E-learning in Economics and Business

Josep M. Batalla, Eva Rimbau and Enric Serradell

Universitat Oberta de Catalunya, Spain | jbatalla@uoc.edu
Universitat Oberta de Catalunya, Spain | erimbau@uoc.edu
Universitat Oberta de Catalunya, Spain | eserradell@uoc.edu

Abstract

E-learning is broadening education horizons all over the world. The contribution sought by this work is to evidence innovations and practices that are applied to teaching environments and fields of knowledge connected with Economics and Business in an online environment. In this respect, some contributions relating to concepts and subjects considered as emergent are presented here. These are, for example, the acquisition of competencies in online environments, the use of Wikipedia applied to statistics, the use of tools offered by social networks or the subject of cooperative learning and teamwork. In addition to such contributions, we present some reflections on the most significant future trends of e-learning. In the near future, lecturers will be able to make decisions based upon a huge amount of information that it will be possible to generate after analysing the learning processes. All in all, everything seems to point towards four aspects that will be progressively incorporated into online learning: the release and democratisation of content, the addition of elements to motivate students, the efficient management of teaching and, lastly, the establishment of a tighter link between learning and profession.

Keywords

e-learning applied to Economics and Business, cooperative learning, educational innovation, competencies, higher education, educational technologies, educational future trends

El e-learning en las disciplinas de la economía y la empresa

Resumen

El e-learning está ampliando los horizontes de la educación en todo el mundo. La aportación que pretende realizar este trabajo es la de poner de manifiesto innovaciones y prácticas aplicadas en entornos docentes y áreas de conocimiento vinculadas a la economía y la empresa en un entorno en línea. En este sentido se presentan algunas contribuciones relacionadas con conceptos y temáticas que consideramos de actualidad, como, por ejemplo, la adquisición de competencias en entornos en línea, el uso de Wikipedia aplicado a las materias de estadística, la utilización de herramientas de las redes sociales o la temática del aprendizaje colaborativo y el trabajo en grupo. Además de estas aportaciones, presentamos algunas reflexiones sobre cuáles son las tendencias de futuro del e-learning. En un futuro próximo los responsables docentes podrán tomar decisiones sobre la base de la ingente información que será posible generar analizando los procesos

de aprendizaje. En todo caso, todo parece apuntar a cuatro características que irán incorporándose a la formación en línea: la extensión y democratización de los contenidos, la adición de elementos motivadores de los estudiantes, la gestión eficiente de la docencia y, por último, el establecimiento de una mayor vinculación entre formación y profesión.

Palabras clave

e-learning en economía y empresa, aprendizaje colaborativo, innovación educativa, competencias, educación superior, tecnologías de la educación, tendencias educativas de futuro

1. Introduction

This *RUSC. Universities and Knowledge Society Journal* Special Issue, which focuses on the use of e-learning in Economics and Business, is the result of a long process of reflection and work started at the I Workshop on e-learning in Economics and Business held on the 25 October 2013. As a debate forum, it intended to encourage the exchange of ideas and experiences around virtual teaching in the subjects of Economics and Business. More than thirty works were presented around five thematic areas: (1) competency-based training within the European Higher Education Area (EHEA), (2) the role of social networks in online learning, (3) virtual evaluation systems, (4) simulators and serious games as teaching tools and (5) personalised feedback in virtual learning environments. This process culminated in this Special Issue.

In the framework of the different debate fora that took place during the I Workshop on e-learning in Economics and Business, the question of what the main challenges in the near future of higher education would be was tackled. Special attention was given to how they might affect not only distance universities but also face-to-face institutions. There was a degree of consensus on two main challenges: the first one is to consolidate the adaptation of university studies to the EHEA. The process has led to a thorough modification of curricula, which places "competencies" at the core of the educational model. Such a situation is particularly remarkable because of the close and important implication it should have, at least at three different levels: the drafting of degrees; the use of methods, activities and learning resources; and evaluation (Riesco, 2008, p. 80).

It must be kept in mind that the EHEA was designed according to the European Credit Transfer System (ECTS) philosophy, which converts a "credit" into the basic unit for planning, acting and evaluating, and it places the student's activity instead of the lecturer's at the core of the educational model (Ruiz-Gallardo & Castaño, 2008).

The second challenge is to adapt the learning process to the massive penetration of digital technologies in university institutions, which is progressively transforming face-to-face teaching into blended learning wherein social networks, web 2.0 and virtual communication (synchronous or asynchronous) become the centre of the educational model. Additionally, information and communication technologies (ICTs) are now just an object to be used as an important support tool in teaching innovation (Salinas, 2004).

