INTEGRATION OF ICT TO ASSURE QUALITY HIGHER EDUCATION

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ABSTRACT

We are living in 21st century that is the era of information and knowledge along with the use of technology. Technology that is the result of new innovations created by human being has influenced everything around us, whether it is personal, professional and social life. We can’t imagine our existence without the use of technology in our daily routine. Technology has entered in each and every aspect of human life. Whenever we think of education whether it is formal or informal we have a set pattern of classroom setting and traditional teaching learning process. ICT transforms it in entirely digital environment. Though use of ICT in classroom settings is in initial stage but it is the most versatile and dynamic form of teaching-learning process in present arena because computers, mobiles and internet are in reaches of common people. Use of ICT in learning process makes learning interesting, joyful, effective and permanent. This paper considers concept, initiations, and also discusses applications and challenges in adapting ICT in higher education. Finally the idea summaries with some suggestions and concluding remarks.

KEYWORDS: Information and Communication Technology, Higher Education, Educational policy and planning, Capacity building.

INTRODUCTION

The education systems around the World are under increasing pressure to use new Information & Communication Technology (ICT) to enhance the knowledge and skills of the students. The 1998 UNESCO World Education Report insisted on implementing ICT immediately in Higher Education to pave the way for quality education. To know the role of ICT in Higher Education, we need to know two basic things: ICT & Higher Education

ICT stands for information and Communication Technology comprising three words Information, Communication and Technology.

INFORMATION: Information is resource which has no value until it is extracted, processed and utilized. Information can be defined as data refined into form that is meaningful or valuable to the recipient for drawing conclusions and taking some decisions.
COMMUNICATION: Communication is basically the process of sharing thoughts, ideas, feelings, experiences, information, sentiments etc. with others through some mutually agreeable media that is verbal or non-verbal.

TECHNOLOGY: Technology includes methods and strategies of teaching tools, mechanical and electrical devices and instruments, media equipments, library inventories and even text books.

On the other hand, there is no simple definition of higher education. the international definition of tertiary (post school) Education divides it into two parts. Type A (Higher education) and type B (further Education). A higher education qualification at degree level takes a minimum of three years to complete, more typically four. It will have a theoretical underpinning; it will be at a level, which would qualify someone to work in a professional field. Shortly higher education mainly an generally means University level education. It offers a no. of qualifications ranging from Higher National diplomas & foundation degrees to Honors Degrees & as further step, Post Graduation programmes such as Masters Degree & Doctorates. Here are definitions of most frequently used terms related to Higher Education:

BACHELOR DEGREE: It is usually an U.G. academic degree awarded for a course or major that generally lasts three or four years.

MASTERS: It is an academic degree usually awarded for completion of a P.G. or graduate course of one to three years in duration. In the recent system of Higher Education diploma, it corresponds to a two year graduate programme to be entered after three years of U.G. studies.

DOCTORATE: Traditionally, the award of a doctorate implies recognition of the candidate as an equal by the university faculty under which he or she has studied. It is an academic degree of highest level.

OPPORTUNITIES OF ICT IN HIGHER EDUCATION

Educationists have begun to realize that personal computers, with their convenient parts i.e. LCDs, pointing device with multimedia capabilities and ability to link with note books & laptops of others have evolved into personal media which can facilitate effective learning environments.

Side by side universities and institutes of higher education have a mission to make teaching-learning process effective and interesting. Study of use of ICT in Higher Education reveals the following opportunities.

A. Extended Interaction: The integration of ICT can have beneficial implications on extended interaction between Teacher & student, opening up new opportunities in educational methods. It caters not only teacher-learner interaction but to learner-learner & teacher-teacher interaction as well.

B. 24×7 Availability: ICT is the student-centered learning technology available at 24×7×365.
C. Improved Teaching-Learning Process: The conventional way of teaching-learning process can be made more effective & interesting by using ICT. For eg. when a teacher uses multimedia in his lecturer, the whole class becomes more attentive and lecture becomes more interesting & which automatically helps in maximum understanding.

D. Vast Variety of Study Material: Traditional system provides limited knowledge through text books/printed material only. But ICT facilitates us to get a variety of study material using Internet any time anywhere.

E. Support to Admission & Examination System: Using ICT universities can improve admission process by downloading all information, forms on their websites. They can conduct entrance/semester/annual exam. online. This will provide a great support to admission & Examination system.

F. Useful in Research Activities: Research can get information about recent developments in different fields, collect variety of information on a particular topic and with the help of new & innovative ideas can obtain new findings.

G. Professional Developments of Teachers: ICT provides opportunities to access a wide range of resources that helps in many ways in professional developments of teachers.

