

e-Learning in European Management Education: the Implications of the EFMD's eXeL Project on the Integration of Information Communication Technologies

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Abstract

The eXeL research project is supported by the European Union and aimed at analyzing the development of e-Learning in Management Education in a group of prominent European business schools. As a product of its engagement with these issues, the European Federation for Management Development (EFMD), has developed a new Certification of e-Learning (CEL), the first worldwide accreditation of e-Learning supported programs in the field of Management Education. The main objective of the eXeL project was to examine how e-Learning has been affecting the development of European management education, and to exchange experiences and knowledge. A report entitled, “eXploring e-Learning: Exchanging Experiences and Best Practices of European Management Education”, was published in 2003. Given NUCB's interest in becoming a member of EFMD, and its significant investment in an e-Learning infrastructure (a wireless campus, Blackboard Virtual Learning Environment, Enrollment Management), this article examines the implications of EFMD's research. The aim will be to aid the cross-cultural understanding of the role of e-Learning in Management Education, and to reflect on how business schools are developing international quality standards for the use of ICT.

Introduction

Since the early 1990s e-Learning has emerged as a powerful pedagogical force across the international educational spectrum (Zaphiris & Zacharia, 2006). All major industrial nations have quickly understood the role of ICT to support the development of globalization and what has been called the knowledge economy or knowledge society. Major initiatives have been sponsored by the European Union, the USA, the UK and Japan, to foster the conditions necessary for harnessing the potential of the new technologies. The influence and potential of e-learning is also evident in the United Nations' recently concluded World Summits on the Information Society (WSIS).

In Japan, for example, 2001 saw the beginning of the first phase of the e-Japan project. This committed Japan to the development of an ICT infrastructure by 2005, principally high speed Internet access for 30 million households, and ultra high-speed access for a further 10 million. In 2003, the second phase announced goals for the development of e-Government, e-Commerce, and the use of IT to support a knowledge-based economy. In 2004, the u-Japan project was articulated, with the aim of realizing the ubiquitous network society of the future, in which anyone can interact with ICT by the

year 2010. The vision of this society includes one in which mobile networks are available anywhere, anytime; broadband environments utilizing cable and wireless technology are evident; consumers rely on digital broadcasting; and the use of one device such as a television functions as the ICT gateway in each household. As opposed to an ICT infrastructure based on virtual reality, the vision of ubiquitous Japan depends on the opportunities offered by mobile computer technology to be invisibly integrated into users' everyday working and leisure environments (Uesugi, 2006).

Unlike distance learning, which took almost a century to achieve acceptance by the international academic community, e-learning has done so within a period amounting to less than ten years (Keegan, 2003). E-Learning describes the use of new multimedia technologies and especially the Internet to improve the quality of learning by enabling access to learning resources as well as distance-based exchanges and improved collaboration (Kukulska-Hulme & Traxler, 2005). The emphasis of this definition on the words 'improve the quality of learning' and 'enabling access to resources' demonstrates that much of the recent research recognizes that all too frequently the use of new forms of computer aided instruction has lacked a clearly visible rationale (Thomas, 2005). If it is to be successful, e-Learning must demonstrate its value-added dimension within existing pedagogical contexts, clearly articulating why and how it is to be used effectively to supplement existing learning environments.

In response to the increasing prominence of e-learning, the eXeL research project, entitled "eXploring e-Learning: exchanging experiences and best practices of European Management Education", was founded to investigate the role of e-Learning in management education among Business Schools in Europe. Funded by the European Union, the central objective of the eXeL project is to understand how good practices of e-Learning in European management education have been developed and how they could be spread throughout Europe, thus creating the basis for the review, exchange and transfer of experiences and policies among management educators and trainers. Under the heading of the European Union's eLearning Program, Preparatory and Innovative Actions, the European Federation for Management's eXeL project is jointly co-ordinated by three institutions: the Istituto Studi Direzionali (ISTUD), the European Federation for Management Development (EFMD), and Ecole de Management Lyon (E.M.Lyon). In order to understand these developments, and their implications for other prominent organizations who have thus far accepted the responsibility to promote ICT, this article examines the context and recommendations of the report for the future policies of business schools.

The Aims of the Research

The eXcel project developed from a need to understand the new terrain of e-learning teaching and research in management education. The agreement with the European Commission led to the articulation of four main objectives:

- identify good practices of the application of e-learning to management education in Europe
- study the conditions necessary for the successful transfer of innovative practices and policies
- analyze the added value, trends and crucial issues on the application of ICT to management education processes
- disseminate the results to a wide cross-section of the European public

In order to achieve these objectives, the research was based on three core peer-to-peer activities:

Extensive survey: conducted with a large group of Business Schools associated to EFMD in order to identify the decision making processes and the different strategies in the implementation of e-Learning policies applied to management education.

