ICT IN HIGHER EDUCATION
A SPECIAL CASE OF MUMBAI UNIVERSITY

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Abstract : Higher education in India is passing through a phase of incomparable expansion, marked by an explosion in the volume of students, a substantial expansion in the number of institutions and a quantum jump in the level of public funding. The vastness of the challenge of providing equal opportunities for quality higher education to ever-growing number of students is also a remarkable opportunity for correcting sectoral and social imbalances, reinvigorating institutions, crossing international benchmarks of excellence and extending the frontiers of knowledge. According to 12th FYP it is been expected to focus on utilizing this historic opportunity of expansion for deepening excellence and achieving equal access to quality higher education. Information and communication technologies (ICTs) have been proven as potentially powerful tools for educational change & reform and university of Mumbai is not distance from it. When used aptly, different ICTs can help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality by helping make teaching and learning into an active process connected to real life. Mumbai University is participating in the process of digitization and reaching to every stake holder.

**Keywords:** ICT, higher education, Mumbai university.

Introduction:

ICT is a force that has changed many aspects of the way we live. If one was to compare such fields as medicine, tourism, travel business, law, banking, engineering and architecture, the impact of ICT across the past two or three decades has been enormous. The way these fields operate today is vastly different from the ways they operated in the past. But when one looks at education, there seems to have been an uncanny lack of influence and far less change than other fields have experienced. A number of people have attempted to explore this lack of activity and influence. (eg. Soloway and Prior, 1996; Collis, 2002)

There have been a number of factors impeding the wholesale uptake of ICT in education across all sectors. These have included such factors as a lack of funding to support the purchase of the technology, a lack of training among established teaching practitioners, a lack of motivation and need among teachers to adopt ICT as teaching tools (Starr, 2001). But in recent times, factors have emerged which have strengthened and encouraged moves to adopt ICTs into classrooms and learning settings. These have included a growing need to explore efficiencies in terms of program delivery, the opportunities for flexible delivery provided by ICTs (eg. Oliver & Short, 1997); the capacity of technology to provide support for customized educational programs to meet the needs of individual learners (eg. Kennedy & McNaught, 1997); and the growing use of the Internet and WWW as tools for information access and communication (eg. Oliver & Towers, 1999).

ICT in Higher Education:

Education is important for social and economic development, and higher education is a key area to maintain a country's competitiveness in the global economy. As proclaimed in the Communiqué adopted by the participants of World Conference on Higher Education in July 2009, "At no time in history has it been more important to invest in higher education as a major force in building an inclusive and diverse knowledge society and to advance research, innovation and creativity" (UNESCO, 2009).
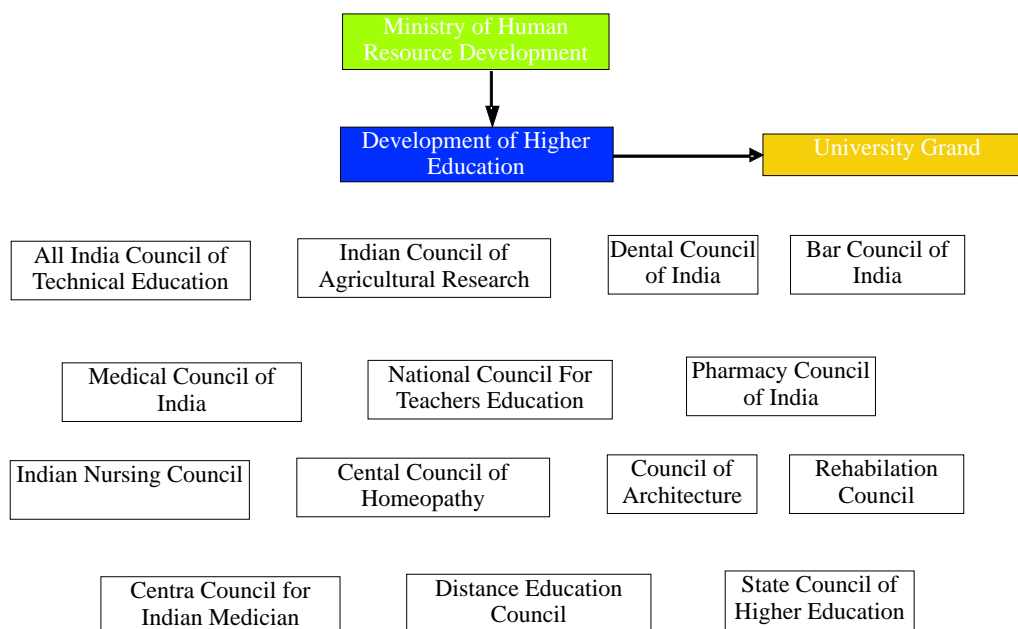
The Indian Higher Education System has established itself as the largest system in the world in terms of number of institutions and third largest in terms of student enrollment (after China and USA). While several new institutions have emerged due to significant increase in private sector participation over the last few years, concerns remain regarding the quality of education being imparted to students.

The main governing body at the tertiary level is the University Grants Commission (UGC), which enforces its standards, advises the government, and helps coordinate between the center and the state. Indian higher education is decentralized with separate councils responsible for the regulation of different institutions. The given diagram depicts the different councils of Higher Education functioning under Ministry of HRD, GOI.

Use of ICT for promoting education and development has always been a part of policy and plan documents on education. At the moment, the decision makers at both central and state are favoring inclusion of new computer and internet based IT/ICT in education (adopting cloud based virtual classrooms/universities and m-Learning initiatives). The Government of India has implemented several national as well as state specific schemes that run concurrent to large number of privately led IT initiatives at school and higher education levels.

