ABSTRACT

Higher Education refers to education in post higher secondary institutions colleges and universities. It is called 'higher' because it constitutes the top most stage of formal education and it is concerned with processes in more advanced phases of human learning. The higher education experience has brought about a greater feeling of independence, self-discipline and growing confidence. For most, it is about realizing one's full potential.

Higher education is at a crossroads - one path continuing an essentially administrative approach to the management of learning, and a second, promising meaningful...

The purpose of this paper is to outline some of the future drivers behind learning technology in order to understand what may be coming next. Three kinds of courseware can be identified in advanced learning technology (ALT).

Keywords: Higher Education, Technology and higher education

INTRODUCTION

According to Swamy Vivekananda, "we want that education by which character is formed, strength of mind is increased, intellect is expanded and by which one can stand on one's own feet. "Higher Education" refers to education in post higher secondary institutions colleges and universities. It is called 'higher' because it constitutes the top most stage of formal education and it is concerned with processes in more advanced phases of human learning. The higher education experience has brought about a greater feeling of independence, self-discipline and growing confidence. For most, it is about realizing one's full potential.

Technology in education and technology of education are two different concepts which deal with the use of technological tools and innovative educational strategies respectively. Information Technology in Education, effects of the continuing developments in information technology (IT) on education.

The pace of change brought about by new technologies has had a significant effect on the way people live, work, and play worldwide. New and emerging technologies challenge the traditional process of teaching and learning, and the way education is managed. Information technology, while an important area of study in its own right, is having a major impact across all curriculum areas. Easy worldwide communication provides instant access to a vast array of data, challenging assimilation and assessment skills. Rapid communication, plus increased access to IT in the home, at work, and in educational establishments, could mean that learning becomes a truly lifelong activity—an activity in which the pace of technological change forces constant evaluation of the learning process itself.

The purpose of this paper is to outline some of the future drivers behind learning technology in order to understand what may be coming next. Three kinds of courseware can be identified in advanced learning technology (ALT) for education
We have to transform our huge human resources into an asset. For this we have to evolve an effective strategy to raise the knowledge skills of our people across the board. The most important prerequisite here is an emphasis on quality education. Our country is well known for the quality of mind and is recognized as a potential knowledge hub of the world.

**Education**

Education is essentially about rational enquiry and for a highly pluralistic society. It has to be developed as a harmonizing force rather than an instrument to promote divisiveness and disunity among the people. A progressive and forward looking education will greatly address our major social evils and will help in strengthening the secular and liberal fabric of our country, remaining sensitive to the specific cultural identifier, plural nature of our society, the democratic ethos of our people and to the need for positive dialogue between cultures.

Higher Education refers to education in post higher secondary institutions colleges and universities. It is called 'higher' because it constitutes the top most stage of formal education and it is concerned with processes in more advanced phases of human learning.

As far as the Higher Education is concerned, the board must create a mechanism to effectively monitor the four pillars of Higher Education viz. teaching, learning, research and extension of findings in service of mankind.

**Technology**

Technology is changing the way faculty teaches and students learn. As technological advances are introduced into the academy, campuses are more and more attracted by the promise and potential of technology for enhancing access and learning. Faculty, staff and administrators need to understand what technology can and what it cannot do. Technology is seen by some as the panacea for budgets cute: some see visions of hundreds of students sitting in front of monitors, e providing cheap, mass education. Others see technology as a critical educational experience, opening more opportunities for the learner been compassed by one campus. Both visions are possible, but the first not particularly desirable.

**Perception of IT in higher education**

As IT has become an essential, expected element of the university, it risks being perceived purely as an operational unit. This perception — often shaped by IT's role in the development, provision, and support of hardware and software — can erect a significant barrier to the IT leader's moving toward a role as a strategic partner. The way the IT leader is perceived and the role the leader plays fall on a continuum, of course, and your position along this scale will vary depending on your institution's development and needs. Nevertheless, underlying technological shifts in personal, professional, and academic life provide a variety of opportunities for IT leaders to reshape the image of IT and their own role within the institution.

**Need and importance of information technology in education**

**Need**

Education is a life-long process therefore anytime anywhere access to it is the need. Information explosion is an ever increasing phenomena therefore there is need to get access to this information. Education should meet the needs of variety of learners and therefore IT is important in meeting these needs. It is a requirement of the society that the individuals should possess technological literacy. We need to increase access and bring down the cost of education to meet the challenges of illiteracy and poverty-IT is the answer.

