

Virtual Organizations in Post-Graduate Education in Egypt¹

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BACKGROUND

New online learning techniques lead to improved ways to investing in larger numbers of people and optimizing the use of resources. Respectively, virtual organizations are gaining grounds in the education sector with its vehicle capable of closing the digital divide and spreading knowledge that can help improve the literacy rate. This article covers the case of the Regional IT Institute (RITI), an institute located in Cairo, Egypt, that specializes in providing quality education in the fields of information and communication technology and management. The institute's goal is to educate more students while overcoming the challenge of scarce resources, trying to meet the needs of 30% of the population (70 million) enrolled in education programs (Economic News Bulletin).

The model used by the institute in delivering its programs is a hybrid model that combines traditional with unconventional techniques, capitalizing on normal class settings as well as advanced information and communication technology tools. In 1985, information technology was prioritized on the national agenda by the government of Egypt, so information technology became one of the building blocks of the development process. Moreover, in 1999, the Ministry of Communication and Information Technology was established to accelerate the build up of the nation's information and communications infrastructure and the creation of a mechanism for knowledge acquisition and dissemination to bridge the gap between "the haves and the have-nots," both internally and with the developed world.

VIRTUAL ORGANIZATION EVOLUTION

Continuous innovation in information and communication technology is leading to the evolution of virtual organizations with different forms and structures. The

virtual integration of its capacities—irrespective of time, effort, and distance barriers—enables it to become more competitive and to achieve market differentiation and better performance (Appel & Behr, 1997). Virtual organizations (defined as interconnected organizations capitalizing in their internal and external communication on evolving IT tools and techniques) help in consolidating and rationalizing the resources allocation that is vital in the 21st century, since the focus will be on addressing information and knowledge intensive issues where the critical element is people or "humanware" (Kamel, 1998). The concept of virtualness will be important to help in training and educating more people on diversified subjects (Kamel, 1999). However, the virtual organizations' success will mainly depend on whether the knowledge distributed is accessed by the right people, at the right time, from anywhere around the globe.

Egypt and the Knowledge Economy

Since 1985, Egypt has invested heavily in human resource development, with over 1500 training centers established across the nation's 27 provinces, and has had a remarkable impact on the skills and knowledge development of the populations in these areas. However, with over 14 million students in schools and universities, the challenge is to develop different type of programs to educate and train more people, given the limited resources. Therefore, a virtual learning model represents an opportunity that could help realize educational and training objectives if the learning model could be disseminated among the community of learners and educators. The model could be in the form of strategic alliances with institutions worldwide to deliver degrees for the local market using state-of-the-art information and communication technology. This would not be an unusual model or one difficult to conduct. However, the successful implementation of this model would depend on a focus on details, such

as following up with students, coordination between the alliance administrations, and adaptation of the cultural aspects.

The Regional IT Institute (www.riti.org) uses a virtual learning model like the one just described. It is a hybrid of tools and program techniques selected and tested to match the needs and requirements of the local market in Egypt and adapted to the cultural values and norms of the community of learners. The model represented by the Regional IT Institute works as a base for a satellite of programs conducted in cooperation with a multiplicity of institutions worldwide. The institute was established in 1992 to support in the transformation of the society using the latest technologies and methods in education and training; its motto is "Building through learning." The Regional IT Institute programs are jointly delivered with collaborative institutions disseminating knowledge through the use of hybrid methods including class sessions and distance learning techniques. The model is built around trust between the involved parties (Brigham & Corbett, 1996) and with neither a hierarchy in place nor a leading role played by any of the involved parties (Appel & Behr, 1997).

A VIRTUAL LEARNING MODEL

The Regional IT Institute is a not-for-profit organization supported financially by its programs. It is a leader in the market and extends its services to countries in Europe, Africa, and Asia. As of December 2003, the Institute, through its virtual model, has enrolled over 1,250 students in its post-graduate degree programs (611 have graduated) and over 13,000 students have participated in its training programs, representing 1,100 organizations in 90 countries. The Institute has a state-of-the-art information and communication technology infrastructure that is a key success factor enabling the connectedness to its partners, whereas being connected to its partners is the enabling factor to and thus realizing organizational virtualness. This same state-of-the-art infrastructure also serves as the platform for information acquisition and knowledge dissemination (Byrne, Brandt, & Port, 1993; Davidow & Malone, 1993; Goldman, Nagel and Preiss, 1995). The Institute uses a hybrid of technologies for knowledge delivery that encompass a mix of traditional and innovative methods, including tutorial sessions, lectures, seminars, the use

videoconferencing, WebCT, CDs, and computer- and video-based teaching.

The Institute jointly delivers post-graduate degree programs in collaboration with universities in Europe (the Netherlands and the UK) and the United States. The virtual learning model revolves around the selection of partners based on synergetic complementarity of core competencies (Kocian, 1997). Moreover, through these partnerships, it tries to possess the best-in-the-world competencies for a specific education service (Greiner & Metes, 1996). The identification and selection of partners is based on the identification of universities that can customize their programs to the educational needs of the local market. The model depends on the collaboration with partnering institutions acting as small one-person firms, bringing together their efforts and resources to serve the activities they jointly deliver. These collaborating institutions represent different parts of the world and, irrespective of their geographic location, share the common goal of globalizing a virtual operation through such partnerships (Coates, 1994; Wolff, 1995).

The cooperation between the Institute and its partners could be described as virtual arrangements, with the joint virtual team playing a vital role as one of the core components of virtual organizations (Knoll & Javernpaa, 1998). The basic driving factor behind the collaboration between the partners separated by thousands of miles is the development of a dynamic organizational system that sets the responsibilities for each institution and structures the relationships between them (Rockart & Short, 1991). The collaborative effort between the Institute and any of its partners is totally independent from other degree programs delivered in terms of strategy formulation, management, and operations. Virtual teaming enables people to communicate with each other on a daily basis, creating a work force without physical relocation and irrespective of time and distance differences. The capitalization focused mainly on the emerging communication technologies and tools that facilitate the communications processes.

The virtual team formula enables a flexible and continuously evolving fit between skills, resources, and the growing and changing needs that all partners continuously adjust to show the added-value and the benefits from using this model, as opposed to other models for delivering educational and training contents. Figure 1 illustrates the relationship and collaboration

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