However there is significant disparity in ICT usage between institutions in urban areas and those in semi-urban/rural parts of the country. The quality of ICT infrastructure and its use is limited in a large percentage of Autonomous/Affiliated Colleges especially due to lack of trained IT staff, connectivity issues and shortage of funds. The rapid increase in mobile penetration and evolution of 4G wireless technologies such as Wi-Max/LTE it is expected that broadband connectivity issues can be resolved by the end of the 12th five-year-plan (2012-2017) in semi-urban/rural parts of the country. The GoI should take new initiatives to rope in the private sector to provide low cost compute infrastructure for collaboration and research to colleges similar to "Aakash" tablet initiative for school children.

ICT mainly emphasis on three main categories:
- Open and distance learning (ODL)
- Blended learning
- Administration and management

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Open and distance learning (ODL) has opened the door to higher education for many students. The burgeoning number of ODL students can be attributed in part to the increasing use of ICT in HEIs, as per the figures Mumbai University's Institute of Distance & Open Learning has more than 1,50,000 students per year nationally and internationally. ICT is used not only for the delivery of lectures and materials, but also for administration and management purposes. It is clear that administrative functions such as student registration, grades, course schedules and even staffing evaluation, have benefitted from the use of ICT.

Key features and functions

Learning through Portal: Website and portal represent the window to all information about the educational institutions, courses and on-line services. These services offered through user-friendly navigation and easy access such as one-time login ID authentication process. The website and portal have essentially become the gateway to a virtual campus where staff and students are able to conduct many activities, access information and materials, and interact with each other without having to be physically on campus. Mumbai University uses these facilities to many of its features.

Student information system and services: The student support system is another priority area that strengthens /s' online teaching and learning platform. It covers a broad range of items including student registration, personal particulars, admission records, course selection and enrolment, examination timetables, test scores, transcripts and other student-related data.

Students' information is stored in a database which is easily accessible by both students and administrators Mumbai University has embarked on popularizing the smart card to handle ID recognition, financial services, information services, processes and so on. Mumbai University has recently started distributing Degree certificates through college medium so that students need not to visit university campus and colleges can act as a distributor on the behalf of University.

Learning management system: The learning management system forms the backbone for designing online courses and managing the classes, assignments and tests. A robust LMS will go a long way in supporting both the instructors and students by ensuring effective interactions between instructors and students, uploading and downloading of lessons and course materials, submissions of assignments and reports, evaluation. Institute of Distance and Open Learning (IDOL) plays very pivotal role through 'Moodle' system (Moodle acronym for modular object-oriented dynamic learning environment is a highly flexible, free software, open source learning platform. With comprehensive, customizable and secure learning management features, it can be used to create a private website for dynamic online courses) to reach to students and minimize the gap between university and ultimate learners.

Learning materials: To support online education, learning materials must be made available to students anytime and anywhere. Understandably, university with greater resources are able to tap into more advanced technology to deliver their materials, but by and large all of them provide a diverse range of online materials, including real-time and pre-recorded lectures, multimedia courseware, virtual laboratory, videos, MP3 files, library, and so on. For students who have limited or no Internet access, some of these learning materials including reference books are also available offline in the form of CDs and DVDs

Administration support and human resource management system: An efficient system that handles student affairs and manages programs and courses is a boon to both administrators and academic staff. At the same time, the University has drawn attention to the utility of ICT for human resource management.

Enlighten Yourself Every Saturday (EYES): University of Mumbai is organizing a lecture series by eminent scientists on all Saturdays from 2nd February to 13th the April, 2013 through A-VIEW, for the benefit of Research Students and faculty members of Science and Technology subjects.
- To motivate them to use technology as a tool for improving the quality of life of masses,
- To provide the students and teachers an opportunity to know what is happening in the frontiers of science and technology, and
- To create a content of powerful thoughts in visual, printed and online media.

Initially the classrooms were used to live-stream special lectures by eminent resource persons, workshops and conferences; EYES can bring a sea change in academic activities at the university and its affiliated colleges. The facility will solve the problem of shortage of qualified teachers and make interactive learning possible with limited resources. Participation in events with restricted entry can now be thrown open to all university students. Students and teachers of colleges in remote places such as Raigad and Sindhudurg now

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attend important.

Conclusion:

Indian higher education system is adopting current global trends and important is not to address the existing shortcomings in the higher education system but to move towards a bold and aspirational vision.

Mumbai University through ICT the student at the center stage is to foster innovation and choice. An ICT architecture that will increase access, equity and quality, and a transparent governance framework that will enable Mumbai University to provide micro level of education to remote section of society and attract more and more students towards it.

References:

1.http://www.icde.org/filestore/Resources/Reports/ICTforHEUNESCO.pdf
2.http://en.wikipedia.org/wiki/Moodle
3.http://timesofindia.indiatimes.com/tech/jobs/Video-conferencing-software-to-connect-20000-colleges-across India/articleshow/18792420.cms
4.http://www.ey.com/IN/en/Industries/India-sectors/Education/EY-Higher-education-in-India-Vision-2030
5.http://12thplan.gov.in
6.http://www.thehindu.com/todays-paper/tp-national/tp-newdelhi/education-online/article4473469.ece
http://www.iitk.ac.in/infocell/announce/convention/papers/Strategy%20Learning-01-Ashish%20Hattangdi,%20%20Atanu%20Ghosh.pdf