

# Role of Multimedia and Internet in Higher Education

*Upasana Garg\**, *Rishipal\*\**

\* *Commerce Department, H.K.M.V., Jind, upasanagarg72@gmail.com*

\*\**Management Department, IJET, Kinana, Jind, rishipal\_anand@rediffmail.com*

## ABSTRACT

Internet technologies are changing our lives and educational systems in many ways. Multimedia is an integral part of the educational environment. Today academic institutes and their libraries are using internet for creating an environment which is continuously changing the teaching learning process. The awareness of academic community allows potential uses of Internet. For this we need to evaluate the purpose of utilizing Internet sources in order to provide relevant services. Such studies on Internet information usage pattern also facilitate professionals to provide effective services by modifying old information provision process by using electronic tools. The impact of integrating multimedia, internet and education provides substantial benefits, some drawbacks and unresolved questions. Most sources agree on the necessity of good instructional design and development for multimedia use in higher education

In this we are trying to highlight the various problems and issues in handling multimedia and internet in higher education. We also provide suggestions to improve the services to meet the demands of the users and education system.

*Keywords:* ICT, Interanet, Internet, e-resources, CD-ROM, e-journals, web sites

## I. INTRODUCTION

Information and communications technologies (ICT) are a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. Communication and information are at the very heart of the educational process, consequently ICT-use in education has a long history. The rapid advancement of information and communication technologies (ICTs) has brought an evolutionary change in the information scenario. The internet have become the most sought after modern library's sources in satisfying varied needs of students, teachers and researchers with minimum risk and time. Information technology has changed the world and has become one of the important tools for retrieving information. The electronic information resources constitute a major portion of library collections. The value and use of information resources, particularly internet, have increased with the time. Therefore, there is necessity to make study on the different aspects of internet use among the students of academic institutions. The convergence

of ICTs as embodied in the Internet has transformed the present day society into a knowledge society. Earlier, information and knowledge were passed by words of mouth or through manuscripts, and communication was a slow process. Today it is passed from one individual to an infinite number of other users through a number of media and formats which makes rapid and widespread dissemination of information possible. New technologies bring us an unparalleled flood of information and surely it is going to affect the Higher Education system. There are many **pros and cons** to the issue of the Internet's influences on education, and experts have called it everything from the hemlock of higher education to an innovative boon. While it's probably neither of these extremes, there are some high and low points of the Internet's role in higher education that can be observed on their own. By enabling students to take advantage of the positive elements of the Internet for educational purposes and restricting the detrimental sides of the Web, academic success can become a more widespread reality.

## II. EDUCATION AND COMMUNICATION TECHNOLOGIES

The new digital ICTs are not single technologies but combinations of hardware, software, media, and delivery systems. Today, ICT in education encompasses a great range of rapidly evolving technologies such as desktop, notebook, and handheld computers; digital cameras; local area networking; the Internet and the World Wide Web; CD-ROMs and DVDs; and applications such as word processors, spreadsheets, tutorials, simulations, electronic mail (email), digital libraries, computer-mediated conferencing, videoconferencing, and virtual reality. All countries promote the use of information and communication technologies (ICTs) in education in the formal education sector today, as it has in the non-formal sector for more than 40 years. India has tried various technologies, with varying degrees of success. In fact, since the early 1950s, Indian policy makers have identified the need to use all media for promoting development and education. The subsequent policy and plan documents on education, prepared from time to time, have chalked out a role for technology applications. There has been a dramatic shift from the 1980s to the present day in terms of access to technology by the population in general. Deregulation of the airwaves and the telecommunication industry has spurred the revolution in basic telephony and Internet services. Technologies like Wireless in Local Loop (WLL) and Very Small Aperture Terminal (VSATs) are being used for Internet and intranet purposes. Radio has a penetration of 100 per cent in the country while satellite and terrestrial television cover nearly 80 per cent of the country. Theoretically, availability of ICTs is widespread in large parts of the country, with pockets of saturation. In other areas, availability is lower due to terrain or extreme deprivation. With the availability of cyber cafes, people can get access to government documents (such as birth and death certificates, land registration and government schemes. Satellite-based teleconferencing (one-way video, two-way audio) for formal and non-formal education has been operational since 1992 at a national level. The launch of EDUSAT has added a

70-channel capacity for use by all state governments and publicly funded educational institutions. Although deregulation of the airwaves has taken place in the country, the Indian government retains its role as the major player in the use of broadcast technologies for education, Private sector broadcasting has not ventured.