This adoption of virtual technologies by face-to-face universities has grown almost exponentially. In Spain, specifically, it has gone from 27 universities with a virtual campus in 2002 (Alemany, 2007) to 75 university institutions in 2009 with an online campus (Prendes, 2009). This process of "virtualisation" of face-to-face universities has continued to expand until penetrating almost the whole Spanish university system nowadays. Obviously, such a profound transformation makes the role of lecturers and students change. The lecturer is not a simple transmitter of knowledge anymore, but is now a mediator in the construction of the student's knowledge. Moreover, the student must adjust his/her way of learning to teaching processes that use ICTs (Pérez & Garcías, 2002).

Such a change completely conditions the teaching strategy to be followed by face-to-face universities and also by the virtual ones to a larger extent. Since technology has stopped being a differential component and is not a comparative advantage anymore, virtual universities must base their strategy on their methodological know-how and their ability to innovate.

Given below is a concise review of the scholarly topics on which most scientific works on e-learning have focused. This is followed by a brief presentation of the main focus, methodology and scope of applicability of the articles contained in this Special Issue. Finally, the main future trends of e-learning and the use of tools to improve the learning process, in our opinion, are shown.

2. E-learning in Economics and Business subjects

If a detailed review of scholarly works on university teaching in virtual learning environments is made, we will see that most of them deal mainly with two areas of knowledge: pedagogy and technology. Thus, pedagogy is the predominant area of knowledge when the focal point of study is teaching methodology to improve the learning process. Moreover, the areas related to computing and digital technologies prevail when we talk about tools to improve e-learning.

There are undoubtedly many reasons for this; the affinity between the object of study and the area of knowledge, the possibility of carrying out applied research during university learning, or the progressive increase of researchers (pedagogues and programmers) specialising in studying virtual teaching, together with an increase in scientific journals focusing on this kind of research are but some that explain this *status quo*.

The considerable rise in the number of works and studies on e-learning by pedagogues and technologists has been accompanied by a certain delay in the analysis of e-learning from other subjects. In the case of mobile and ubiquitous learning, for instance, a review of works between 2001 and 2010 (Hwang & Tsai, 2011) found that most of them did not focus on any particular field of knowledge, and that the fields found were mostly engineering (including computing), language and arts, and science.

Specifically, university lecturers and researchers in areas of knowledge related to Economics and Business have had a tendency to value the methodological innovations they apply to their subjects as simply professional practice, not giving them the real value they often have. Moreover, frequently they forego opportunities to present their results since there are no specific fora in which to showcase and discuss them. It is within this context that reflecting on whether it is possible to make interesting contributions to e-learning from the Economics and Business knowledge area arises. Obviously, the answer is yes.

3. Main contributions of the Special Issue

In this Special Issue, we present five works that aim to provide answers to the two challenges raised before: competency-based training and ICT use in higher education. The added value of this Special Issue is that it is the first to focus its analysis exclusively on the subjects of Economics and Business of any international scientific journal. Thus, the selected works make an analysis of the competency profile of online graduates in Business Administration (BA), the acquisition of competencies in economics studies through social networks, the effects of evaluation in accounting subjects of a blended learning strategy, the use of Wikipedia in statistics subjects and cooperative learning, which is one of the main cross-curricular competencies that students of our subjects must acquire. All five articles contained in this Special Issue of *RUSC. Universities and Knowledge Society Journal* have been selected after a blind peer-review process.

The first article, which tackles the challenge of competency-based training, is "The competency profile of online BMA graduates viewed from a job market perspective" by A. Fitó et al. It shows the main results from a study whose aim is to analyse the impact of online competency-based training on the potential employability of graduates gaining Business degrees. To that end, the analysis takes a dual perspective: on the one hand, that of students and graduates, and on the other hand, that of employers. The results show a positive student perception as regards their own education, and a negative perception as regards how they are valued by the market. Employers consider that, in general, the level attained by online students in several generic competencies is better than the one attained

6

by face-to-face students. Competencies related to technology, searching for information and time management, among others, are some examples.

Such results confirm the change that is taking place in the employers' perception of online education and how online students can compete with face-to-face students in the labour market. This research was conducted in the Economics and Business Studies Department at the Open University of Catalonia (UOC), in collaboration with the Human Factor Foundation and the Catalan Association of Accountancy and Management (ACCID).

"Social networks as tools for acquiring competences at university: QR codes through Facebook" by A. Martín Gutiérrez and P. Román-Gravan, analyses the use of Facebook to integrate all the information from QR codes. The results show its usefulness for acquiring instrumental, interpersonal and systemic competencies. This research was conducted at the University of Seville, Spain, and the University of Carabobo, Venezuela. This article deals with competency-based training from adaptation to the EHEA together with the use of social networks for learning.

