CHALLENGES OF EDUCATIONAL INSTITUTIONS IN LEVERAGING ONLINE CAPABILITIES

Meenakshi Thanji, Dr. S. Vasantha
1,2School of Management Studies,
Vels University, Pallavaram,
Chennai, INDIA

Abstract: This study aims to identify the barriers or challenges faced by educational institutions in terms of leveraging their online capabilities in offering e-learning and other e-services comprehensively referred to as online capabilities. This research contributes to the understanding of perspectives of practitioners, system designers, learners, instructors and management.

From this study we came to know that put in a situation to be an essential part of modern day education, Institutions show a major interest in leveraging their online capabilities despite major challenges. And that the growing need for ICT in education industry is limited by the challenges categorized into perception, Funding and policies and governance related limitations.

Keywords: E-learning, E-services, Online Capability, Information Control Technology (ICT), Challenges

I Introduction

India’s higher education system is the third largest in the world with respect to student enrolment, after China and the United States. Higher education is significant in its relevance that it equips people with specialised skills and that the majority of the population in India is below 25 years of age given its demographic structure. In a technology savvy environment, online capability has become a core part of the modern day educational institution. The potential benefits of e-learning and other e-services in academics have long been extolled by researchers and practitioners. There is a common consensus that educational institutions are in a situation to cater to the need of students, staff and the community around the campus and provide them with an environment with the latest advancements in the way people connect, share and communicate. India’s massive open online courses, started by several elite research universities, collectively enrol the world’s entire student population. Review of previous studies indicates that in many situations individual or organizational contexts determine the extent of online capabilities exhibited by education institutions. In addition to these contexts, government policies and Funding restrictions stand out as major barriers.

Online capabilities of Educational Institutions can be organised into broad service areas such as:

- Teaching and learning
- Video assignments
- Management of lecture capture content
- Digital libraries: e-books, e-libraries, e-journals, research databases etc
- E-services like e-conferences
- Informal learning ways: Blogs, Internet searches, Live chats, Networking with external professionals, Shared repositories, Wikis, Web conferences, Online publications, e-journals etc
- Online surveys, Feedback on course material
- Hosting vast student/staff data
- Public communications
- Recruitment
- Alumni relations
- Live events etc.

II. Objectives

1. To study on current and future state of online capabilities of Educational institutions.
2. To identify and enlist the challenges faced by educational institutions looking out to create, revamp or enhance their online capabilities.

III. Review of Literature

Higher Education in India: Vision 2030, FICCI Higher Education Summit 2013 states that curricula are outdated and institutions face a severe shortage of well-trained quality faculty. While enrolment in higher education has grown six times in the last 30 years, faculty strength has only grown four times. Around 35% of
faculty positions in state universities and 40% in central universities are lying vacant. In 2008, 48% of universities and 69% of colleges did not meet the criterion of minimum investment in physical facilities and infrastructure. There are 13 regulatory bodies in existence to regulate higher education. Each regulatory body functions in isolation. The regulatory provisions of the various Acts are substantially different from each other since they were created at different periods by different ministries. An over regulated system consisting of multiple agencies tends to increase inefficiency and breed corruption and malpractices.

A number of academic Institutions / R&D labs have been financially supported by Department of Information and Technology (DIT) to carry out R&D projects in the field of e-Learning.


E-learning market in India was valued at INR 18.41 in 2010-11 and is expected to grow at a CAGR of 20%. The global market size for eLearning is predicted to grow more than double by 2017 at CAGR of 23%” By mid-2030s physical schools will have been replaced by studios and virtual teaching. These ”Virtual/Physical Studios” rely on technology to provide a hybrid version of education that optimizes the process by, ”Bridging the online-offline gap, offering a potential future where embodiment is secondary to information access”.

![Figure 1: E-learning global market share and forecast 2012-2017](image)

![Figure 2: E-learning 2012-2017 growth (CAGR)](image)

Kenneth C. Green and Ellen Wagner (2011) has mentioned that successful, quality online education requires a major investment of resources to build the infrastructure-including faculty training, instructional services and personnel, and student services.

