. In biology, an ecosystem is a complex, dynamic functional unit consisting of a community of groups of organisms, interacting with each other as well as with the environment within which they live (Uden et al., 2007). Likewise, the blended learning ecosystem formed in an academic environment comprises different stakeholders, e.g., individual groups (instructors, students, consultants, technicians), utilizing e-learning technology, that are becoming increasingly collaborative, and through their interactions dynamically transform the ecosystem, thus leading to the gradual formation of a new learning paradigm. The ecosystem metaphor proposed in this paper focuses on assessing the way the relations between individual groups is affected by the introduction of e-learning technology, which is constantly changing. It may contribute to the constant assessment of blended learning environments, since it may enable a systematic way to monitor and access the evolution of the learning process, by evaluating the impact of specific technology features on it. It should be noted that the ecosystem metaphor has been widely used to explore different learning paradigms, even if e-learning features are not utilized (Babar & Roth, 2006). Corresponding learning environments may be constructed by utilizing technology, though this is not necessary. This issue, though important, is not the focus of