

Higher Education and Emerging Technologies: Rethinking The Learning Experience

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ABSTRACT

At various levels, we continue to reap the benefits of what was sown in Higher education 50 years ago by the founding fathers of our republic, however, we would all undisputedly agree that there is a quiet crisis in higher education in India, a crisis that runs deep. A crisis that cannot be offset by the pockets of Educational excellence sporadically present in the country, or just by the presence of an enormous reservoir of talented young people in the economy or by the intense competition among existing colleges and universities. Higher education in India suffers intensely in terms of quality and the intelligent use of Information Technology could be a means to achieve an end. Technology, if constructed coherently and meticulously would help the purpose of Quality in Higher Education. Implementing IT solutions in an Educational Institution if, not executed as a standalone project or a scheme but undertaken as a long term commitment would serve the purpose of improving the quality of Higher Education in India.

1. HIGHER EDUCATION IN INDIA

The progress of any society and the people in it, heavily depends on Education. Special!y, for a country like ours, which is a late - comer to development it is all the more important to emphasize on education to get in pace with the 21st century world. In the quest for development, primary education, which forms the base, is absolutely essential however; higher education undoubtedly provides the cutting edge. Higher Education has made a significant contribution to economic development, social progress and political democracy in independent India. It has and will always remain a source of dynamism for the economy. Economic and Social opportunities to people have been made available through this higher education. Above all this, the single most important contribution of Higher Education to a country like ours, is that, it has triggered the creation of a knowledge society. If India is to make this transition to a Knowledge economy, it is important that the quality of higher education in India is dramatically improved.

The Indian Educational system needs a systematic overhaul; it needs to educate much larger numbers without diluting academic standards. This is imperative because the transformation of economy and society in the 21st century would depend in significant part, on the spread and the quality of education among our people particularly in the sphere of higher education. It is only an inclusive society that can provide the foundations for a knowledge society.

2. INFORMATION TECHNOLOGY AND QUALITY IN HIGHER EDUCATION

Information Technology is rapidly changing the terrain of education today. It is rapidly changing the way we learn and teach. Students have been transformed into digital natives by this revolution. It is imperative that classrooms be converted into tech hubs that use gadgets and technologies that aid learning. The emergence of social networking sites, smartphones, digital readers and digital books could help classrooms become more interactive and smarter. A classroom today transcends all conventional boundaries and leaps into the unknown future of Information technology in higher education.

3. HIGHER EDUCATION AND INFORMATION TECHNOLOGY: POSSIBILITIES

a) Hybrid Learning and Flipped Classrooms

This is a form of blended learning. It involves students viewing video lectures online, mostly at home, and then time in class is devoted to more interactions and specific discussions pertaining to assignments and focusing on problem solving. This technology, urges students to be more receptive in class and participate in a meaningful way.

b) Lessons on Demand

This technology is all set to turn individual electronic devices into virtual classrooms anytime. Lessons are videotaped and published by universities and colleges and are generally freely available to anyone with access to internet. This technology gives the flexibility of time and place to the user.

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c) E-Assessments and Online Exams

Online exams and e-assessments are becoming popular in tests based on multiple-choice questions. Technologies that help assess essay-type questions are still evolving. E-assessments remain attractive to students today as they give immediate feedback and provide unbiased, near perfect marking. This form of assessment will be a boon in entrance exams, as the physical presence of the exam taker would no longer be a prerequisite.

d) Interactive Boards and Visual Presenters

This is a technology invented for the teacher to successfully engage the students effectively through visual treats. Long lectures could be replaced using this technology with visual aids that lend freshness to learning.

e) Cloud based Tools

Use of cloud based tools like Google apps, icloud, YouTube and the likes could create a difference. Notes, books, discussion points can now be stored onto Google drives or Google docs and be shared within a class. Anyone can add or make points and the lecturer stays virtually connected to students all the time. Icloud since not restricted to one device creates universal access.

f) Tablets and Smart Phones

With the advantage of easy portability, these devices are inevitable in using cloud based tools. These devices can also be easily hooked on to Projectors and students can use them creatively to make presentations and assignments.

g) Social Networking

As conventional as we are in accepting that Social networking would help education, we are also aware that several universities are on face book and twitter. Lecturers, deans and principals are taking to social media to form a personal connect with the students. Social networking could effectively be converted for achieving Educational goals.

h) Digital Books

Digital books have a huge potential as storing them and browsing through them is so much easier. These digital books could replace the aura of reading a physical book for the current generation.

i) Massive Open Online Courses (MOOCs):

These courses can be taken anywhere and are mostly free. Learners can take courses from universities of their choice. Some universities not only offer lectures and videos but also allow for students to learn by grading each other.

j) Dial Access

Dial access belongs to audio technology which uses educational telephone network (ETN). Dial access is a round the clock delivery system through which callers obtain access to a vast library of audio cassettes.

Though this system was first developed for continuing medical education in USA, it was available for courses of continuing or non-credit education with considerable emphasis on professionals. It may be said that this technology was made impractical with the advent of small easy to use audio and video tape players.

k) Video

Video, especially non-broadcast video is one of the most successful medium used extensively in education and training. It is more popular than lectures. Specific programmes such as teaching skills, demonstrating and illustrating ideas are developed for video tape and used at all levels of education. This technology allows playback of generic programmes and local production. Low cost commercially produced video tapes are available to train, remediate and supplement regular programming and professional resources from the reputed experts could be brought directly to the learners with the help of this portable medium.

l) E-mail

Electronic mail is popularly known as E-Mail. It is a generic name for non-interactive communication of text, data image or voice messages between a sender and a designated recipient by system using telecommunication links. E-Mail messages are from machine to machine. A message originating from the sender's machine is addressed to one or more recipients who receives it on his machine at any remote area at the global level.

m) Artificial Intelligence (AI)

Artificial intelligence (AI) is the study of how to make computers do things at which, at the moment, people are better. The best computerized learning programmes already include certain forms of artificial intelligence that can diagnose the student's learning deficiencies and tailor instruction to remedy them. AI is a computational technology that involves the symbolic representation and processing of knowledge.

n) Digital Video Interactive (DVI)

Digital Video Interactive (DM) is a technology that combines best attributes of Video and CD-ROM into one medium and three-dimensional holography. This device is further advancing our present capabilities. The educators are amazed to see the new technological converging at such a fast rate that it is not possible for them to distinguish which component is really peripheral to the other.

4. CONCLUSION

Although education is involved with a number of technological improvements, it takes very long time for all the educators to gain mastery in their applications. There must be a provision of allocating some budget for purchasing and maintaining a few instructional media which are absolutely necessary in every educational institution. There is no convincing reason to believe that computers will isolate students or dehumanize the learning process because the teacher is the master for the student and the machine. He should encourage the technology that would help to make teaching-learning process a thorough success. For this, he should not only provide the best instructional tools but also use them to the best advantage of the students. Further he should design instructional management system that would welcome teachers as important partners. Each technology has its advantages and limitations and no one technology is useful for all types of learning. While selecting the media, the criteria to be kept in mind are availability, accessibility, acceptability, economics and validity of the media. So educational technology will help him in improving teaching-learning process.

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