## III. LITERATURE REVIEW

Salaam (2003)[11], in a survey of the use of Internet services in Nigerian university libraries, found that access to Internet services in the libraries surveyed was restricted to staff only. The survey further identifies a poor telecommunication system, unreliable electrical supply, lack of Internet service providers in some parts of the country, and poor funding of the university system as major problems militating against access and use of Internet facilities. "Internet Access and Use by Students of Private Universities in Ogun State, Nigeria," M.O. Salaam, A.M. Adegboire. Akporido (2005)[15] in research carried out on Internet use in a Nigerian suburban setting- Abraka, Delta State, observes that in order to enable students at Delta State University, Abraka to use the Internet, users must pay for access in cybercafés. They are usually given a ticket password that is keyed into the system before getting access. As soon as the access time paid for expires, the system automatically logs the user off. Jones (2002)[4], in research carried out on the Internet and American life, found that college students use the Internet more to communicate socially than they do for academic work. Nwokedi (2007) [7] posits that lack of searching skills is still hindering good use of Internet. He asserts that acquisition of Internet skills can lead to discovery of valuable research and teaching resources, which would in turn cause the users to use the Internet to enhance their research and learning capabilities. Internet access ability would be expected to stimulate regular use of the Internet and minimize the perceived barriers to its use. Bansode and Pujar (2008) [1] highlight the purpose of use, methods of locating information, and search techniques used in retrieving the information by the research scholars of Shivaji University, Kolhapur. The authors find that

scholars use the internet for research and communication purposes, and conclude that more awareness about Internet resources and training in their use should be provided by library professionals. Biradar, et al., (2006) [14] conducted a study on Internet use at Kuvempur University. The results indicated that 42 percent of students use the Internet twice a week, and more than 30 percent of faculty uses it daily. The majority of students and faculty use the Internet for study and teaching.

#### IV. DATA ANALYSIS

Analysis of data is the ultimate step in research process. It is the link between raw data and significant results leading to conclusions. This process of analysis has to be result oriented.

##### *Population Study*

Personal detail section of the questionnaire provides information regarding the sex and different qualifications as can be seen from following **Table 1**.

Academic Status	No. of Respondents	Percentage
Post Graduate Students	104	39.40
Under Graduate Students	160	60.60
Total	264	100.00

**Table 1: Demographic Variables**

It shows that 60.60% of the respondents were under graduate students and only 39.40% were post graduate students.

Category	Aware	Not Aware
Post Graduate Students	21 (20.20%)	83 (79.80%)
Under Graduate Students	42 (26.25%)	118 (73.75%)
Total	201 (76.13%)	63 (23.87%)

**Table 2: Awareness about internet**

Above table shows the awareness of internet among the respondents available through the library. 79.80 % of the post graduate students were aware about the internet whereas only 73.75 % of under graduate students were aware about the availability of internet.

##### *Purpose of Using Internet /Multimedia*

From the Table 3 , it is clear that most of the respondents 61.36% use internet for studying course work, 48.48% for writing papers, and 36.36% respondents use for updating subject knowledge. 32.95% of respondents use internet for entertainment and 14.39% of users using internet for research work.

