

## **REQUIRE OF COOPERATIVE LEARNING NETWORK THROUGH VIRTUAL COURSE AND GENERAL EDIFICATION PLATFORM FOR OPEN EDUCATION IN INDIA**

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**Abstract-**Human Resource Development is the prime aim behind government funding for higher education and the same should not be restricted to the student getting admission to regular conventional University. In this era of globalizations, the educational needs of an Individual were not correctly catered in form of the conventional form of education. Now, knowledge modules are based on the personalized needs of the learner and need to be delivered at right time with right content. In conventional form of education, the knowledge and capability profile of individual learner is not given any importance. The larger size of class room has also made it impossible for an educator to keep a record of the same. As such, we need a system that would fill these gaps. Here comes the need of the Virtual Classroom. In this work, the authors tried to give a brief account of virtual classroom and its components. The paper is organized into four parts, the first part describe about majors' forms of educational activities due to globalization. In second part, we define Transnational Education; Glocals; Online Education. The third part describes about need of Collaborative Education Network and common education platform for Open education and its benefits. In fourth part, we will discuss the need of virtual class room for better learning modules.

**Keywords:** *Globalization; Transnational Education; Glocals; Online Education; Collaborative Education Network; Convention Systems; Emerging Systems; Information Industries*

### **Introduction**

According to David Woodhouse [1], the globalization has its impact of education. Now, the following majors' forms of educational activities get manifest in a globalised world. These forms:

- Transnational education
  - Branch Campus
  - Franchises
  - Twining
  - Corporate University
- Online education: The 'Virtual University'
- Distance Education-online
- Collaborative education

These are some of the futuristic forms of education in era of globalization. We need to implement them in our higher education system [2] to cater the learning needs of more than 50 crore Indians (working population) in a cost effective manner.

Transnational education [3] is a system where the education provider and the students opting for education are located in different countries. In this system, the interactions among educational providers [4] and students are carried out through emails, computer network, teleconferencing etc. In table 1 few example of transnational education is given. To serve a student better, the educational providers go for the following schemes:

- They open Branch campus in the country where student seek admission to its programmes.
- Education providers in one country approve education providers (Franchises) in other countries to provide one or more programmes to students of the host countries
- Two institutions in two countries agree to offer joint education programmes (twinning) to students.
- Multinational companies offer staff development programmes to their own staff across the globe where the programmes are linked to some formal universities (Corporate Universities) so that employees of the multinational companies get credits for their studies.
- Distance education programmes are offered by leading Open and Distance Learning Institutions to students across the world through Computer Networking, private educational broadcast etc.

**Table 1: Examples of Transnational Education**

Institution Name	Host Country	Home Country
Baruch College, City University of New York	China	USA
Florida International University	China	USA
Johns Hopkins University	China	USA
Lancaster University - Partner with Sunway University	China	Malaysia
Missouri State University	China	USA
New York Institute of Technology	China	USA
University of Nottingham	China	United Kingdom
University of Surrey	China	United Kingdom
Webster University [2 campuses]	China	USA
Bharati Vidyapeeth University	Dubai International Academic City/Dubai Knowledge Village (Free Zone)	India
Birla Institute of Technology and Science	Dubai International Academic City/Dubai Knowledge Village (Free Zone)	India

Source (<http://www.globalhighered.org/branchcampuses.php>)

**Benefits to learners from Transnational Education:**

Institutions should take the opportunity to engage with those who seek an international education but want to stay local **such student are also called 'glocal' students** (Rahul Choudaha, director of research and advisory services, World Education Services, New York) [5]. Glocals represent the segment of students who typically seek transnational education (TNE) including international branch campuses, twinning arrangements and online education. It can help to intake large learners' across the world and help to cater the domestic needs of developing countries that require high-level expertise. It may provide the students and academicians opportunity of achieving the international standards of education.