Srujan Pakala (2013) highlights the attributes for failure of implementation of e-learning in organizations which include poorly designed eLearning courseware, lack of encouragement by the management, absence of dedicated team maintaining the courseware, overestimation or misjudgment of benefits etc.

Panopto, 2014 enlists three common challenges to Lecture Capture. Although most young people today, having grown up with smart phones and social media, are considered “digital natives,” many students have only had limited exposure to university-level learning technologies. And on the flip side, instructors that do not regularly use modern classroom technologies may be wary of learning complicated new digital tools, or introducing time-
consuming new processes into their routines. Some teachers new to lecture capture have expressed concern that recording in-class lectures for students to access on-demand many lead to decreased classroom attendance. Foregoing the perception of instructors, multiple studies have shown that the use of lecture capture does not have an impact on student attendance.

- 86% indicated that recorded lectures had no impact on class attendance
- Another 11% responded that their attendance increased in courses that offered lecture capture

**JISC Project (2012)** discusses on the challenge of e-books in Academic institutions. Problems may arise with some Web-based platforms that depend on using a specific Web browser and users for reasons like not having access to the required Web browser. One other criticism of many of these different platforms is that they can be unnecessarily complex and difficult to use.

**Samuel Lefever’s (2007)** paper on online data collection in academic research concludes that while online surveys can access large and geographically distributed populations and achieve quick returns, online web-based programme for data collection may not be universally appealing owing to various reasons cited. Among them were the unreliability of the email address lists and the lack of willingness, particularly among students, to participate, reaching the population sample remains a problem in online as well as in traditional data collection.

**Karen Becker, Cameron Newton and Sukanlaya Sawang (July 2013)** extend the existing literature in their study by identifying and synthesising existing barriers to e-learning adoption in an organisational setting, and in particular to consider these barriers from the perspective of the learner. The key message from this research is that if organisations planning the implementation of e-learning can address only one issue, it is the issue of the perception of e-learning that should be addressed.

**Jimmy Macharia and Emmanuel Nyakwende** focus on the influence of environmental factors to the adaption and diffusion of the Internet in higher educational institutions in Kenya. The research establishes that competition Pressure, government Support, ICT Vendors support and socio-economic factors positively affect the Internet adoption and diffusion. The results provide some justification for universities to investment in Internet technology to promote adoption and diffusion of ICTs and hence promote Internet use in higher education.

**Barriers enlisted by Karen Becker, Cameron Newton and Sukanlaya Sawang**

**Individual Factors**
- Attitudes to technology
- Capability/ability to use technology
- Social interaction/quality concerns
- Lack of motivation to use
- Lack of academic skills

**Organizational/external factors**
- Lack of user support, administrative support, management support
- Lack of professional development for users
- Availability/accessibility, cost of technology
- Time/workload
- Lack of incentives to use
- Organizational culture/resistance to change
- Problems with technology
- Evaluation/efficacy concern

**Ajit Mondal and Jayanta Mete (2012)** in their study on ICT in higher education state that the introduction of ICTs in the higher education has profound implications for the whole education process especially in dealing with key issues of access, equity, management, efficiency, pedagogy and quality. This paper lists the potential drawbacks-cum-challenges to using ICT in education and concludes ICT enabled education will ultimately lead to the democratization of education.

- It may create a digital divide within class as students who are more familiar with ICT will reap more benefits and learn faster than those who are not as technology savvy.
- It may shift the attention from the primary goal of the learning process to developing ICT skills, which is the secondary goal.
- It can affect the bonding process between the teacher and the student as ICT becomes a communication tool rather than face to face conversation and thus the transactional distance is increased.
- Also since not all teachers are experts with ICT they may be lax in updating the course content online which can slow down the learning among students.
- The potential of plagiarism is high as student can copy information rather than learning and developing their own skills.
- There is a need for training all stakeholders in ICT.
- The cost of hardware and software can be very high.
Rajesh M (2013) enlists the major problems associated with ICT adaptability in developing countries in the context of distance education.

- Policy structure of Government make the implementation of technology a daunting task
- Infrastructural Bottlenecks
- Political, Cultural, Economic factors

IV. Research Methodology

The analysis of this paper is totally depending upon secondary data like journal, books and various websites from internet.