**Importance**

Access to variety of learning resources immediacy to information anytime learning anywhere learning collaborative learning multimedia approach to education authentic and up to date information access to
online libraries teaching of different subjects made interesting educational data storage distance education access to the source of information multiple communication channels-e-mail, chat, forum, blogs .etc. access to open courseware better accesses to children with disabilities reduces time on many routine tasks

In the era of technology. IT aids plenty of resources to enhance the teaching skills and learning ability. With the help of IT now it is easy to provide audio visual education. The learning resources are being widens and widen. Now with this vivid and vast technique as part of the IT curriculum, learners are encouraged to regard computers as tools to be used in all aspects of their studies. In particular, they need to make use of the new multimedia technologies to communicate ideas, describe projects, and order information in their work.

Academic Technology and the Future of Higher Education

Technology time-lags provide an opportunity to explore how academic technology policy will impact higher education in the next millennium.

Micro-information technologies are proving to be powerful forces in shaping the destiny of higher education, technology-mediated learning constitutes a new way of teaching and learning.

This article is about exploring how some new strategic paths in higher education may avoid the(1) far more valuable and contemporary ways of learning are disregarded; (2) important student needs are not being met; and (3) colleges and universities fail to make changes that will enhance their value and well-being.

Role of Technology in supporting and enhancing assessment

Technology is an obvious partner because whether it's on a CD-ROM, floppies, or an old-fashioned technology like video cameras or even overheads, the student is bringing together visual, three-dimensional, and paper-and-pencil work. We want to be able to document and have a trace of what the student has accomplished and how the student got there.

Immediacy to information

IT has provided immediacy to education. Now in the year of computers and web networks the pace of imparting knowledge is very fast and one can be educated anywhere at any time. New IT has often been introduced into well-established patterns of working and living without radically altering them. For example, the traditional office, with secretaries working at keyboards and notes being written on paper and manually exchanged, has remained remarkably stable, even if personal computers have replaced typewriters.

Any time learning

Now in the year of computers and web networks the pace of imparting knowledge is very fast and one can be educated. One can study whenever he wills irrespective of whether it is day or night and irrespective of being in India or in US because of the boom in IT.

Collaborative learning

Now IT has made it easy to study as well as teach in groups or in clusters. With online we can be unite together to do the desired task. Efficient postal systems, the telephone (fixed and mobile), and various recording and playback systems based on computer technology all have a part to play in educational broadcasting in the new millennium. The Internet and its Web sites are now familiar to many children in developed countries and among educational elites elsewhere, but it remains of little significance to very many more, who lack the most basic

Changing role of IT

The changing role of IT in higher education has been well documented. Information technology serves as the foundation for the business of the institution, supports new advances and approaches to teaching
and learning and provides new capabilities in research. IT is so much the fabric of the university that its presence is often not fully recognised.

In addition to an expanded presence, though, the focus in the IT organisation has shifted from a tactical to a strategic perspective, one that emphasizes the information rather than the technology part of IT. With the demand for IT only growing, understanding how IT leaders can best lead in these efforts is essential.

**Advanced learning technologies**

Today, technology can be seen in almost every aspect of higher education, whether it is student services and human resources software, course management systems for on-site and distance courses, the increase in communication with students via e-mail, laptops in classrooms, hybrid classes, faculty in one state teaching for institutions in another via distance, or faster and greater access to research materials via the Internet.

- New technology makes sense educationally, truly advancing student learning and scholarship;
- Investments in technology make sense financially in a realistic cost/benefit analysis;
- Students and faculty have full access to new technology and related training; and,
- Faculty and staff rights, including their intellectual property rights, are protected.

The three stages identified in the learning framework, provide a framework for the evaluation of courseware developed using advanced learning technology (ALT) for education. Three kinds of courseware can be identified:

- Primary courseware (conceptualisation) will support the presentation of content.
- Secondary courseware (construction) will provide resources for the doing of learning tasks.
- Tertiary courseware (dialogue) will support dialogue through communication.

**Primary courseware**

Primary courseware is courseware produced professionally, authored by subject matter experts but usually designed and programmed by specialists. It involves the presentation of what is termed the 'primary exposition'.

Much recent literature has discussed the suitability of hypermedia for exploration, whether a rich set of interconnections will allow opportunity for learning by browsing. Initial enthusiasm for this paradigm has given way to a realization that free exploration is inefficient and needs to be supplemented by guidance.