**Online Education:**

It is product of information Technology also called Learning Management System (LMS). Now, they are termed as Virtual University [6], examples of virtual university is given in Table 2. They do not have physical manifestation of the university[7]. Student and teachers from different demographical area may be part of it. Educational discourses between them take place through internet or online connectivity.

**Table 2:Example of virtual University**

<b>Western Governors University</b> <a href="http://www.wgu.edu/wgu/index.html">www.wgu.edu/wgu/index.html</a>	Consortium	United States
<b>Yashwantrao Chavan Maharashtra Open University</b> <a href="http://www.ycmou.com/">www.ycmou.com/</a>	Evolution of an Existing University	India

(Source: <http://www.unesco.org/iiep/virtualuniversity/linksliste.php>)

**Distance Education Online Mode (DEOM):**

Many face-to-face universities around the globe prefer to provide distance education in e-learning mode through a well managed websites using LMS (Table 3). Once a course is created, it can be repeated to indefinite number of students with minimal staff intervention. Moreover, these courses provide wider students' access and help to facilitate globalization [8] of good academic programmes.

**Table 3: Examples of Distance Education in Online**

Overall Rank	Name of the Institution	Location	Resources & Reach	Learning & Experience	Result & Efficiency	Total*
1	Indira Gandhi National Open University	New Delhi	208.40	258.12	198.00	665
2	Yashwantrao C Maharashtra Open University	Nasik	145.81	239.54	233.16	619
3	Sikkim Manipal University	Gangtok	73.64	284.96	257.15	616
4	IMT Distance and Open Learning Institute	Ghaziabad	43.41	285.00	249.22	578
5	University of Mumbai	Mumbai	17.04	262.35	256.32	536

(Source: <http://www.careers360.com/news/4596-30-Best-Distance-Education-Institute>)

**Collaborative Education:**

Here many college and university come together to offer different courses together using a single platform. In such system, Candidates who have already obtained any UG/PG Degree from any recognized University are eligible to enroll for an additional degree. The students complete additional degree in one year. Examples: The Australian Collaborative Education Network (ACEN) is the professional association for practitioners and researchers from the higher education sector, industry, community and government representatives, involved in work integrated learning (WIL) in Australia.

With implementation of these emerging systems of education, Universities are becoming more and more financially efficient, generating more and more resources, but in the process may lose sight of their main academic goals and objectives. The table 4 given below gives a brief difference between conventional systems and emerging systems of education.

**Table 4: Conventional Vs. Emerging Systems of Education**

Conventional systems	Emerging systems
Welfare approach	Market approach
Public higher education	Private higher education
No fees/low fee	Introduction of fees/ High fees
Emphasis on formal/full time education for all sections.	Open/distance/part-time education for economically weaker section and formal/full time education for better-off sections
Scholarly/academic discipline of study	Self-financing, commercially viable/profitable disciplines of study
Heads of Institutions selected for academic background	Heads of Institutions selected for expertise in financial / money management and resource generation.

**Virtual Library:**

Traditionally, University or Institute Libraries are collections of books, manuscripts, journals, and other sources of recorded information. For many years libraries have participated in cooperative ventures with other libraries exploiting information technologies[9]. They have shared catalogue and information about what each has in its collection. They have well-developed mechanism for borrowing and lending of materials (*e-journal, eBooks*) among themselves through [10] Library Consortiums (e.g. UGC-INFONET Digital Library Consortium) and Library Network (such as INFLIBNET, DELNET). Library professional are expert in finding information from on-line and CD-ROM databases (e.g. *SOUL, KOHA, LIBSYS*). Now, society has begun to value information more highly, the so-called information industry has developed out of the greater library networks. This industry or networks encompasses publishers, software developers, on-line information services, and other businesses that package and sell information products.