Purpose	Number	Percentage
For studying course work	162	61.36
For update subject knowledge	96	36.36
Entertainment	87	32.95
For research work	38	14.39
For writing papers	128	48.48

**Table 3: Purpose of using Internet**

**Problems faced by internet Users:** As reported in **table 4** users of ICT technologies found difficulties of finding relevant information and overload of information although it was with minority of users. Next set of problems came from security of data and viruses etc and majority of users feel that digital media can replace the physical resources.(table 5)

Variables	Number	Percentage
Difficulty in finding relevant information	92	34.85
Overload of information on the Internet	64	24.25
Virus	76	28.78
Data authenticity	32	12.12
Total	264	100.00

**Table 4: Problems faced by the users**

Variables	Number	Percentage
Yes	168	63.64
No	96	36.36
Total	264	100.00

**Table5: Do you think Internet and electronic resources can replace physical resources?**

## V. HOW TO IMPROVE STATE OF HIGHER EDUCATION

Based on the findings of this study the following suggestions are made:

- The Internet and allied technologies should be included in the curriculum of all higher education programs
- Libraries should subscribe more e-journals and e-databases.
- Some orientation training programmes should be organized by the university at regular intervals so that the maximum users can improve their excellence or proficiency in the use of the Internet for academic purposes.
- Information regarding the popular and the latest websites with their addresses should be displayed on the notice board of the institutes.
- The qualified IT staff should be appointed to provide the expert guidance to students about e-resources and multimedia with Internet.

## VI. DEVELOPMENT OF HIGHER EDUCATION WITH ICT

Many exciting applications of information technology in colleges validate that new technology-based models of teaching and learning have the power to dramatically improve educational outcomes. With the successful adoption of IT networks, the role of teacher will shift from directing individual students in self-contained classrooms to responsively distributing teaching and expertise. Some teachers will have expertise in development, disciplinary specialties and/

or learning resources. They will serve as coaches and guides in distributed environments, showing students how to find and use current, relevant and reliable information. Technology is now considered by most educators and teachers to be an integral part of providing a high-quality education. There is concern, however, that not all students, particularly students in higher special education colleges, have equal access to educational technology, both in terms of the availability of equipment and the successful integration of technology into the classroom. Teachers serve as guides to information resources, mentors of learning activity, assessors of student understanding, and managers and coordinators of distributed learning activities. Technological innovation, long a hallmark of academic research, may now be changing the very way that universities teach and students learn. For academic institutions, charged with equipping graduates to compete in today's knowledge economy, the possibilities are great. Distance education, sophisticated learning-management systems and the opportunity to collaborate with research partners from around the world are just some of the transformational benefits that universities are embracing. Research is needed to help teachers fulfill these roles and adapt to change. Clearly, a wide range of new tools and resources is needed, such as resource location and coordination tools, assessment tools, libraries of educational materials and customizing mechanisms for adapting materials to individual students' goals and developmental levels. Technology's functional roles can build upon a student's interests or intrinsic motivations to create new opportunities for learning. Many activities students may find to be exciting and intriguing might not be possible or accessible without a computer. Yet it is not currently known how systems can provide advanced functionality at a level or in a manner that students find approachable. Perhaps this challenge can be met by designing appropriate representations and metaphor-based interfaces and by somehow encouraging interconnections between students' existing knowledge and the challenges they find in these various new settings. Technology has had—and will continue to have—a significant impact on higher education. University respondents view



technology as having a largely positive impact on their campuses, but acknowledge that operational challenges may hinder the full benefits from being realized (for example, tenure, promotions and other organizational practices may need adjustment to encourage faculty members to adopt new technologies). In addition, technology may be disruptive in ways not intended: respondents note a rise in student plagiarism, cheating and distractibility, which they attribute to easy and ready access to mobile technologies. Software architecture serves as a framework for fitting together components and identifying how different pieces of software (in this case, a learning system) interact with one another. Providing good architectures can make development and implementation easier, including the creation and use of tools for building learning environments.

