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ONLINE EDUCATION AND DISTANCE LEARNING: OPPORTUNITIES AND CHALLENGES

Dr.Silima NANDA
Deputy Director
Indira Gandhi National Open University,
Regional Evaluation Centre, BBSR
Odisha, INDIA

ABSTRACT

If we trace the inception of online learning we find that it has grown as an offshoot of distance education, which goes back at least 100 years to the early correspondence courses. With the evolution of the Internet and the World Wide Web, the potential for reaching learners around the world has increased greatly and that is how online learning becomes an effective medium offering rich educational resources in multiple media. It has also the capability to support both real-time and asynchronous communication between instructors and learners as well as among different learners. Institutions of higher education and corporate training have switched over to online learning because of its efficacy, accessibility, immediacy and global coverage. My article will analyze the salient features of online learning and shall also mention some of its challenges and opportunities that the learners, teachers and other users are faced with Case studies of online education in India (IGNOU) and In Japan OUJ have been analyzed with reference to digital growth also in other countries across the globe. In future times due to upgradation in the cyber and technology industry and due to marketing by corporate players the scope for online learning remains very prospective.

Keywords: Internet, real-time, multiple media, learners, global.

INTRODUCTION

Online learning is not something very new; it has been existing since the last 100 years encompassing earlier technologies such as correspondence courses, educational television and videoconferencing.. With the advent of the Internet and the World Wide Web, the potential for reaching learners around the world increased greatly, and today's online learning offers rich educational resources in multiple media. Online learning has become popular because of its potential for providing more flexible access to contents and instructions at any time and from any place. It is greatly helpful for such learners who are not in a position to attend traditional face-to-face classes for number of reasons It has the capability to support both real-time and asynchronous communication between counselors and learners as well as among the peer group learners.. It enables instructors to handle more students while maintaining the quality that is equivalent to that of face-to-face teaching. Thus online learning helps in breaking down traditional physical boundaries and thus creates a new online culture that is unique in its own right.

PRACTICES OF ONLINE LEARNING

The technological applications of online learning are multimodal. One genre of online learning mode uses asynchronous communication tools (like e-mail, threaded discussion boards, newsgroups) while Synchronous technologies (e.g., webcasting, chat rooms, desktop audio/video technology) are used for delivering lectures and holding meetings with groups of students. Bernard et al. (2004) observed that the distance-education condition resulted in greater favorable outcomes when opportunities for computer-

mediated communication were available. Bernard et al. (2004) found advantages for asynchronous over synchronous distance education. Many studies have found out that empirically online participation has positive effects on the learning satisfaction, retention as well as the learning outcomes (Alavi & Dufner, 2005; Morris, Finnegan, & Wu, 2005)

Research has suggested that online participation involving social interactions in collaborative online learning environments, motivate the students to learn and promote their learning satisfaction (Cobb, 2009;) There is a paradoxical situation resulted through communication technology ; on the one hand cultural divide is gradually diminished due to it while on the other hand, tensions arise within societies when new influences run tangent with age-long traditions due to this technological development.

Earlier online programs tended to implement one model or the other. But the recent applications tend to combine multiple forms of synchronous and asynchronous online interactions as well as occasional face-to-face interactions.. One common conjecture is that online technologies can be used to expand and support learning of a community of learners (Bransford, Brown and Cocking 1999; Riel and Polin 2004; Schwen and Hara 2004; Vrasidas and Glass 2004). Studies indicate that manipulations that trigger learner activity or learner reflection and self-understanding are effective when students pursue online learning as individuals. Modern online learning includes offerings that run the gamut from conventional didactic lectures or textbook-like information delivered over the Web to Internet-based collaborative role-playing in social simulations and highly interactive multiplayer strategy games. Examples include primary-grade students practicing reading skills over the Internet, middle school students collaborating with scientists peer groups in the design and conduct of research, and dropout teenagers from high schools taking courses online to attain the credits needed for graduation. In deciding *how* to implement online learning, it is important to understand the practices that research suggests can increase effectiveness (e.g., community building among participants, use of online facilitator, blending work and training)