***Some Benefits of Information Industry:***

- (i) Libraries no longer have to own an article or a certain piece of statistical information.
- (ii) A student with her own computer can now go directly to an on-line service to locate, order, and receive a copy of an article without ever leaving her home.
- (iii) People do not have to go to a building for some kinds of information, users do not need help to locate the information they want. In a traditional library building, a user has access to a catalog that will help locate a book.
- (iv) Usage of standard ways (e.g. HTML, Metadata, SGML and Selective Dissemination of Information) to identify pieces of information used by Library professional helped to develop good digital libraries.
- (v) Increased availability of electronic information has led libraries, particularly universities, to develop important relationships to their institutions' computer centres. In most educational institutions librarians have assumed responsibility for both the library collection and computer services (e.g. Information Hubs).
- (vi) With Internet connections in Peking (Beijing), Moscow, and across the globe, people who did not have access to traditional library services now have the opportunity to get information about all types of subjects, free of political censorship.

***Some Drawbacks of Information Industry:***

- (i) For many years libraries have bought books and periodicals that people can borrow or photocopy for personal use. Publishers of electronic databases, however, do not usually sell their product, but instead they license it to libraries (or sites) for specific uses. They usually charge libraries a per-user fee or a per-unit fee for the specific amount of information the library uses. When libraries do not own these resources, they have less control over whether older information is saved for future use.

**Virtual Library to Virtual Class Room:**

The word "library" does not refer to the same institution it did 10 years ago. Since 2002, the purpose of libraries has changed dramatically, from what they buy, to how they use their space, to what users read and where they read it. Due to change in technology from manual to digital, there is lot of scope of development new methods of creating, storing, organizing, and providing information using Digital Library Platform (E. g. DSPACE, JOOMLA, Greenstone). Expectation of teacher as well as students has increased a lot from Academic libraries. Based on these expectations, Libraries have responded by developing more sophisticated on-line catalogs (e.g. OPAC, Virtual Library). The changes in libraries outlined above originated in the United States and other English-speaking countries. But electronic networks do not have geographic boundaries, and their influence has spread rapidly. With these changes, libraries have changed, so, too, has the role of the librarian. Now, librarians have assumed the role of

educator to teach their users how to find information both in the library and over electronic networks. Now, library professional has to expertise himself about computers and computer software. A lot of work in the field of computer technology has to be done to preserve the human cultural records of the past or assure that library collections on crumbling paper or in old computer files can still be used by people many centuries in the future. Now, in scenario of emerging form of education, the work of library professional has also moved outside library walls. They have begun to work in the information industry as designers of new information systems, researchers, and information analysts. The success of institution to provide modern education solely depends on the capability of library professional of an institute to develop such information systems.



Figure 1: Use of ICT in Education (Source AICTE Website)

### Virtual Class Room and its need:

A virtual classroom is concept in which learning environment is created using IT Tools. The learning environment may be of two type (i) Web-based or (ii) Software Based. The web-based can be accessed through a portal. The software-based require downloadable executable-files. The main concept of Virtual Classroom is that a student in a virtual classroom participates in synchronous instruction Figure 2 give a layout of the virtual classroom as per NIC specification.



