eEmpowerment of Educators for- Delivery of Curriculum of Higher Education through ICT

Supriya santosh Wagh  
Asst. Professor. Sinhgad Institute of business Administration & Computer Application, Lonavala  
swagh.sibaca@sinhgad.edu and priya_sd30@rediffmail.com

ABSTRACT
The purpose of this paper is to promote integration of Information and Communication technologies (ICT) in higher education for Evaluation of Design and Delivery of Curriculum leading eEmpowerment of Educators. The integrating emerging ICT into courses may provide new methods for teaching course content and designing educational experiences. It may also improve learning, provide ways of affirming diversity, and facilitate problem solving and creativity.

Basic activities related to integrating ICT into education consist of development of systems, methods and learning materials through the use of ICT. This is expected to develop a higher education information network, infrastructure and human resource to support its implementation, both for education management and the learning process. By using ICT for educating students in higher education institutions equity of quality can be assured.

Abreast

KEYWORDS
ICT (Information and Communication Technology), Educational Services, Educational Experiences, Teaching learning process, Higher education information network, eEmpowerment, Educator.

1.INTRODUCTION
In today’s competitive educational environment, emerging ICT are required to provide competitive educational services to an increasingly demanding student body & ICT takes a vital role in eEmpowerment of educators. There is clearly visible & directly relevant connection between teaching learning process & the use of ICT tool in that to make superior the educator in evaluation of Design and Delivery of Curriculum. The main motive behind taking this topic is to give the information about the use of different ICT tools in the teaching process which helps the educator to improve the quality of teaching.

2.BACKGROUND
Traditional teaching process is Fase-to-Fase teaching in the class room with use of Black board & books. Traditional Edution system focus on Memorization of discrete facts.

A traditional classroom is curriculum driven. In a traditional classroom, all students are assessed on a common task. A traditional classroom prepares students more for tests than for life and teachers are more loyal to the curriculum than to students’ learning.

Higher Education system faces two major problems - one being the continuous evolvement of the different discipline bodies, and, secondly, the issue of appropriate employment of educators. Instructors and educators need to periodically reinvent and restructure their curriculum to keep their learners abreast. An effective approach is to structure the curriculum by defining the requisite competencies as the instructional goals and subsequently defining the conceptual requirements to achieve these goals. When the outcomes of learning are clearly specified, activities must be designed and assessments logically done to confirm to what degree the required learning has been achieved.

Traditional curricula and emerging educational technology can be integrated successfully, as long as courses are developed with classic educational pedagogy in mind, and the pedagogy drives the choice of technology.

3.WHAT IS ICT
ICT includes the computing industry (hardware, software, networks, the Internet, and related services); electronic data processing and display (such as photocopiers, cash registers, calculators, and scanners, as well as a myriad of less well-known machines specifically tailored to production and manufacturing); telecommunications and related services (such as fixed and cellular telephones, facsimile machines, instant messaging, teleconferencing, and so on.); and audiovisual equipment and services (including television, radio, video, DVDs, digital cameras, compact discs, MP3 players, etc.)
The integration of ICT in education is in line with the Dakar Framework for Action on Education for All, which states that ICT in the 21st century offers new ways of managing the education process as well as delivering particular programmes. Such technologies can also help to deliver learning programmes. Integrating technology with teaching implies the use of teaching technologies to introduce, reinforce, supplement and extend skills. The difference between the classroom of ideal users of technology and technology users is in the way their classes are conducted. In the ideal classrooms, student use of computers is into the patterns of teaching-learning process. In the case of integrating ICT in education, various technologies have been used like:

- Audio (cassette, radio broadcast, telephone, voice mail telephone),
- Video and television (TV broadcast, VCD, fiber optics, video tape, video text, video messaging),
- Computer and internet or web-base (fiber optics, computer, CD-ROM, Computer Assisted Instruction, Computer Based-Learning, Computer Based Technology),
- Web-based via internet (chatting, bulletin board, e-mail, internet, on-line learning), and
- Combination of audio, video, computer and web-based technologies).

The use of Web-based teaching technologies has increased dramatically over the past decade providing new opportunities and avenues for educators to deliver course virtually using computer-mediated communication (CMC) technologies. Examples for such emerging educational technology include:

- a) Tools to generate course materials;
- b) Planning and organizational tools for concept mapping and lesson planning;
- c) Electronic research and reference tools;
- d) Tools to support specific content areas; as well as
- e) Tools to record class lectures and notes, and others

ICT can be used as a tool in the process of education in the following ways:

- **Informative tool**: It provides vast amount of data in various formats such as audio, video, documents.
- **Situating tool**: It creates situations, which the student experiences in real life. Thus, simulation and virtual reality is possible.
- **Constructive tool**: To manipulate the data and generate analysis.
- **Communicative tool**: It can be used to remove communication barriers such as that of space and time.

The following mediums are used for the delivery and for conducting the education process:

- **Voice** – Instructional audio tools that include interactive technologies as well as the passive ones.
- **Video** - Instructional video tools that include still images, prerecorded moving images, and real-time moving images combined with audio conferencing.
- **Print** – instructional print formats that include textbooks, study guides, workbooks and case studies. ICTs also allow for the creation of digital resources like digital libraries where the students, teachers and professionals can access research material and course material from any place at any time. Such facilities allow the networking of academics and researchers and hence sharing of scholarly material. This avoids duplication of work.

India is making use of powerful combination of ICTs such as open source software, satellite technology, local language interfaces, easy to use human-computer interfaces, digital libraries, etc. with a long-term plan to reach the remotest of the villages. Community service centers have been started to promote e-learning throughout the.