Interviews with opinion leaders: addressed to all the internal and external stakeholders of the e-Learning industry - final users, associations, institutions, suppliers and experts - with the intention of articulating an overview of the extant situation, and to identify the most important future trends for e-Learning applied to management education.

Case studies: 15 Business Schools were selected in Europe with e-Learning programs developed in executive education; the case studies' objective is to understand how good practices have been developed and under which conditions they could be reproduced throughout the infrastructure of European education.

Using these instruments, the project has helped to articulate an additional three primary tools to aid the adoption of information and communication technologies in the context of management education. The first is the Management Education Matrix; second, process and centric models to show the link between model learning and institutional sponsors; and third, a learning technologies framework.

The instruments are concerned with how ICT can be used to enhance learning processes in management education; to examine current practices in e-Learning; provide an agenda for the future of e-learning in higher education; and support a forum for discussion and debate.

The growing emphasis on the importance of e-Learning stems from the prominent place adopted by the knowledge economy and the knowledge workers of the future. These information workers have two central educational needs at present: an appropriate formal education and training that enables them to enter the workplace; second, a relationship with a process of continuous management education and training which enables them to keep up to date with the changing dimensions and contours of their discipline. As workers in management education are normally required to attend learning environments during non-traditional meeting times for full-time students, e-Learning has developed as an alternative and accepted medium of instruction.

Second, the emphasis of the European Union's Bologna Accord, and its desire to harmonize the education systems of over 40 different EU states, will have a major impact on both Bachelor and Masters level programs in management education. As a consequence, the higher education marketplace in Europe is set to become even more competitive over the coming five to ten years.

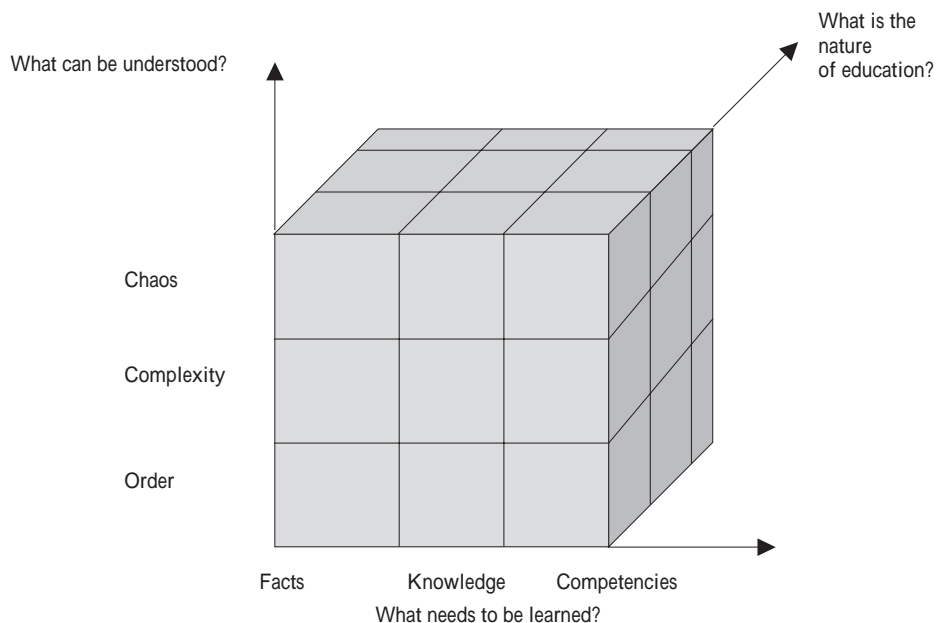
The third major trend in higher education management relates to the growth of the corporate university sector over the last two decades. In response, traditional educational providers have begun to develop links with business and private enterprise, as well as developing negotiable types of study and training programs that management education students can customize within a flexible learning framework. Accumulatively, these three trends have resulted in a realignment of the traditional

conceptions governing management education in the higher education sector, and an attempt to synchronize education and training with the demands of the new market. The pressures of the market have led to a renewed emphasis on foundational questions that will determine the future direction of management education across all sectors of provision: What is the primary objective of management education? Who is best placed and qualified to deliver the highest quality of training? What position does learning and instructional technologies have in this changing terrain of provision? How can learning technologies be used to support the needs of management education students who, predominantly studying while engaged in work, require improved communication and interaction with fellow students and faculty?