In "Self-assessment via a blended-learning strategy to improve performance in an accounting subject" by V. M. Gámiz et al., the authors show a methodology that lets students that are enrolled on the General Accountancy subject to carry out online activities for self-evaluation as if it were a final exam. The results show that the students positively value the interestingness and usefulness of those activities on the platform, and show a positive correlation between the activity grades and the final mark obtained in the subject. This research was conducted in the School of Economics and Business Science at the University of Granada, Spain.

The article "Learning by comparing with Wikipedia: the value to students' learning", written by the lecturer A. Meseguer, looks at the students' perceptions of the quality of Wikipedia. This work is based on a comparison-based learning methodology, wherein students compare Wikipedia content to other standardised academic learning materials. The results show that the active use of Wikipedia in the learning process improves the students' academic output. This research was conducted during the UOC's Master in Information and Knowledge Society.

In "Cooperative learning in higher education: differences in perceptions of contribution to the group" by F. Jareño et al., the authors show a problem-based learning methodology. They analyse several aspects relating to cooperative learning, like, for example, effort, participation, group organisation, communication, cohesion and overall perception of self-implication in work and cooperative learning. The results show that the students' perception of their own contribution to cooperative groups is greater than that of their classmates in the group. This research was conducted in the School of Economics and Business Science at the University of Castilla-La Mancha in Albacete, Spain.

4. Future trends

It is apparent that e-learning is, after some considerable time now, an unquestionable reality. From the review of its history and content it is possible to determine its present situation and get an insight into its future trends. In this sense, we wonder: how will e-learning evolve over the coming years?

If a concise historical review is made, we can see that twenty years ago the learning environment was based on both distance and live presentations in a completely synchronic manner. Later, at the end of last century, presentations evolved towards the video format, first in analogue and then in digital format. In both cases, the methodology focused on the mere transmission of content, making the learning environment more pleasant, but still a self-learning one.

The advent of virtual worlds placed the very centre of learning at another level; campuses became virtual worlds and societies that transformed self-learning environments into cooperative learning platforms. Technological tools

7

have now changed and the combination of the Internet and asynchrony shapes an amazing future for e-learning where pedagogues and designers of both content and containers will necessarily have to meet.

Thus, the main challenges for the future posed by e-learning, such as learning methodology, have a more qualitative aspect. It is not about great transformations (such as the shift from self-learning to cooperative learning) any longer, but instead about adding new qualities to the methodology itself. In this sense, four aspects are emerging in online training: (1) the democratisation of content, (2) the addition of elements to foster the students' motivation, (3) the efficient management of virtual teaching and (4) the establishment of a tighter link between training and profession.

Some of the elements that nowadays focus much attention on e-learning and the potential drivers of its evolution are presented below. It is likely that not all of them will evolve at the same speed or have the same effects, but it seems that there is some consensus on the elements to which attention must be paid.

The first of the elements that make up the future trends of e-learning is the advent of massive open online courses (MOOCs). Indeed, 2012 was called the MOOC year. MOOC platforms are being developed massively in many countries (FutureLearn in the United Kingdom, Iversity in Germany, OpenLearning in Australia or Miríada X in Spain) (Sharples et al., 2012, 2013).

The components of MOOCs are technology that permits massive enrolment and management of a large number of students, and elements that make it possible to draft and plan learning on the basis of a set of documents and visual elements that, when adequately planned, is appropriate for persons with the right competencies to manage time and systematise their own routines, while at the same time fulfilling the schedule that online education implies. There are three important elements when defining MOOCs. The first is determining the role of classmates in the learning process. The second is role sharing -interchangeable- between trainee and trainer. The third and final one is the difficulty of defining the business model. At this moment in time, the MOOC drop-out rate is between 75% and 90% (Poy & González-Aguilar, 2014).

Another noteworthy element is badges, prizes or rewards. Any participant in a training course has an interest in obtaining gains and prizes in the short term, even if he/she knows that the process is long and will need considerable commitment. Seemingly, it is clear that the future of badges is to integrate them into some kind of internationally recognised system that will be able to make the prizes obtained more easily recognisable. Though in an informal way this has already been attained (Mozilla Open Badges, 2014), its incorporation into formal learning models is still pending. However, and although they have only now drawn more international attention, it is necessary to recognise and to do justice to past initiatives that followed this line of recognising intermediate goals like, for instance, the UOC's progressive degrees that intended to align people's training needs with their experiences and professional goals.

However, badges may have a component that makes them different. On the one hand, the game component, which allows people to earn or win them as if they were scores and thus to establish rankings or competition among other people. On the other hand, predictable length as an element that tests competencies in an area that may develop very rapidly, particularly as regards knowledge and professional accreditation, which can be obtained in two ways: from courses and training done in both online and offline environments, and by recognising courses given as trainer.