The introduction of ICT in the teaching learning practice of higher education system would change the role of teachers. With ICT, teachers can no longer be “the transmitters of knowledge” but rather “the facilitators” of the learning process.

**5. SOURCE OF ICT FOR EDUCATORS**

[1] Project ekalavya was initiated in 2004 to generate an interactive platform for the creation, absorption, dissemination and usage of knowledge in the Open Source. One of the offshoots of this initiative was the conception of the eOUTREACH programme. This programme creates high quality digital contents in several formats. These are DVDs, VCDs, HTML, text and power point slides, audio and streaming videos and audio. These digital contents are of specialised workshops, courses, lectures, nutshell series of lectures and seminars of educational value. The ekalavya portal aims at a free exchange of knowledge and ideas, all the relevant academic material is placed in the Open Source, thus making considerable contribution to society. The eOUTREACH programme of Project ekalavya has been funded and supported by the Technology Information Forecasting & Assessment Council(TIFAC).

The portal http://ekalavya.it.iitb.ac.in/

[2] **Mission10X**, a not for profit trust, created by Wipro Limited was launched on Teachers Day 5th September 2007. It was initiated with the aim of enhancing the employability skills of the engineering graduates across India. Mission10X is important step in this direction which can enhance the employability landscape of graduating Engineers. With the support from the top management of the company and academia’s active enrolment, Mission10X is well on its way to empower 10,000 faculty by 2010.

[3] **Maharashtra Knowledge Corporation Limited (MKCL)** was promoted by the Department of Higher and Technical Education, Government of Maharashtra, India and was incorporated under the Companies Act, 1956 on August 20,
eEmpowerment of Educators for- Delivery of Curriculum of Higher Education through ICT

2001 as a Public Limited Company under CIN. U 80302 MH 2001 PLC 133101 to create new paradigm in education and development through universalization and integration of Information Technology in teaching, learning and educational management processes in particular and socio-economic transformative processes in general. MKCL runs several community development and eEmpowerment programs with a view to bridge the digital divide or knowledge divide and propagate the culture conducive to nurturance of knowledge society among the masses. These programs intend to imbibe a culture of life long learning amongst communities Network of 5000 Authorized Learning Centers in the state well equipped with more than 40,000 computers with state-of-the-art hardware, software and internet connectivity

6. BENEFITS OF ICT TO EDUCATOR IN HIGHER EDUCATION
• Increased access,
• Flexibility of content and delivery,
• Combination of work and education,
• Higher quality of education and new ways of interaction.
• High quality, cost effective professional development in the workplace,
• Upgrading of employee skills, increased productivity,
• Development of a new learning culture,
• Sharing of costs and of training time with the employees,
• Increased portability of training.

The flexibility of ICT-based approaches was highly valued because it enabled students to work at their own pace, in their own time and chosen location. Teachers seriously committed to using ICT considered that this had a beneficial impact on their teaching. The most often cited improvement was in the level and quality of preparation: materials could be easily updated and revised to suit the needs of different student groups.

Lecture notes were posted on the intranet in advance, the staff judged that it gave students freedom to concentrate on important concepts or issues within the content. The evidence suggested that this did not reduce student attendance at lectures, but allowed them to come better prepared and to be more engaged.

7. KEY FACTORS FOR THE SUCCESSFUL IMPLEMENTATION OF AN ICT STRATEGY IN HIGHER EDUCATION:
A number of factors are significant in the successful implementation of an ICT strategy:
• The appointment of key staff to act as Instructor of the ICT tool. These staff appeared to have been particularly effective at Faculty
• The choice of platform/ICT tools was crucial to success
• The existence of a supportive and responsive technical and/or teaching and learning unit, able to respond to the needs of individual staff in uploading their materials on to the system.
• Institutes/education system, responsible for budgets and for release of staff time. For staff, the major concern was time for development and updating of ICT-based materials.
• Computer provision appeared generally to be at least adequate. The rate of computer ownership amongst students was high.
• The integration of ICT into learning and teaching also raised the question of the incentive for staff to engage in such developments.

8. POTENTIAL DRAWBACKS OF USING ICT IN HIGHER EDUCATION
Although ICT offers a whole lot of benefits there are some risks of using ICT in Evaluation of Design and Delivery of Curriculum of Higher Education which have to be mitigated through proper mechanisms. They are:

1. 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.
2. It may shift the attention from the primary goal of the learning process to developing ICT skills, which is the secondary goal.
3. 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.
4. Also since not all teachers are experts with ICT they may be careless in updating the course content online which can slow down the learning among students.
5. The potential of illegal use is high as student can copy information rather than learning and developing their own skills.
6. There is a need for training all educators in ICT.
7. The cost of hardware and software can be very high.

SUMMARY AND CONCLUSIONS
ICT-in higher education is known to empower individuals, to enhance learning and teaching processes, to help individuals share and disseminate accumulated knowledge and best practices, information, experiences, and products and services, and to promote productivity. ICT can affect the delivery of education and enable wider access to the same. In addition, it will increase flexibility so that learners can access the education regardless of time and geographical barriers. It can influence the way students are taught and how they learn. It would enable development of collaborative skills as well as knowledge creation skills. This in turn would better prepare the learners for lifelong learning as well as to join the industry. It can improve the
quality of teaching and thus contribute to the economy & empower the teacher’s skill.

Use of ICT in higher education requires new kinds of skills, attitudes and capabilities in educator. There exist some risks and drawbacks with introducing ICT in education which have to be mitigate.

REFERENCES


[5] “Why Technology in the University Classroom is Necessary” by Daniel A Peak in Journal of Information Technology Case and Application Research; Volume 11, No. 1, 2009;


Websites Accessed:
[1] http://education.nic.in
[3] http://ekalavya.it.iitb.ac.in