A Management Education Matrix

Given the current diversity of student needs and requirements in the e-Learning age, how can management education within the higher education sector respond to these questions? In their contribution to the report, Schlenker and Alvarado articulate the model of the Management Education Matrix, which addresses these questions across three distinctive continuums: a). the content of institutional programs, b). pedagogical content, and c). the idea of pedagogy as a social process. The goal of this model is to allow institutions to profitably examine and measure their strengths and potential to adapt learning technologies to the process of learning they advocate.

Fig. 1 The Management Education Matrix



What is the relationship between the higher education sector and its main customers, faculty, students and members of the external business community? In order to answer this question we must look more closely at the components of e-Learning.

What is e-Learning

A number of definitions of the term e-Learning are identified in the eXeL report. Firstly, it associates e-Learning with the attempt to improve faculty and student interaction via collaborative learning; to use the technology to connect traditional learning institutions and learners in the corporate sector; the idea that e-Learning establishes connections between learners, faculty and learning resources; or to extend the definition to include the whole technical and administrative infrastructure of an institution's ICT policy. The report's favoured definition combines components from all of these areas, but proposes an explanation that emphasizes the embedded nature of e-Learning in particular: 'we would like to propose that information technology can contribute to embedding the management education process in the context of individual activities, companies and markets. To understand the potential of E(mbedded)-learning, we need to focus on "learning" rather than the "e-" ' (Godio et al, 2003, p. 19). In order to meaningfully pursue the implications and appropriateness of this definition, a series of questions about the pedagogical assumptions of the institutions in question, need to be clearly articulated:

1. Are our students trying to develop knowledge, aptitudes or competencies from their experience with management education?
2. Should our learning agenda be geared to teaching or reformulating responses to known problems, or to developing student's capacities to question or reframe the problems themselves?
3. Should the focus of learning be on the individual, on the team or community in which a student participates?
4. Should learning be designed to optimize the classroom environment or mirror the real world?

These questions and the answers that they receive will play a large role in determining the nature of the e-Learning environments to be selected. Embedded learning, which seems to have developed as a hybrid term that combines e-Learning and distance learning, is popular in relation to the world of corporate training as it attempts to provide solutions that recognize the validity of working in contexts outside of the university. In this situation a form of applied learning needs to be developed, such as is proposed by the increasingly prominent developments taking place in mobile learning vis-à-vis the corporate sector.

The Process-centric View of Management Education

The report advances a process-centric view of management education. That is to say, management education should be approached as a 'set of processes with inputs, activities, costs and outputs' (p. 20). An institution of higher education, to follow this model, relies on an initiating act from the students, here interpreted as the 'clients' demands for education'. Clients come from a variety of different backgrounds (traditional students, unemployed, company executives, company workers), and bring with them a series of varied accompanying assumptions, demands and expectations about the products they want from education and training providers. The report identified five sub processes to which educational technology can be used in a value-added dimension:

Recruitment and Profiling

The pre-program process of recruitment and student profiling can be aided by ICT to measure skills and competencies, both at the beginning and end of the program.

Content Development

While the emergence of new Virtual Learning Environments (VLE) such as Blackboard and WebCT have promoted higher levels of quality assurance in terms of course outlines and related information, they have as yet done little to challenge the emphasis merely on storing course descriptions and content. More emphasis should be placed on developing content that stresses the value-added dimensions of e-Learning.

Content Management and Delivery

The report advocates challenging the physical constraints of the classroom as well as the taken for granted assumption that all ICT can do is to enhance lectures with the aid of PowerPoint slides. The far-reaching consequences of ICT have to be better harnessed and applied to managing the dissemination of knowledge more effectively, creating learning environments that are stimulating for instructors and students, especially those in the corporate sector.

Evaluation

The role of information technologies in student evaluation is already significant, either in terms of helping with the formation of examinations or collating and publishing results. The report proposes an attempt to use ICT more effectively to synchronize ‘evaluation metrics’ with students’ ‘specific skills profiles’; used to deliver more accurate tests of students’ interaction with more practical business problems; and provide a more effective system to assess student performance against specific target populations.

Compensation

Management education students traditionally place the emphasis on acquiring new skills to lead to enhanced job prospects, and that their training institutions will support the development of networks to assist in this process. The report identifies a role for ICT in developing new business relationships and in communicating its service offer more effectively to its clients.

A Learner-centric View of Management Education

Questioning the emphasis placed on the notion of education as involving a series of processes, the report stresses the metaphor of networks. The report draws on the work of Marc Alvarado in this respect, establishing that a series of four circles of network relationships engird learners involved in management education: first, prior experience; second, formal education; third, a team, class or group that shares similar aims and conditioning environment; and fourth, the learner’s social network of relationships.