TYPES OF ONLINE LEARNING

Online learning experiences can be classified as Interactive when learners interact with one another, with teachers or other knowledge sources or it can be Active learning where the student has control of what and how he or she learns. The other form is expository learning where technology delivers the content. Typically, in expository instruction, active learning, and interactive learning technology mediates human interaction either synchronously or asynchronously. The learner-control category of interactive learning experiences is related to the so-called "fifth generation" of distance learning, which stresses a flexible combination of independent and group learning activities. Researchers are now using terms such as "distributed learning" (Dede 2006) or "learning communities" to refer to orchestrated mixture of face-to-face and virtual interactions among a cohort of learners led by one or more instructors or facilitators over an extended period of time .Online learning depends upon many factors that would reflect the nature and quality of instruction. This includes the type of setting (classroom, home, informal), the nature of the content (both the subject area and the type of learning such as fact, concept, procedure or strategy), and the technology involved (e.g., audio/video streaming, Internet telephony, podcasting, chat, simulations, videoconferencing, shared graphical whiteboard, screen sharing). Quizzes, simulations and individualized instruction are features of an online learning environment that affect the performance of learners. A study by Zhang et al. (2006) found that the effect of video on learning hinged on the learner's ability to control the video ("interactive video"). The authors used four conditions: traditional face-to-face and three online environments—interactive video, non-interactive video, and non-video. Students were randomly assigned to one of the four groups. Students in the interactive video group performed significantly better than the other three groups. Four studies (Cavus et al. 2007) provide preliminary evidence supporting the hypothesis that conditions in which learners have more control

of their learning (either active or interactive learning) produce larger learning gains than instructor-directed conditions (expository learning experiences).

MOOCS

Several platforms are available for online learning—an exclusively Web-based environment or e-mail or mobile phone. Before we discuss the growing popularity of MOOCs in the online forum it is important that we understand what MOOC stands for. It means Massive Open Online Courses and according to the oxford online dictionary's definition, 'MOOC is a course of study made available on the internet without charge to a very large number of people.' MOOCS are offered by some of the most prestigious universities in the world such as MIT, Harvard, Cambridge and many others. In recent times Indira Gandhi National Open University, India has been offering MOOCS to students. The popularity of MOOCS has been because of its access, it can be taken by anyone, anywhere in the world. The best part is that most of these courses are free and one can take them at one's own convenience and pace. It allows opportunity to learners to complete full courses in a nontraditional format by getting 'badges' as certificates for their course completion. MOOCs give access to the teaching of a subject expert/teacher to thousands of students at once. The lectures, assessments and activities and the expertise of the professor are the unique features of MOOCS. Courses in MOOCS aren't structured in traditional patterns; they can start any time and can be of any length. They are based on a topic or a series of courses that might build towards a deeper understanding in a knowledge area. MOOCs have a distinct advantage in their ability to scale and provide education to learners especially the developing countries and it will be at the center of many exciting and challenging opportunities. The challenges of MOOCS are their regular monitoring, quality assurance and issue of accreditation of credits gained by participating in MOOCS.

Educators making decisions about online learning need rigorous research examining the effectiveness of online learning for different types of students and subject matter as well as studies of relative effectiveness of different online learning practices. If we talk about the challenges of online learning we find that in face-to-face learning environments, learners can naturally know who is an active participant and which group is more collaborating, and subsequently be motivated to participate more by them. On the other hand, engaging students to participate in online communities is not easy because many learners can be indolent and contribute very little (Barría, Scheihing, & Parra, 2014).

Social Networking

In the field of online learning, social networking is one of the most important communication tools where millions of people can share interests on certain disciplines, share files, photos and videos, create blogs send messages, and conduct real-time conversations. These networks are described as social, because they allow interaction through web with friends and colleagues and strengthen the ties between members. The most famous in the world of social networks are Facebook (Facebook.com), Twitter (Twitter.com) MySpace (myspace.com) and others. Social networking technologies such as Facebook allow members to participate in a learning environment where the learning process can occur interchangeably from both inside and outside of the classroom. It should be noted that social networking provides participation through such virtual classrooms, chat rooms and meetings by video. Teachers /counselors can also gain feedback from students via constant communication and produce an effective instructional technology for their customers. Thus networking technology can be used effectively as a learning tool for both students and teachers. There are however many challenges associated with the use of social networking in education such as privacy, taking up time and miscommunication. Although a lot of information individuals' supply on social-networking sites is elective, users are progressively more comfortable with displaying a great deal of personal information online. Data on these social-networking sites for a person is not always 100% honest and reliable, and they do not verify personal details (age, location, etc.) of their members.