INITIATIVE TAKEN BY GOVERNMENT

- ICT has an ability to transcend the barrier of time and space (Rao, 2010). There has been a dramatic shift from the 1980s to the present day in terms of access to technology by the population in general (Reddy & Sinha, 2009). Rout and Singh (2010) discussed major initiations taken for ICT access as follows:

- Computer literacy & studies (CLASS) project had initiated in 1984 for senior secondary students. It was an awareness programme but failed due to technological compatibility.

- In 1994, Government of India also introduced Computer Aided learning Programme under District Primary Education Programme (DPEP) in 1994.

- In 2002, the Government of India launched a project called Vidya Vahini to provide for IT and IT-enabled education in 60,000 schools in India over three years (India has about 1.1 million schools), as part of Rs. 6,000 crore (USD 1.2 Billion) project (Kumar A., Oct 9, 2002).

- Edusat as India’s first dedicated educational satellite was launched in September 2004, with footprints covering the entire country, Edusat makes it possible to receive direct to home quality broadcasts of educational programme using any television set and a low cost receiver.

- National Mission of Education through ICT (NMEIT): HRD Minister Arjun Singh launched NMEIT at Sri Venkateswara University. The main aim is to address the goal of...
access, equity and quality in Higher Education. And attempt to bridge the digital divide between rural & urban as well as in rich & poor strata of society. Rs. 4612 crore is allotted for this project.

- National Programme on Technology Enhanced Learning (NPTEL): Launched in Sept., 2006 and funded by MHRD to pave the way between multimedia & web technology to enhance learning of basic science and concepts.

KEY CHALLENGES IN INTEGRATING ICT IN HIGHER EDUCATION

While considering the opportunities associated with the ICT-integrated education, we also let to know the second side of coin i.e. Challenges faced by policy makers and educators while implementation of ICT in Higher Education. Some of the key challenges related to different aspects of education are discussed below:

A. CHALLENGES RELATED TO THE EDUCATIONAL POLICY & PLANNING

- The total approach of integrating ICT at higher level is not serious.
- There is lack of clear and specific objectives, guidelines and time bound targets which are helpful in advancement of education.
- Technology, pedagogy & Content integration is not there. All are taught separately creating confusion among students.

B. INFRASTRUCTURE RELATED CHALLENGES

- Non-availability of appropriate rooms or buildings to house the technology.
- Non-reliable supply of electricity & telephonic facilities in developing countries.
- Access to computers in universities, communities as well as affordable Internet services.

C. CHALLENGES RELATED TO CAPACITY BUILDING

- Lack of competent & professional teachers.
- Change in role of teacher and integration of ICT in existing curricula.
- Confusion among teachers’ community to understand why they should use ICT & how exactly they can use ICT to help them teach better.
- Lack of support from Educational Administrators.
D. CHALLENGES RELATED TO LANGUAGE & CONTENT

- Dominance of English language on internet, which is not so proficient in developing countries.
- Lack of ICT material in countries like Singapore, Malaysia & India in local language.

E. CHALLENGES RELATED TO FINANCE

- Difficulty of balancing educational goals with economic realities.
- ICTs in education require large capital investments & developing countries need to be prudent in making decisions about use of economical model of ICT.

SUGGESTIONS

Here are some practical suggestions by following which the path of ICT in Higher Education can be illuminated.

- In the light of far-reaching potential impact of the new ICT technologies on learning experience, the Government of India should develop a charter for E-learning in Indian context.
- There is a need of collaboration among institutions at state, national & International level: Universities, Colleges & schools should establish an integrated strategic planning process.
- Problem of funds can be removed by using following measures:
  - Grants
  - Public subsidies
  - Community Support (e.g. rent free buildings)
  - Membership fees
  - Revenues earned from business like connectivity, direct computer access to users.
- Additional resources to facilitate research & experimentation in E-learning should be continuously made available.
- It is suggested that the institutions relieve the teachers of some of their duties so that they will have more time to devote to E-content development.
Teachers should be empowered with easy access to wide range of instructional designs & technical support tools.

Two fold strategy: Government support and local community mobilization can be the key to integrate ICT in Higher Education System.

CONCLUDING REMARKS

Information & Communication technology is an important instrument that can transfer the present isolated, teacher-centered & Book-centered environment into student-centered, thought-provoking and healthy environment. There are infinite opportunities of integrating ICT into Higher Education. ICT has rendered convenience of online learning to thousands of people throughout the World who cannot avail the benefits of higher education due to some barriers like poor socio-economic condition, time, geographical location, age etc. Now teaching community is able to reach in remote areas to teach the ignorant community of students. It is important that serious planning & implementation should be done at both higher & grass root level to ensure quality education for 21st century learners.

REFERENCES


Pelrum, W., Obstacles to the integration of ICT in education: results from world

Wide educational Assessment Computers & Education.


Sansanwal D.N., Information Technology & Higher Education: Employment


http://www.dqindia.ciol.com

http://www.google.co.in

http://en.wikipedia.org/wiki/Higher_Education