V. Challenges of Institutions to enhance their online capabilities

A wide range of terms and definitions have been offered for learning and other services offered by academic institutions that involves the use of ICT. For the purposes of this research, the term “online capability” has been used exclusively and comprises all “services and experiences of educational institutions delivered or enabled by ICT”.

1. Rapidly evolving technologies in the online world content capture, upload, transcoding, media management, publishing, syndication, playback, security and analytics
2. Unforeseen technical difficulties may impede learning
3. Integrate with the existing tools implemented already
4. Challenge in identifying the right workflow
5. Successful, quality online education requires a major investment of resources to build the infrastructure which includes faculty training, instructional services and personnel, and student services to support those courses and programs.
6. Detrimental progress in structured development of e-learning due to lack of policies (Institutional, National)
7. Ambiguity on ownership of intellectual property of online courses
8. Adherence to intellectual property rights (Patents, copyrights) in use of course contents
9. How do we assess quality? What attributes, metrics, methods, and materials will adequately evaluate the performance and quality? In this context of lack of solid quality assurance mechanism, institutions need to step-up and set higher standards of self-regulation.
10. Internal Barriers such as lack of budget, resources, faculty resistance etc.
11. Lack of awareness, acceptance in education institutions towards exploiting online capabilities
12. Language Barriers
13. State of readiness to deal with electronic, cyber security

India is among the top 10 countries in terms of cybercrimes with the fastest growing Internet user market. Numbers of hackers are three times the security professionals.

14. The main governing body at the tertiary level is the University Grants Commission (India), which enforces its standards, advises the government, and helps coordinate between the centre and the state

There are various offerings available today for online programme management which built around the key capabilities required by educational institutions. For example, Kaltura, the world’s first Open source Vide platform offers video platforms powers video for the world’s largest educational institutions that explores the requirements from institutions and transform expectations in to success.

VI. Conclusion

This report provides comprehensive analysis on the challenges faced by education institutions in India in terms of leveraging their online capabilities. The study covers various aspects such as multi-dimensional capabilities, size of Indian education industry in terms of student enrolment, drivers and challenges of ICT with primary focus on higher education sector. There are plentiful evidences substantiating the low penetration of ICT in Indian education industry, its increasing demand and the supportive government initiatives. Review of literature disclosed ample evidence on the future projections of Indian e-learning market which is included in this report to provide an insight on the prospects of growth of ICT in Indian education industry. Although the literature on e-learning and ICT market in India are enormous, very few studies have been conducted on the extent of application of ICT in higher education in India and thus the challenges faced. From this research paper it can be concluded that although evidently there is a growing need for e-learning and other e-services in education institutions, the challenges impeding the penetrations are quite significant. Further research on application and role of ICT with a great mission of rendering quality education and better education methodology stands warranted.

VII. References


National Policy on ICT in Education; Ministry of HRD , Government of India http://nmeict.ac.in/

National mission on Education through ICT; Ministry of HRD , Government of India http://nmeict.ac.in/


N-List program of Information and Library Network (INFLIBNET) Centre, an Autonomous Inter-University Centre (IUC) of University Grants Commission (UGC) of India http://www.inflibnet.ac.in/

National Programme on Technology Enhanced Learning (NPTEL); Ministry of HRD, Government of India http://nptel.ac.in/

Department of Electronics and Information Technology (DeitY), Ministry of Communications and IT, Government of India http://deity.gov.in


The challenge of ebooks in academic institutions, a JISC Project http://ebookchallenge.org.uk/outputs/

Three Common Challenges to Lecture Capture — And How To Address Them http://panopto.com/blog/three-common-challenges-to-lecture-capture-and-how-to-address-them/


Factors affecting the adoption and diffusion of Internet in higher educational institutions in Kenya,Jimmy Macharia& Emmanuel Nyakwende http://www.ajol.info/index.php/jote/article/view/41754/37128


A Study of the problems associated with ICT adaptability in Developing Countries in the context of Distance Education, 2013, M RAJESH http://tojde.anadolu.edu.tr/tojde10/articles/Rajesh.htm