The tools for analysing e-learning also have a promising future. Obtaining information, beyond data collection, is high-value knowledge for the trainer. The analysis focuses on what attracts the student's attention and, above all, if this attention or time devoted to it is the one foreseen by the trainer, as well as on understanding what the key resources and invisible resources are. Regarding the latter, reference is being made to those that theoretically

should be used by students but in practice are not, yet are discoverable through a relentless analysis of such tools. All of this can make presentations and the use of resources more rational and efficient, and establish a cost-benefit analysis that is not only educational but also economic. An element for debate, no doubt.

In recent years, standards such as SCORM (shareable content object reference model) have been broadly used. The emergence of other kinds of activities and elements beyond computers, mobiles, tablets, simulators, etc., is leading to new standards -like, for example, the Tin Can AO PI- that responds to the need to measure actions and reactions of a learning process, regardless of where they are undertaken, be it online or offline.

Last but not least, it refers to the concept of gamification, that is often related to badges, prizes or rewards, which responds to the need to add elements that allow a link to be established between the participants' motivational aspects and the pedagogical and teaching objectives. A quick evolution in this field is very likely; one that combines flow aspects (an element that makes the participant lose track of time by focusing his/her attention on certain elements and disregarding others) to gain or develop certain abilities such as decision-making in low-information contexts. In this field, the simulation of business games, for example, helps to present situations where decisions have repercussions in accordance with economic and market criteria. This allows situations and cause-effect decisions to be inferred. The success of gamification may come from its capacity to give credibility to its inclusion in learning processes.

5. Conclusions

This Special Issue gathers some approaches on e-learning from different subjects related to Economics and Business. From a legitimate interest of pedagogues and technologists in these subjects, professionals involved in learning processes have been consciously or unconsciously removed from most of the debates in this field. The criteria established under the EHEA have directed lecturers' activities towards finding a balance between content quality assurance and the most appropriate methodology to use in virtual teaching environments. According to the process of learning-by-doing, content quality assurance will undergo a more and more intensive use of more and more complex methodologies and technologies, due mainly to the evolution of the lecturer's role and the consideration of cooperative learning as an unquestionable reality. Future trends confirm that this evolution will be successful if it is based upon two pillars: on the one hand, the capacity to generate enthusiasm and commitment between lecturers and students, and on the other hand, on the need to align learning results with processes of developing necessary competencies so as to improve the employability of people and their recognition by society. It is within this context that the higher education rationale lies and in which all professionals in the field of Economics and Business are involved.

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About the authors

Josep M. Batalla
jbatalla@uoc.edu
Senior Lecturer, Open University of Catalonia (UOC), Spain

He holds a degree in Economics and Business Science and a PhD in Economics from the University of Barcelona (UB), Spain. He has been a lecturer at the UOC since 1998, where he has been the academic director of the Business Science (2000-2004), ADE (2001-2003), Labour Science (2002-2003) and ADE (2013-2014) degree programmes. He currently coordinates the Management & e-Learning (MeL) research group, which is associated with the eLearn Center. He is involved in various innovation and e-learning projects. He is a member of the Economics of Education Association (AEDE).

Eva Rimbau

erimbau@uoc.edu

Lecturer, Open University of Catalonia (UOC), Spain

She holds a PhD in Business Administration and Management from the University of Barcelona (UB), Spain. She has been a lecturer at the UOC since 2004, where she has been the academic director of the Labour Science degree programme, the Health and Safety master's degree programme, and the Economics and Business Studies Postgraduate Section. She has led or participated in the process of adapting a number of degrees to the European Higher Education Area, and is a co-author of the first guide to assessing cross-curricular competencies in online Economics and Business Studies degree programmes. She is a member of the Management & e-Learning (MeL) research group, which is associated with the UOC's eLearn Center, and of the Observatory of the New Economy (ONE), which belongs to the IN3-UOC. Her interests in teaching research revolve around e-learning management, the development and assessment of cross-curricular online competencies, and the recognition of informal learning.

Enric Serradell

eserradell@uoc.edu

Senior Lecturer, Economics and Business Studies Department, Open University of Catalonia (UOC), Spain

He holds a degree in Economics and Business Science and a PhD in Economics from the University of Barcelona (UB), Spain. His main lines of research are related to the management and analysis of elements that provide companies with a competitive edge, a subject area within which he has produced a considerable volume of teaching and research materials. He is a member of the UOC's eLearn Center, a research centre on e-learning, in particular in the field of university education and continuous education.

UOC

Av. Tibidabo, 39-43

08035 Barcelona

Spain