

# Issues of E-Learning in Third World Countries

**Shantha Fernando**

*University of Moratuwa, Sri Lanka*

## INTRODUCTION

Around the world, e-learning is becoming popular, especially among higher education institutes (universities). Many highly ranked universities have either already deployed an e-learning system and are fully operational, or they are in a process of deployment where e-learning-based and non e-learning-based educational environments co-exist. It is also possible to find a few virtual universities. The amount of money and effort that has to be spent on e-learning is high. In addition to the initial e-learning system installation costs, there are ongoing maintenance, management and content development costs. Due to the rapid growth in the field of e-learning and the role it plays in today's education systems, those working in the field have begun to introduce standards for different aspects of e-learning. The Open Knowledge Initiative (OKI) which is described as "a collaboration among leading universities and specification and standards organizations to support innovative learning technology in higher education" is an example (OKI, 2003).

Many highly ranked universities use commercial e-learning systems such as BlackBoard, WebCT, e-college, Netschool, etc. Several open source products are available though their usage is not wide spread, although it is expected that collaborative projects such as Sakai will enable large-scale open source products to be introduced to the market. This effort is described on the Sakai website as, "The University of Michigan, Indiana University, MIT, Stanford, the uPortal Consortium, and the Open Knowledge Initiative (OKI) are joining forces to integrate and synchronize their considerable educational software into a modular, pre-integrated collection of open source tools" (OKI, 2003).

## BACKGROUND

Many third world countries have become "Transitional Countries". The term "transitional country" has been used in different ways in different times and different contexts. However, today's meaning of a "transitional country" is a country that lies between a developed and a developing country, and has an evolving market economy. Dung (2003) states:

*Generally speaking, the expression 'transition' is used,*

*mainly by political scientists, in the context of changes that have followed the fall of regimes, usually when dictatorial regimes have given way to more democratic ones, but this usage has been extended to contexts where previously rigid structures, such as those governing the economy, are giving way to more liberal, market-friendly structures and associated features of liberal democracy.*

Third world or transitional countries require sustainable development. Sustainable development of a country is very much dependent on industry, higher education and research, hence university education is vital. The importance of the higher education is stressed in the United Nations Resolution on the Decade of Education For Sustainable Development January 2005 – December 2014 (UN Report, 2002). For a third world country, as De Rebello (2003) puts it, "The university system was seen as being uniquely equipped to lead the way by their special mission in teaching and training the leaders of tomorrow, their experience in transdisciplinary research and by their fundamental nature as engines of knowledge."

## CURRENT TRENDS IN INFORMATION TECHNOLOGY IN THIRD WORLD COUNTRIES

IT is becoming a driving force of economy. Realizing its potential, many transitional countries have embarked on projects in collaboration with funding agencies to improve IT services, though their IT infrastructure facilities are not adequate. Many foreign investors start IT based companies in transitional countries. The products are aimed at the US or European market, where the parent companies are based. India, in particular, exemplifies this for the IT sector, and many major IT companies have branches in India. In Sri Lanka, due to the limited market, poor infrastructure and slightly higher labor costs, such foreign investments are limited. However, the level of IT expertise is at a competitive level. Many local IT companies carryout sub-contracts for foreign IT companies. A few companies directly interact with the global market. Realizing the potential, the Sri Lankan government em-

barked on “e-Sri Lanka move” project to introduce e-governance and to improve e-services within the country, and formed the ICT Agency using World Bank funds (Development Gateway, 2003). Motivated by these initiatives and realizing the importance of e-learning for today’s form of higher education, some Sri Lankan universities have deployed e-learning systems as pilot projects and a few others have started exploring the possibility of using e-learning for their university education.

Due to the employment opportunities offered for IT professionals of transitional countries by developed countries, many professional IT programs have been initiated in transitional countries. In Sri Lanka, income generated by foreign employment has now become considerable compared to its other income sources such as garment, tea, rubber, minerals, spices, etc. Though most employment opportunities are labor-oriented, many professional opportunities are in the IT sector. However, this causes “brain drain”.

### IMPORTANCE OF E-LEARNING FOR HIGHER EDUCATION IN THIRD WORLD COUNTRIES

In order to understand the importance of e-learning, it is important to consider what we mean by e-learning. According to the definition of NCSA’s e-learning group (Wentling, T.L. et al., 2000):

*E-learning is the acquisition and use of knowledge distributed and facilitated primarily by electronic means. This form of learning currently depends on networks and computers but will likely evolve into systems consisting of a variety of channels (e.g., wireless, satellite), and technologies (e.g., cellular phones, PDA’s) as they are developed and adopted. E-learning can take the form of courses as well as modules and smaller learning objects. E-learning may incorporate synchronous or asynchronous access and may be distributed geographically with varied limits of time.*

In an abstract form, I would define it as “electronically facilitated, enhanced and managed learning”. It can consist of many components or elements of a learning environment of a university system if they can be electronically facilitated, enhanced and managed. Some aspects that could be integrated into an e-learning system to make an impact in a university system, especially in the context of a third world country, are given below.