Such a conceptualization also draws on the work of Peter Drucker, foregrounding the place of the

individual rather than the institution as the driving force to improve the provision of corporate education. Drucker firmly believed in the role of management education to concentrate on disseminating knowledge rather than an aptitude-based form of education. Formal education is being seriously challenged by the conventions and expectations of the knowledge economy, where individuals will be expected to work in several different jobs and industries over a period of decades. ICT can be used to deepen and broaden the relationships and degrees of interaction between learning and the learning environments.

In the first circle, learning technologies could be used to improve the process of evaluation, create mindmaps, surveys and simulations, as well as promote the use of self-administered courses to act as prerequisites for a series of more formal learning sequences. To aid the second circle of influences, ICT can be deployed to support online libraries, document stores, and simulations, in order to improve the presence-based components of courses. To improve the third circle of networked relationships, e-mail, discussion forums, and collaborative writing can be used to further narrative management techniques. Finally, the fourth, circle of learning can be used to introduce chat, voice over IP, and weblogs, to promote interest and interaction. In all of these areas ICT can be integrated to manage the new dimensions of space and time that will come to dominate the provision of management education in the near future. A focus on learning networks highlights the need to examine the effects of reducing time and space between students and their sources of motivation in the new ICT mediated learning environments of the future. The emphasis should shift from courses and programs of study towards levels and interaction between individuals and their different learning communities, stressing how it is possible to improve quality and community interaction, rather than on measuring the transactions involved in these environments.

Evidence from the Survey and Case Studies on e-Learning

Between June 2004 and October 2005, 198 European business schools, all of which are members of the EFMD, were surveyed with the aid of a questionnaire. The survey sought to collect data about each organization's e-Learning strategies and the quality of the provision provided. A number of areas were targeted:

- Practices
- Approach
- Target of e-Learning initiatives
- Economical sustainability
- Partnership between organizations
- Decision making process behind e-Learning
- Standard compliance importance
- Change in the role of the trainer

Of the 198 EFMD affiliated business schools, 57 responded (26,7%). These organizations can be categorized in terms of similar size, average revenue of approximately 19 million Euro, number of employees (slightly above 150), with on average fifty years since their foundation. Although schools were drawn from seventeen European states, there was an especially high incidence of respondents from

France and the UK. Surveys were completed primarily by Deans (46,1%) or Executive Education Managers (30,8%), indicating the high profile that e-Learning policy has assumed as one of the driving forces of pedagogy and management in higher education business schools.

The survey reveals that e-Learning has been an integral part of the schools' pedagogical environment since 1997, with 11,8% indicating that they rely only on classrooms without any e-Learning component, a further 11,8% have both classroom and e-Learning courses in a non-blended environment, and 76,5% have both classroom and e-Learning in a blended solution. Nevertheless, the blended approach remains rather limited in terms of the schools' overall strategy, as only 60% of institutions use it in not more than ten-course programs. This figure reaches 80% when pure-online products are considered. This reflects the potentially high investment required to pilot new e-Learning initiatives, as funding typically comes from an institution's own resources (55,1%) rather than from the private sector (19,6%) or public funding (25,3%).

In addition to cost, a number of other factors must be considered. E-Learning typically requires the acquisition of new staff, and outsourcing of various tasks and responsibilities was especially significant, particularly in the area of technology (72,7%). Interestingly, however, the impact of e-Learning initiatives has been seen as rather limited until now. On a scale of 1 – 7, the perceived impact of e-Learning achieved an average of 3,5, and its impact on organizational changes and processes 3,2%. Its future impact, however, achieved a higher grade of 4,8, indicating the full impact of e-Learning initiatives is yet to be seen. The impact on actual training (need analysis, design, delivery and evaluation) achieved average ratings between 3 and 5, revealing the emergence of two clusters of organizations, each characterized by different position to e-Learning strategies.

Group 1 institutions have a long tradition which has served to acquire for them a prominent position in their respective national and international markets. While e-Learning is relevant to the institutions' strategy, it has not changed the schools' relationship with the market of educational provision, and had little impact on their identity. Nevertheless, this category of institution has been more effective in the market place, and acquires most of its funding from the private sector.

The second group of institutions identified also have a solid position in the market but one that is rather more recent than Group 1 institutions. Their age makes them more open to interpreting e-Learning as posing a radical change to the marketplace and organizational structure of management education institutions. They have instigated new research into the future of e-Learning, but they have as yet failed to turn them into a significant return from the market. In both clusters of institution, e-Learning still accounts for a small number of projects and face-to-face training is still the dominant force in their provision.