## VII. CONCLUSION AND FUTURE SCOPE

The use of newer, digital ICTs – because of the ability to integrate multiple media, interactivity, flexibility of use, and connectivity –are inspiring remarkable transformations in education around the world. These transformations hold promise for the improvement of the lives of the rich and of the poor, whether living in developed and developing countries. We have chosen to focus on existing, widespread uses of ICTs in education, but advances in wireless telecommunications, virtual reality, pervasive computing, artificial intelligence, speech recognition, and “next generation” networking technologies promise to remodel today’s educational applications as comprehensively as the computer revolutionized yesterday’s. The academic environment has currently undergone drastic change in terms of collections and services. The proliferation of e-resources has had a significant impact on the way the academic community uses, stores, and preserves information. The advantages of e-resources have drawn attention of the academicians to a great extent. This paper showed that Internet has radical impact on the changing higher education environment. It is interesting that Internet use is much higher than expected. Academic resources offered online in their

disciplines are reported to be inadequate (as compared to online academic resources in Sciences) and mostly in English language. The other issue was lack any formal training about how to locate these resources by saving time and efforts. Slow speed, lack of computers, lack of time, and lack of access from home are found to be the major problems. The use of electronic information sources for study and research purposes must be encouraged and proper training should be provided.

If we can claim to have detected any “theme” in our overview of ICT in education , it is this – ICT is neutral, human choices will determine how ICT will be used and whether the revolution in information and communications technologies will benefit all humanity. This is true at the micro-level, in the choices teachers make when deciding whether and how to use ICT in the classroom, at the macro-level, by the governmental and non-governmental organizations (NGOs) decide for ICT access in formal and informal educational settings.

## REFERENCES

- [1] Bansode SY, Pujar SM “ *Use of Internet by research scholars at Shivaji University, Kolhapur*” Ann. Libr. Inf. Stud. 55: 123-126.,2008
- [2] Eynon R “ *The use of the Internet in higher education: Academics’ experiences of using ICTs for teaching and learning*” Aslib Proceedings: N. Inf. Persp. 57 (2): 168-180,2005
- [3] Kaur A ,” *Internet and library*”, Libr. Herald. 38 (1): 24-31,2000
- [4] Jones S ,”*The Internet goes to College: How students are living in the future with today’s technology*”, Pew Internet and American Life Project. (September 15) Available: <http://www.pewInternet.org>. (accessed on 10/6/2011),2002
- [5] Mahajan P ,”*Internet use by researchers: A study of Panjab University*”, Chandigarh . Libr. Philo. Pract. 8 ( 2),2005
- [6] Mulla KR, Chandrashekara M ,”*Internet Users Mysore University Campus (India)*”, SRELS J. Info. Manage. 43 (3): 243-263,2005
- [7] Nwokedi VC , “*Impact of Internet use on teaching and research activities of the academic staff of faculty of medical sciences, University of Jos: A case study*” Gateway Lib. J. 10 (1): 13-22, 2007

- [8] Rajeev K, Kaur A, “*Use of Internet by teachers and students in Shaheed Bhagat Singh College of Engineering and Technology: A case study*”, J. Libr. Inf. Sci. 29 (1/2): 81-94, 2005
- [9] Raju NV, Harinarayana NS , “*An analysis of usability features of library web sites*”, Ann. Libr. Inf Stud. 55: 111-122, 2008
- [10] Rehman S, Ramzy V ,”*Internet use by health professionals at the Health Sciences Centre of Kuwait University*”, Online Inf. Rev. 28 (1):53-60, 2004
- [11] Salaam MO ,”*A survey of the use of Internet services in Nigerian university libraries*”, ASSET Series A 3(3):115-121,2003
- [12] Singh SP ,”*Internet and the role of libraries*”, J. Libr. Inf. Sci . 25 (1): 6-37, 2000
- [13] Thanuskodi S ,”*Internet use among distance learners in the changing higher education environment at the Bharathiar University*”, International Research Journal of Library, Information and Archival Studies 1(1):023-029, 2011
- [14] Birader BS, Rajshekhar GR, Sampath KBT ,” *A study of Internet usage by students and faculties in Kuvempes University*”, Libr. Herald 44 (4): 283-294, 2006
- [15] Akporido CE ,” *Internet use in a Nigerian suburban setting*”, The Elect. Libr 23 (3): 302-310, 2005