Chapter 8.4
A Changed Economy with Unchanged Universities?
A Contribution to the University of the Future

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ABSTRACT

Individualised open and distance learning at the university continuing education and post-graduate education levels is a central issue of today. The advanced information and communication technologies together with several applications offer new perspectives, such as the so-called virtual university. Simultaneously, to gain market share, several organisational arrangements are emerging in the virtual university field, like consortia arrangements and joint venture initiatives between and among institutions and organisations. The dynamically changing social and economical environment where we live claims for new approaches to virtual and flexible university continuing and post-graduate education, such as the concept of Agile/Virtual University proposed by the authors. However, the implementation of this concept (and of other similar concepts) does not rely just on basic information and communication infrastructure, neither on dispersedly developed applications. Although absolutely necessary as support, the added value comes from the higher-level functions to support individualised learning projects. The implementation of the Agile/Virtual University concept requires a framework and a specific supporting environment, a Market of Teaching Resources, which are discussed in the article.

INTRODUCTION

In the fast-changing and strongly competitive business environment we live, a confluence of

factors such as (1) the economic globalisation and integration, (2) the impact of technological developments, (3) the growing demand for sustainable development and (4) the emerging work systems are having a strong impact on organisations, on society and on individuals.

Advances in information technologies (IT) are now one of the major driving forces of change. IT is an essential infrastructure for competitiveness of other economic sectors, and the basis for trade, provision of services, production, transport, education and entertainment (ACTS, 1998). IT is transforming organisations into global networked structures, with processes extended through continents, creating markets and systems not just global and distributed, but virtual, in a new perspective of a global, networked and knowledge-based economy.

The fast evolution of IT is creating a huge role of opportunities, and simultaneously of challenges to organizations and to society. Organisations of every stripe try to respond to the challenges by adapting their strategies and activities; that is, restructuring to align themselves to the new requirements of the changing economy, where every sector of society will systematically use IT. These technologies support concepts as distributed systems, computer supported cooperative work, telework, electronic commerce, electronic marketplaces, virtual manufacturing, concurrent engineering, some forms of distance education, and many others.

Distance education (Web-based) seems to be a contribution towards the democratisation of learning access in particular in the domain we are concerned with - the university continuing education and post-graduate education.

According to several authors, (Evans & Nation, 1996; Khakhar & Quirchmayr, 1999) the most relevant advances in distance education over the past three decades have been in the university sector, where Open Universities represent an attempt to establish fully integrated distance-teaching systems.

However, the new approaches to learning, such as flexible and distance learning, are still at an immature stage. Although some of these concepts have existed for several years, there is not yet a clear understanding of the way these approaches will evolve and become useful and common practices.

Another concern is that systems conceived to provide integrated standard off-the-shelf learning solutions are less efficient when compared with dedicated systems. Providers of units of learning, primitive or complex[1], can be integrated in completely individualised (customised/tailored) flexible Web-based networked learning projects, which in turn can be agilely and dynamically adjusted to either the performance of the providers or to the learner evolution or changing requirements. This corresponds to a new structure of learning for each individual (learner) while, at the same time, each provider (teacher) can specialise himself in focused units of learning, and get economies of scope by providing - with high quality - this same unit in several different learning projects. This concept requires an environment to cope with several concerns, such as assessment, accreditation, quality assurance, trust, and so forth, such as the Market of Teaching Resources here proposed, and must be mediated by a broker.

IT innovations are stimulating the growth of markets for educational services and the emergence of for-profit competitors, which could change the higher-education enterprise (Goldstein, 2000).

In this contribution, we introduce the Agile/Virtual University (A/V U) concept, as an integrated set of providers of units of learning that is integrated to respond to an individualised need. The product provided by the A/V U is an *individualised learning project* (a continuing training/education course). These providers can be universities, university teachers and individuals (independent teachers), organised and managed by either a higher-education enterprise or a university

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