While sites provide opportunities for individuals to present a positive and accurate self-image, there is an equal potential to abuse this openness. This may affect the use of social networking in education. The issue of health is also crucial because spending a lot of time browsing social networks can affect the way the genes operate within the human body and can weakens the immunity , hormone levels, and function of arteries. In addition, it is also has an impact on mental health. Sitting in front of computer for a long time, can cause lack of motivation towards learning and can be boring especially if the scientific material presented is free of audio and visual effects. If on the one hand privacy, real friendship, and miscommunication are the most important challenges facing education through the social networking on the other hand, flexibility, repeatable and convenience and accessibility have a vital influence in the field of social networking in education.

Now to understand better the opportunities and the different stages of online learning we can analyze the case studies of two Distance Learning institutions: one from Japan and the other from India where online learning are in different stages of their development..

Case Study of IGNOU, India and Open University of Japan

Indira Gandhi National Open University (IGNOU) was established in 1985 with jurisdiction over the entire country. It started its operations by initially offering a Diploma in Distance Education and Diploma in Management in1987 to 4,528 working professionals. But eventually it evolved and enhanced its scope and reach introducing various programmes at different levels; catering to almost all sections of the society. Today, it serves the educational aspirations of nearly 1.8 million students in India and 32 other countries through twenty-one Schools of Study and a network of 58 regional centers, more than 1804 study centers/ tele-learning centers and around 46 overseas study centers. The reasons for its enormous enrolment are because of its objectives of flexibility, equity, quality use of technology and access. Nearly 50 per cent of the fresh school pass outs enroll in IGNOU's programmes every year. The university's vision of collaborative learning on the basis of partnerships has enabled the institution to leave its footmarks not only inside the country but across the globe. Its features of curriculum design, planning , development of study materials (both in printed and e-form) and efficient learner support services has enabled the university to reach the frontier position in the field of distance education. IGNOU has been playing a pro-active role in providing higher education opportunities for all with considerable success. Out of the total enrolment reported, enrolment under distance mode of education was about 17 per cent. (MHRD, 2012, p. 69).

IGNOU as a Distance Learning provider has crossed several stages of teaching-learning; starting with correspondence and moving on to blended and distributed form of learning. In recent times it has developed digitized and experiential learning method. The university has started the centre for Online Education which has the mission to make IGNOU a global leader using latest online technology and pedagogical practices. IGNOU practices a flexible and open system of education in regard to methods and place of learning, combination of courses and eligibility for enrolment, age for entry and methods of evaluation etc. The University has adopted an integrated strategy of imparting instruction. This consists of providing print materials, audio-video, tapes, broadcast on radio and educational TV Channels, teleconferencing, video conferencing as also the face to face counseling, at its study centers located throughout the country. The University follows the method of continuous assessment and term-end examination for evaluation of the performance of its students. enrolled in various subjects. Very recently new programmes like Masters in Hindi, Gandhian Studies, Bachelor in Tourism and other programmes were launched by the Minister of Higher education.

Centre for Online Education

The centre for online education in IGNOU strives towards continuously updating the learning technologies through research and networking with other institutions working in areas of online and virtual learning. It provides capacity building opportunities to all online education providers in the country. The Ministry of Higher Education, Government of India

has made IGNOU the nodal coordinator of SWAYAMPRABHA (a Direct to Home channel) which runs five educational channels dedicated to different disciplines like liberal Arts, Humanities, Agriculture, vocational and Allied Sciences. These channels are telecast in collaboration with state open universities and National institute of Open schooling and the name of this channel is Gyan Darshan A Social Media Group for SWAYAM PRABHA has been created through Twitter and Facebook and also sharing information through Whatsapp group. The digitized repository called the 'E-Gyankosh' has free access to the public and facilitates the learners to search and access Self Learning Materials of more than 227 Programs offered by IGNOU.

Gyan Vani (GV) FM Radio serves as an ideal medium for the learners remotely located and addresses their educational, developmental and socio-cultural requirements. The medium of the channel is English, Hindi or language of the region. The contents pertain to Primary and Secondary Education, Adult Education, Technical and Vocational Education, Higher Education, Distance Education and Extension Education etc. Besides these, Interactive Radio Counseling (IRC) sessions for the benefit of IGNOU students are scheduled everyday with the participation of 21 schools, STRIDE, RSD and other Divisions of IGNOU. Two live sessions are broadcast every day on FM Gyanvani Delhi and online at Gyandhara from 11:00am to 1:00pm with repeats broadcast from 5:30pm to 7:30pm. In addition, every Thursday, 4-5 pm a special IRC session is conducted for Students Support Services. Students can listen to live discussions by teachers and experts and interact with them through telephone, email or through chat mode on Gyan Dhara. Free online courses through MOOCS are delivered to the learners through the Swayam platform. Already more than twenty courses are imparted to the learners and gradually more number of courses are being added. The live webcasted videos are uploaded on the IGNOU You tube section of e gyankosh digital repository. Also the e-content (mobile application app) of IGNOU is made available on Google Playstore for the IGNOU learners. Through this app on the smart phone or laptop, the learners can access their programmes and course material anywhere and anytime. It is a digital initiative to take the education to the doorsteps of the learners. Regular Web-conferencing is effectively used by the university to communicate between the headquarters and Regional Centers across India and different Schools with respective academic counselors. The platform used for web-conferencing is adobe Connect and the URL is http://classroom.ignouonline.ac.in

