

E-Learning Tool for Regional Development

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INTRODUCTION

As opposed to the computer-based training of the 1980s, the term *e-learning* is most frequently used to refer to computer-based training which incorporates technologies that support interactivity beyond what would be provided by a single personal computer. E-learning, therefore, is an approach to facilitate and enhance learning through both computer and communication technologies. Such devices can include personal computers, CD-ROM, digital television, PDA, and mobile phones. Communication technologies enable the use of the Internet, e-mail, discussion forums, collaborative software, classroom management software, and team learning systems.

E-learning plays an important role in the information society because effective learning occurs where there is active social communication and interaction. Active approaches to effective learning present learning as a social process that takes place through communication with others in space. From a social perspective, a learning region is defined as a place where people learn how to use collective activity to solve problems, decide, and act together. As this learning environment matures, its elements gain new knowledge and skills and share them, valuing their joint commitment. When learning interactions occur electronically, the resulting environment is usually referred to as an online learning community or a virtual learning network. The importance of e-learning has been emphasized by recent studies which examine it as a platform where not only individuals learn but where the region or the community as a whole also learns. This aspect has been analyzed through the discussion of the impacts of e-learning on human and social learning. How the

learning agents gather and apply pertinent information to create knowledge is a critical issue. Thus, it is necessary to investigate how knowledge is produced at the community or region level and not simply how the information is shared and how individuals learn. Traditional learning models do not necessarily apply to e-learning platforms because key factors of these last, such as multiple identities and the delivery of communication channels supported by technology, affect the way they develop and operate. The appropriate models to e-learning environments need to address what processes learners follow and what languages they use to interact under online conditions. In other words, they have to capture the social dimension of an e-learning environment and not only focus on its end products. And this means to analyze how and why individuals become electronic learners and the processes they use for collective learning.

The fundamentals of a learning network require more time to develop in electronic social settings than in face-to-face traditional interactions. Longitudinal analyses are required to capture mature social learning processes which contribute to sustain the network for lifelong learning. This depends on the relationship between the components of learning and technology where this last should be personalized and self-adaptive to socially mediated processes. In fact, contents, bits, learning, and cognitive science are converging into “knowledge media” as stated by Eisenstadt (1995) where knowledge is no longer fixed in time or structure. Technology should have the capacity to capture and index knowledge construction patterns and to allow users to manipulate the knowledge databases (Tu & Corry, 2002). Knowledge mining and construction are critical processes for users to be able to readily locate

and retrieve information. Effective knowledge management can lead to significant improvements in learner performance and should be stressed in strategy, policy, and practice at all levels of the learning environment. This requisite encompasses identifying and managing knowledge assets as it involves the generation of new knowledge for competitive advantage within the learning region/community. Those levels include the access to vast portfolios of information, the sharing of best practices, and the support of innovating technologies like groupware, databases, intranets, and so forth.

The incorporation of several forms of media allows e-learning platforms to grow and create a more dynamic interaction between users. Programmers and creators of e-learning platforms should have a deep concern for technological skills. As e-learning platforms demand a constant interactivity between user and computer, the process has to be personalized in such a manner that the user may expect to find the best and most objective information regarding his learning choices. Hence, since a platform manages and interacts with sometimes thousands of users, there is a need to organize the users' information in the form of a database to which the computer has recourse to gather the solicited information regarding the learning process, facilitating therefore the channeling of media and information towards the users window view.

HOW IS IT POSSIBLE TO INCREASE LEARNING CAPACITY THROUGH E-LEARNING?

The new knowledge-based economies still face a co-existence of two different industrial models where the territories are involved into productive organizational complexes: the Fordist model, characterized by scale production and loss of identity of the territories and the spatially oriented post-Fordist model. And the challenge of this last consists in absorbing the new principles of productive organization which simultaneously requires stability and flexibility in the economic activity, new competencies from the firms, and systematically adaptable workers to deal with the most recent innovations. These capabilities permanently demand new qualified and flexible human resources and fast informational flows. In the early 1980s in a number of European Union (EU) countries, the major policy and strategic

emphasis was placed on stimulating new firm formation. Evidence was made to attribute importance to the smallest firms in innovation and employment creation, and it became clear that the market opportunities to be exploited were a result of the survival and growth level of firms (Reynolds, Hay, Camp, & Kauffman Centre for Entrepreneurial Leadership, 1999). It is also commonly agreed that knowledge will become increasingly important in sustaining a nation's competitive advantage (Packham & Miller, 2000), particularly if the knowledge base can be created in a context of adequate use and firm advantages. In 1999, the EC also introduced a program with the goal of accelerating the uptake of digital technologies across Europe and ensuring that all Europeans have the necessary skills to use them. A new era started, in which the use of digital technologies can be an essential instrument for development, particularly when it is applied in formation and results in long lasting solutions for employment and innovation. Indeed, in this newly emerging e-economy with opened access to the Internet, the e-learning imposes the need for a new educational system able to link population to the specific needs of the firms within a dynamic knowledge-based society.

One of the main advantages of e-learning, beside the possibility to deliver information quickly and cheaply to any place among the network, is that the users can be easily analyzed so that it becomes possible to optimize the existing platform. Pedagogically, that involves some main perspectives that are taken into account when developing a platform. The concept of e-learning should be developed having in mind the new model of industrial organization previously mentioned. The characteristics of such instruments are perfectly adequate to the new challenges as it provides an opportunity for all members at the region level to engage in the new technologies and gain access to training and support to encourage entrepreneurial activity (Miller, Packham, Morse, & Pickernell, 2000). The online delivery mechanism has been designed in recognition of the need to introduce flexible methods of delivering education and training. It also provides the potential for educational institutions to develop the skills of local communities and firms which, especially in the less developed regions, are lacking in key skills as financial management, marketing, entrepreneurial, and human resource skills (Hankinson, Bartlett, & Ducheneaut, 1997). This new form of global contact can also stimulate cooperation and trust improvement

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