## INTRODUCTION

## E-LEARNING, EMPLOYABILITY AND ENTREPRENEURSHIP: APPROACHES FROM THE ECONOMIC FRAMEWORK

E-learning has become consolidated as an increasingly used method to train workers, managers and entrepreneurs. However, unlike face-to-face training, the models developed to evaluate the economic dimensions of virtual learning environments, in particular those associated with online training for employment and entrepreneurship, are rather scarce. In order to expand available research in this field, this special issue presents five articles whose main research objective is to analyse of the economic dimensions of e-learning. In particular, the research focuses on the effect that vocational training exerts on the employability and entrepreneurship conditions of the workforce.

The first study, conducted by Juan Francisco Martínez-Cerdá, a student on the e-learning doctoral programme at the Open University of Catalonia (UOC) and the lecturer Joan Torrent-Sellens (UOC), analyses the skills acquired via e-learning programmes that may help to improve the careers of European workers. The main objective of the paper is to make clear that there is a set of digital skills and e-skills that are developed through educational systems based on e-learning, which have broad applicability to the employability of European workers. In a more specific way, it appears that the comprehensive development of certain digital and e-skills —especially media content handling, flexibility and organisation— by these workers is one of the most useful factors for their professional development, through the transition to a new job with the same or higher security than the job in the previous year.

The second study, conducted by the lecturers Francesc Saigí-Rubió (UOC) and Inés González-González (University of Washington), analyses the importance of virtual communities of practice in the healthcare field. It is an account of an experience of how training and professional interaction can help to improve the outcomes of work in health services. The paper aims to examine the benefits that the use of virtual communities of practice offers professionals in the healthcare field. Conceptually, communities of practice are supported by the theory of situated learning, which highlights the importance of the professional environment and interaction with colleagues in the development of practical learning. In some professional areas, this way of creating and sharing knowledge has become a common practice. The intensive use of ICTs enables virtual communities of practice to be formed. Through them, the process of collaborative knowledge construction is faster, more efficient and participatory. Also, the set of benefits from the use of virtual communities of practice is wide and diverse, reaching all the members of the community, on both personal and general levels, as well as the organisations where the members of the community undertake their professional activities.

The third study, conducted by the lecturers Inés González-González (University of Washington) and Ana Isabel Jiménez-Zarco (UOC), analyses new business models associated with the MOOC phenomenon. MOOCs are a recent phenomenon that has drawn considerable media attention to the world of e-learning since the most prestigious US universities —and subsequently many others— began offering them. In the last ten years, the changes that have occurred since the emergence of Web 2.0, with the development of Open Social Learning and the rise of OpenCourseWare, have given rise to the MOOC phenomenon.

Initially, and as part of the OpenCourseWare movement, MOOCs came into being with the vocation of opening up knowledge to the people, with knowledge being understood as a good asset of humanity. The paper presents a descriptive overview of the MOOC movement from its beginnings to the different business models that are being proposed.

The fourth study, conducted by the lecturers Joan Torrent-Sellens (UOC), Pilar Ficapal-Cusí (UOC) and Joan Boada-Grau (Rovira i Virgili University [URV]) reports on the design and validation of a scale for measuring the quality of e-learning in training for employment. Through a questionnaire survey of 5,265 people who took part in an e-learning training programme developed in 2009 by the Catalan Occupation Service (SOC) and the UOC, the study makes two main contributions. First, the authors describe the design of an 18-item scale. Second, the study analyses the factorial structure and psychometric properties of that scale. Three factors from the exploratory factor analysis, namely competencies developed, applicability of training and satisfaction with the pedagogical design, explain 71.5% of cumulative variance. The total scale reliability is 0.94. The paper provides new evidence in the specific field of e-learning vocational training specifically for the unemployed, as well as new dimensions such as the structure and the pedagogical design of the programme. The analysis of a new edition of the programme in 2012 reveals the usefulness of e-learning for the unemployed with fewer formal qualifications.

And lastly, the fifth study, conducted by the lecturers Mònica Cerdán-Chiscano (Autonomous University of Barcelona [UAB]) and Ana Isabel Jiménez-Zarco (UOC) analyses the role of e-learning in the development of entrepreneurial competencies in business accelerators. A new agent has recently emerged within the context of university-based entrepreneurship; that of business accelerators. The main of aim of these is to support the growth of spin-offs and raise rates of return for universities on their transfer agreements. This new agent has become consolidated because of the traditional incubators' inability to deal with the diversity of their firms or network with innovative agents of the system. Some of the most frequently used instruments to improve the growth capacity of spin-offs are training pathways for the entrepreneurial team delivered via e-learning. By analysing an experience of business management training (management and commerce), mentoring and financial assistance for innovation via e-learning at the UAB Research Park, this article shows that there has been a 14% increase in the annual turnover of the spin-offs concerned.

The five articles provide new evidence of the effect that e-learning has on the employability and entrepreneurship conditions of the workforce. The first article underscores the usefulness of e-learning in the development of skills that help to ensure job stability among European workers. The second article highlights the importance of virtual communities of practice for the development of professional practice and organisational dynamics in the healthcare field. The third article presents new business models underpinning the MOOC phenomenon. The fourth article reports on the design and validation of a scale for measuring the quality of e-learning in training for employment. And lastly, the fifth article analyses the effect of e-learning on the development of entrepreneurial competencies in firms located in business accelerators. They all open the door to future research and emphasise the need to carry on analysing the economic dimensions of e-learning.

On behalf of all the authors in this issue, I would firstly like to thank the eLearn Center for the opportunity to publish these studies, and secondly to congratulate it on the incorporation of the economic dimension of analysis into its extensive experience of e-learning research. We hope that the readers of this issue will find this new dimension of analysis useful.