Library Network

Library subscribes to various online databases including e-books, journals, indexes, bibliographies, Statistical Reports etc. The following links can be browsed for various online resources: Developing Library Network (DELNET) which provides services like browsing of Union Catalogues, Inter Library Loan and Document Delivery Services. Interested Readers can access the Catalogues of other Libraries also through DELNET. *Sugamya Pustakalaya* is a collaborative effort of TCS, Daisy Forum of India and NIEPVD (National Institute for Empowerment of Persons with Visual Disabilities), and Government of India to end the book famine faced by people with print disabilities. Through this app one can access books in diverse languages from various libraries across India. IGNOU has also partnered with international agencies like Book share and Accessible Books Consortium for providing accessible online books from all over the world.

During the present pandemic period of COVID 19, IGNOU's Regional Centres are offering regular online counseling sessions and students support to learners scattered across the states through ZOOM and Google Meet. Core faculties from different Schools are delivering their video lectures through Google Meet, and Face Book. Evaluation of assignments is done online, marks are uploaded online, and Admissions are also online. Efforts are made to make the LMS of the institution thoroughly online. In the COVID period Webinars, workshops and conferences are regularly conducted for the benefit of learners. Administrative decisions and discussions of different committees of the university are conducted done online.

In Japan, distance education has been taking place for quite a number of years but under a different name. The Japanese distance education program started by using the postal system that was available to them at the time. Professors and students would communicate and correspond with one writing back and forth through the existing mail system. Then came the radio. Radio broadcasting in Japan was inaugurated on March 22, 1924, and Shinpei Goto, the first pres dent of the Japanese Broadcasting Company (NHK) mentioned that one of the major missions of public broadcasting was "socialization of education," among other things (Kato, 1997). This allowed for many more people to participate in distance education with increased ease and speed. The Open University of Japan (OUJ) was founded in 1983 by the Open University of Japan Foundation, under the auspices of the Ministry of Education, Culture, Sports, Science and Technology, and the Ministry of Internal Affairs and Communications. The objectives of the Open University of Japan are to provide a wide range of people with opportunities for obtaining higher education and to promote broadcasting media and other innovative means of education. Taking advantages of terrestrial through broadcasting, digital broadcasting and satellite broadcasting, OUJ provides effective broadcast lectures using vivid visuals in high-definition and information content developed by experts in the field. If we look at the history of the growth of distance education in Japan we find that it had its origin in June 1981 with the establishment of the University of the Air foundation. Subsequently courses were offered through broadcasting lectures, students were admitted and schools opened. In April 2009 the Center of ICT and Distance Education (CODE) was established. In Oct. 2011 nationwide broadcasting over BS (Broadcast Satellite) digital broadcasting was launched. Online course service was launched in April 2015. The Center for Open Distance Education was reorganized as Center for Online Education (COE) in April 2017. The University of Tokyo was the first Japanese university to offer MOOCs with two courses on the Coursera platform in September 2013. Along with self-improvement, learners were encouraged to use MOOCs to improve their professional skills and the individual validated certificates helped learners to advance in the workplace and make career changes. As of April 2018, University of Tokyo has 14 courses available (seven via Coursera and seven via edX). More than 370,000 students from over 185 countries have enrolled in these courses. So far use of the Internet within most Japanese universities has been restricted mainly to e-mail, marketing and distribution of printable material. There is growing concern about the prospect of competition from prestige universities overseas offering Web-based courses, but given the conservative nature of the Japanese higher education system it seems likely that Japan will continue to lag behind other countries in this arena for the foreseeable future.