The case studies reveal an emphasis on three main areas as follows:

e-Learning as support for individual study, group work and interaction

This approach uses e-Learning to promote distance learning programs, long-term and part-time masters courses, aimed at executives. The approach integrates modules in which class-work is used alongside distance learning supported by an e-learning platform.

e-Learning as an indispensable tool to reach a global client base

The focus on a global client base brings with it the need to adopt to specific business issues. The approach that emerges is thoroughly customer oriented, and the teaching strategy specifically targets students' need and teaching objectives. E-Learning is a solution to the problems presented by the issues of space and time, and insures the possibility of a flexible course of study. In this context, e-Learning does not play a merely supporting role, but makes its sole objective the enhancement of interaction with participants.

e-Learning as a response to a specific market's needs

The use of e-Learning to access markets from which they are otherwise separated by huge distances is the third area identified by the report. E-Learning in this context is indispensable to the learning process, and allows a far higher degree of international integration than would be permitted by either distance or face-to-face learning.

Results from all three strategies indicate the predominance of blended learning within management education providers in Europe. This strategy is common to both university business schools as well as the new corporate universities. Types of pure e-Learning have been rejected by providers in favour of a combination of classroom, distance and synchronous strategies; nevertheless, the classroom remains the place from which knowledge is still more or less disseminated. The report delineates a number of points necessary for the development of good practice in the area of blended learning:

- Limited organizational impact
- Separation of educational roles
- Separating the learning process between class and distance modes
- Support by top management
- Promotion on the market by creating a specific brand for the online product
- Development of an approach, which creates value by adopting technology
- Design and use of multiple channels
- Continuous product innovation
- Management of the value chain of the online product
- Strategic value of distance interaction for the creation of a community of practice
- Critical importance of the relationship between students and tutors/teachers and the consequent need to invest in training

Conclusion

Developments in e-Learning over the last ten years have already had a profound effect on the provision of education, especially in the adult education sector of the market. The popularity of e-Learning has gone hand in hand with the increasing commitment to lifelong education and extending access to all sectors of the population. Consequently, there is a demand for less expensive training programs, an outcome that programs based on lower residency commitments and lack of presence based teaching can promote. In terms of management education, three main product areas have emerged in e-Learning to

meet these demands:

- Part-time executive masters programs which have modules in different countries and institutions
- Corporate education programs where the trainers and students are in different locations
- Programs for geographically distant countries where e-Learning can be used to align content and methods, as well as promote communication

For schools still attached to localized markets, e-learning can often develop with a limited relationship to good pedagogy, and could have been forced onto an institution without clear aims. Given this outcome, the report calls into question the motives of adapting e-Learning, recognizing that there has been a shift from technology being viewed as a 'strategic lever for development' to a 'factor enabling efficiency and enhancing process rationalization' (p. 65). This has resulted in a distinctive separation of ICT from the learning process, rather than the often perceived process of integration, within business schools. There is thus a weak correlation between the new development of organizational forms and the developing instructional technology. Much more marked, however, has been the drive within business schools to see ICT as a response to the increasing globalization of higher education, especially in management education, and the need to fulfill perceived weaknesses in their provision of courses. As the report describes it: 'technology operates more as a medium than as an end in itself, exploited as a pretext for integrating different skills with a higher objective: to be the global player in the education market' (p. 65). This conclusion raised serious questions about the objectives of introducing e-Learning and the rationalization used to justify it in business schools. More thought and consideration must be given to the development of a sound pedagogical basis for ICT and an attempt to integrate the major infrastructural elements within contemporary higher education. Jochems, van Merriénboer and Korper (2004) provide criteria for such an evaluation, arguing that three central factors must be considered by all such processes:

1. Pedagogical
2. Technological
3. Institutional

Their timely study of blended e-Learning suggests that its introduction should not be interpreted merely in terms of an addition to existing instruction, but as a real innovation, that demonstrates how it can become a lasting part of the management education infrastructure, and exhibit the often called for but rarely identified 'value-added' dimension. In order to achieve a satisfactory level of integration, these three dimensions must establish a harmonious interrelationship:

... organizational, pedagogical and technological aspects have to be managed in harmony in order to solve an educational problem adequately. For example, the implementation of an instructional approach will be much more powerful if it is to be anchored in both the organization and the technological instrumentation. For the same reason the introduction of e-learning will have far more impact on education if it is able to support the organizational and instructional concepts that courses are based on. (Jochems et al, 2004, p.7)

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