- Curriculum related aspects – courses and course contents, discussions, library catalogues, etc.

- Academic administration related aspects – registrations, student information, grading, etc.
- Technology infrastructure related aspects – alternative technologies, lab facilities, home use, etc.
- Societal context related aspects – cultural events, forums, activities, etc.
- Industrial collaboration related aspects – industrial expertise and contents, know-how dissemination, guidance to/from industry, etc.

These aspects, when incorporated in an e-learning system, will improve the quality of the higher education, if implemented using strategies and technologies suitable for constrained environments in third world countries. However, deployment of a suitable e-learning system requires a particular educational, administrative and technological environment, and the university educational system will also need to undergo changes. This is where the issues are faced in third world countries. One should not think that the deployment of e-learning is an adaptation to the required educational change. Contrarily, an ability to adapt is a must for the deployment of e-learning.

Bates (2000) states that higher education institutes consider technology-based learning for the following reasons:

- the need to do more with less
- the changing learning needs of society
- the impact of new technologies on teaching and learning (Bates, 2000, p. 8).

Although we observe that mainly the universities in developed countries tend to consider the above reasons, they are applicable to any university. It is in this context that e-learning is becoming attractive. However, when universities in third world countries embark on e-learning-based educational transformations, they face many barriers. In many cases, e-learning cannot be implemented in the way it is done at US or European universities. The approach has to be tailored to the environment, if it is to be a success.

### COMMON ISSUES TO BE ADDRESSED

#### Administrative Issues

Most of the universities in third world countries are traditional universities. Gunn (2000) in his keynote paper states the following:

4 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:  
[www.igi-global.com/chapter/issues-learning-third-world-countries/14499](http://www.igi-global.com/chapter/issues-learning-third-world-countries/14499)

## Related Content

---

### Multi-Objective Big Data View Materialization Using Improved Strength Pareto Evolutionary Algorithm

Akshay Kumar and T. V. Vijay Kumar (2022). *Journal of Information Technology Research* (pp. 1-23).  
[www.irma-international.org/article/multi-objective-big-data-view-materialization-using-improved-strength-pareto-evolutionary-algorithm/299947](http://www.irma-international.org/article/multi-objective-big-data-view-materialization-using-improved-strength-pareto-evolutionary-algorithm/299947)

### New SQL Standard in Database Modeling

Eric Pardede, J. Wenny Rahayu and David Taniar (2005). *Encyclopedia of Information Science and Technology, First Edition* (pp. 2116-2121).  
[www.irma-international.org/chapter/new-sql-standard-database-modeling/14570](http://www.irma-international.org/chapter/new-sql-standard-database-modeling/14570)

### Big Data-Driven Sports Injury Risk Prediction Model and Preventive Training Strategy Management Framework

Lina Chu (2026). *Information Resources Management Journal* (pp. 1-19).  
[www.irma-international.org/article/big-data-driven-sports-injury-risk-prediction-model-and-preventive-training-strategy-management-framework/408714](http://www.irma-international.org/article/big-data-driven-sports-injury-risk-prediction-model-and-preventive-training-strategy-management-framework/408714)

### How Do Institution-Based Trust and Interpersonal Trust Affect Interdepartmental Knowledge Sharing?

Xinwei Yuan, Lorne Olfman and Jingbing Yi (2016). *Information Resources Management Journal* (pp. 15-38).  
[www.irma-international.org/article/how-do-institution-based-trust-and-interpersonal-trust-affect-interdepartmental-knowledge-sharing/143166](http://www.irma-international.org/article/how-do-institution-based-trust-and-interpersonal-trust-affect-interdepartmental-knowledge-sharing/143166)

### Information and Knowledge Perspectives in Systems Engineering and Management for Innovation and Productivity through Enterprise Resource Planning

Stephen V. Stephenson and Andrew P. Sage (2009). *Best Practices and Conceptual Innovations in Information Resources Management: Utilizing Technologies to Enable Global Progressions* (pp. 116-145).  
[www.irma-international.org/chapter/information-knowledge-perspectives-systems-engineering/5515](http://www.irma-international.org/chapter/information-knowledge-perspectives-systems-engineering/5515)