Growth Pattern in OUJ

Till now in Japan, e-learning has been slow to take off mainly because of the high cost of connectivity. The widespread proliferation of flat rate broadband presents corporate, institutional and individual e-learners with a much more interesting opportunity for continued learning. With its greater connectivity speed and bandwidth, broadband allows for the introduction of video streaming, more sophisticated chat functions and other features that help to make the e-learning experience more varied in terms of content and more accessible. Language is surely the main factor that explains why the Japanese have been slow on the whole to embrace Internet technology despite their very strong high-tech manufacturing base. With a roughly similar level of ability in English however Korea has made better progress; it s is because of greater commitment on the part of their government. In Korea there are already as of March 2001—nine "cyber universities" in operation, with a further seven scheduled to begin operation in 2003 (Jung, 2001).

According to the country report from Japan in June 2001 OECD (Organization for Economic Co-operation and Development) workshop held at NIME (OECD, 2001), a total of over 200,000 students were enrolled in correspondence colleges and universities. As for the traditional campus-based institutions, 34 percent of universities and 29 percent of colleges were "using the Internet" in 2000 while a further 17 percent and 23 percent (respectively) were "planning to introduce online education." Faster expansion has reportedly been hindered by a shortage of funding and of staff with the appropriate skills (Bush, 2002). Use

of the Internet within most Japanese universities has so far been restricted mainly to e-mail and Web sites for external marketing and internal distribution of printable material. Now some intranets are functioning that include online databases for things like student registration, but in general they are less well developed than the intranets within British or American universities (Bush, 2002). One of the reasons for this is under-staffing; relatively low levels of administrative and technician support within most Japanese universities. However, the picture is changing quite rapidly as a result of several initiatives that began in the late 1990s; one such is the "School on the Internet" project (SOI, 2001). This began in 1997 and now offers over 800 hours worth of archived lecture videos about Internet-related topics, delivered to recipients via video streaming over the Internet. Communication amongst students and faculty members is conducted via e-mail, bulletin boards and Internet Relay Chat. A total of around 7,000 students have enrolled for School on Internet courses. Although Japan has been slow to introduce asynchronous Web-based e-learning, there has been substantial use of teleconferencing to support inter-university synchronous distance learning- predominantly by the public universities. Over 120 universities and other institutions are linked to the satellite-based Space Collaboration System which has NIME at its hub, and some other universities now "share classes" with foreign (mostly American) universities. In a recent paper (Sakamoto, 2001) the Director General of NIME, Takashi Sakamoto, said that "some universities [in Japan] have started to provide distance education via the Internet and videoconferencing [and] of particular significance is the growing number of Japanese universities that are linked in this way to universities overseas." He cited various collaborations between one or more universities in Japan with universities in the USA, and also with universities in Vietnam, Singapore, Germany, and France.

CONCLUSION

Other than Japan and India current trends in Sub-Saharan Africa and South Asia illustrate that online education is gaining traction in these regions despite persistent technological barriers. This is not because it is a better form of learning, but because it is perceived as a rational, cost-effective means to widen educational opportunities. In the United States, it is now commonplace for established universities to offer online degree programs. Nearly 31.6 percent of all college students took at least one online course in 2016. The e-learning landscape in developing countries is set to evolve dramatically as local private providers, public universities, and governments all push into this dynamic market segment. Virtual University is one of several online universities that have sprung up across Africa. Others include the University of Africa, Unicef University, the Virtual University of Uganda and the Virtual University of Senegal. Rising Internet in many parts of South Asia has opened the doors wide for digital education. At present India offers the second largest online education market after the United States. The consulting firm like KPMG and Google envision that the value of India's digital learning market by 2021 will grow eightfold. Thus online or digital learning will continue to expand across the globe and will continue playing an important supplementary role similar to the role distance learning universities have already played for decades. The corporate sector as stakeholder and other private organizations are expected to accommodate new technologies to make on line learning more interesting in the near future. With the help of innovative technologies the employees as well as the learners can be better trained and assured of a progressive growth. And at the end of the day, excellent training can lead to the creation of successful students or productive workforce.

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BIODATA and CONTACT ADDRESSES of AUTHOR

Dr. Silima Nanda has more than twenty years of teaching experience in undergraduate and post graduate Government colleges of Odisha. She joined IGNOU in 2006 and has twelve years of experience in handling the overseas operations of the university. Presently she is Deputy Director in REC, BBSR, monitoring the activities related to evaluation and re-evaluation of the University.. She has a doctoral degree in American literature and has authored several books and contributed number of articles in prestigious international and national journals. She is multi lingual and has visited number of countries in her service sojourn. Besides these she has designed and developed the Certificate Program in Value Education of the university.

Mail id: snanda@ignou.ac.in, silim@rediffmail.com
Orcid ID: https://orcid.org/0000-0002-3921-4984