

# Chapter VII

## Matching Technology, Organisation and Pedagogy in E-Learning: Looking for the Appropriate Balance Leading to Sustainability and Effectiveness

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### ABSTRACT

*This chapter presents the findings of an in-depth analysis through several qualitative research studies, pointing out the key issues in relation to succeeding in developing effective and sustainable institutional virtual campuses and E-Learning provision initiatives. An appropriate balance between the issues concerning technology, organisation and pedagogy, the TOP triangle model, is needed, although every higher education institution is different and develops its activity in a particular context. In addition, the design and implementation of a strategic plan for such initiatives is highly recommended.*

### INTRODUCTION

The general use of Information and Communication technologies (ICT) is having a clear social,

political and economical effect and the field of education and training has not been spared. New social and learning needs and changes from the shift of Information and Knowledge Society have

made the universities consider ICT use as a driver of institutional change.

Dillman (quoted by Hanna, 2000) affirms universities must change in order to satisfy the new students' needs, on the basis they are a public service. In the same way Bricall (2000) states that ICT is going to be "one of the main key factors for change in universities in the very next years" (pp. 237-249). Bates (2000) and Hanna (2000) translate the felt urge for an adaptation to new realities into concrete rationales for e-learning in Higher Education (Sangrà, 2003), most notably:

- To facilitate and increase the access to education and training to a wider range of people;
- To improve the universities' economical expectations;
- To respond to the "technological imperative";
- To improve the quality of education.

One of the ways in which higher education institutions are doing this is by developing virtual campuses and other e-learning solutions which are adapted to the needs of their social contexts.

## **IN SEARCH OF EFFECTIVENESS AND SUSTAINABILITY: THE ROLE OF STRATEGIC PLANNING AND FLEXIBILITY**

Virtual campuses and e-learning provision from conventional universities implies necessary changes. These changes normally involve a whole strategic planning process with the redefinition of roles, the creation of new functions and departments, the conceptualisation of online teaching and learning, the reorganisation of administrative processes and routines, and the restructuring of educational design and production processes. Effective e-learning provision can only be understood within the context of a reconfiguration of

the organisational and pedagogical characteristics of an institution in harmony with the new opportunities and limitations the technology provides. We therefore see technology, organisation and pedagogy as a triangle of factors that are closely interrelated in a symbiotic way. An in-depth review of representative experiences of e-learning provision leads to the understanding that sustainability and effectiveness are closely related to how the institutions configure the triangle of technology, organisation and pedagogy (TOP), on which they base their educational activities.

The three elements are interrelated in their function of contributing to the provision of a powerful environment in which teaching and learning can happen under clear and defined quality parameters. Despite the fact that each institution has its own particularities that lead to the need of customising the balance between the three factors depending on parameters such as target group, size, type of contents, social and educational context, it may be considered that the right balance between the three fields can not only hugely vary with different institutions, but it can be subject to necessary adjustments as needs and requirements change over a period of time.

We therefore consider the factor of flexibility and adaptability a key factor for success in e-learning provision. Collis & Moonen (2001) and Khan (2007) have already introduced the concept of flexible learning in this context. While Collis & Moonen focus on how technology and organisational factors of E-Learning are related to the learning process change, Khan attempts to show how it is possible to create a meaningful flexible learning environment. by facilitating authentic and relevant learning activities and assessment, as well as authentic contexts that reflect the way the knowledge will be used in real life and therefore improve learning motivation. Also giving to the students access to expert advice in terms of guidance and coaching, collaborative work and the adoption of different roles and perspectives are examples to be in mind when flexible environments are being designed.

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