**Secondary courseware**

Secondary courseware is constructed by teachers for their own courses, or is tailored from primary sources. The same tools can also be used by the learners to create their own courseware.

Here productivity tools can be used far more effectively if put in the hands of the learners to create their own material rather than for teachers to deliver material. It is the process of collecting, organising and explaining the material for other people which facilitates learning rather than reading the results of other people's learning activities. These tools range from word processors, graphics packages, authoring packages, expert system shells and video conferencing.

**Tertiary courseware**

Tertiary courseware provides the best current opportunity for adding effective support to learning. It is center around communications and uses technology to provide opportunities for discussion and reflection. With the use of asynchronous communication tools such as computer conferencing and
email neither time nor location are important. Moreover, a technology such as the Internet allows the appropriate participants to locate one another in the first place.

Assessing the role of technology

Historical perspective

Since the emergence of the Internet as a mainstream technology, there have been extreme views about the role of technology in learning. One extreme view is that technology can have absolutely nothing to do with learning - it is just a tool. The other end of the spectrum is that technology is a panacea that will enable creation of "learning objects" that will revolutionize how education is delivered and received. There are three elements of learning technology that have become mainstream in this time frame:

- First, classrooms and campuses have continued to incorporate more and more technical infrastructure in terms of networks, Internet connections, smart boards, etc.
- Second, course management systems (CMSs) have been widely adopted at an institutional level providing, for the most part, an online communications hub for posting of class materials, syllabi, etc.
- Third, for those institutions, or operating divisions within institutions that have a mission of outreach, there has been a rapidly growing number of online courses and programs that are taking the place of, but better than, older alternatives for distance learning.

Of course, many ideas and predictions have not become mainstream realities. Among these are:

- Students did not rush to consume new forms of online digital content for studying.
- Institutions did not jump on the bandwagon to allow commercial benefits (either to themselves or third party vendors) from student portals.
- The very large majority of faculty has not opted to become "course developers" and develop online courses using the CMS.
- Use of digital content and third-party digital courses by faculty has remained in a small minority.
- Portals attempting to aggregate courses from multiple institutions have mostly failed with a few limited exceptions.
- High production value courses, sometimes featuring leading authorities or fancy problem-based, interactive learning approaches, have seen several dramatic flops with only a few limited successes in niche areas, such as remedial math.

While use of PowerPoint, and in some cases the Internet, has become mainstream, in general faculty doesn't feel that all the technology in the smart classrooms has significantly improved the teaching or the learning.

Video conferencing

When the role of a technology within learning is assessed, there are two separate criteria to consider, those or effectiveness and efficiency. Effectiveness refers to the opportunity the technology offers to improve on what is obtainable with traditional methods. Video conferencing is particularly promising for the support of dialogue.

Video conferencing was not designed as a method for educating the masses. It is an intimate method of communication on an individual or small group basis. It does not replace the use of print or other
methods used in the conceptualisation process. It can be used to encourage construction, its true use lies in encouraging dialogue and increasing the scope for dialogue.

- It eliminates expensive travel
- It makes the best use of limited time
- It allows genuine dialogue between all participants.
- It allows immediate, full two way communication of content - verbal, pictorial objects etc.
- It provides a sense of social presence

Video conferencing can be used to increase the potential for dialogue, both within an individual learner environment and within a collaborative learner environment. Video conferencing has potential to deliver any of the three forms of courseware.

- Conceptualisation: The potential here is for delivering lectures at a distance, and following on traditional approach to learning in higher education.
- Construction: The video conferencing equipment can be used by the learners to work in groups on a task which they may not have been possible without the equipment.
- Dialogue: This is where the real potential of video conferencing lies. To support discussions and answering questions, otherwise unobtainable, either because of distance or of dwindling resources for small-group teaching. The visual presence of others may create a sense of social presence, alive though it does not add much in cognitive terms.

CONCLUSION

There is a cost efficiency argument for using technology for distribution but this should not be confused with the argument of using technology to provide more effective learning. To create a more effective learning environment, the scope for construction and dialogue must be increased.

Role of technology in education should be anticipated and appropriate measures should be undertaken for its adequate and optimum utilization by proper training of students as well as facilitators.

REFERENCES

1. www.wikepedia.org
2. www.jisc.ac.uk
4. Cr.educause.edu