### Typical Virtual Class Room Layout

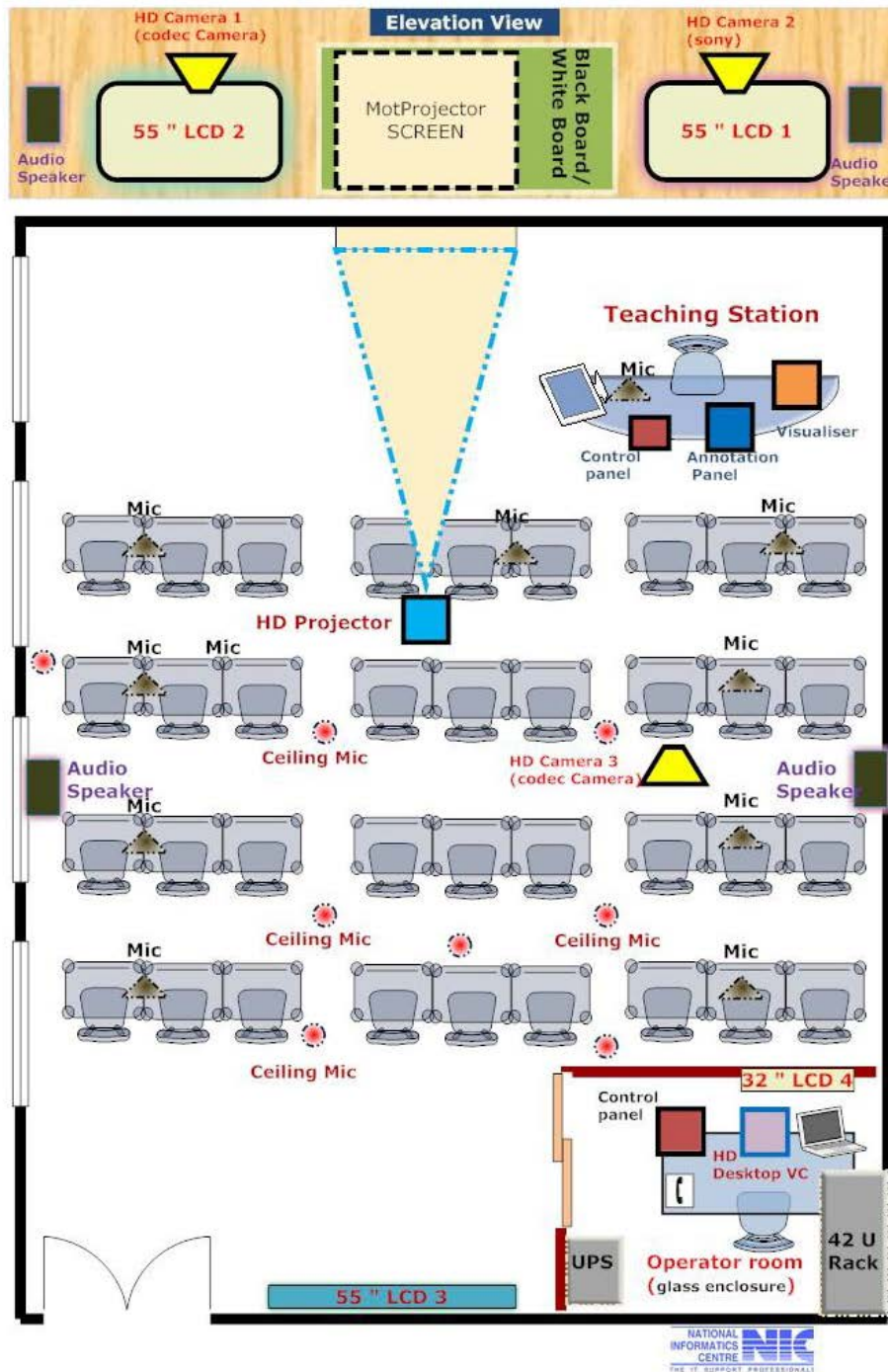


Figure 2: Layout of Virtual classroom (Source: <http://nkn.in/nkn-workshop2013/images/presentation/NKN-BLR%20Interactive%20class%20Room.pdf>)

Now days, a large number of educational Agencies and institutes have rolled out virtual classrooms to provide synchronous distance education. Virtual classroom software applications generally employ technologies, such as web conferencing, video conferencing, live-streaming, and web-based VoIP to provide remote students with the ability to collaborate in real time [11]. To enhance the educational process, applications may also provide students

with asynchronous communication tools, such as message boards and chatting capabilities which act as remedial classes for weak students.

Table 5 Examples of Software for Virtual Class Room

Vendors/ Institute	Website	Name of the software
NIC	<a href="http://www.nic.in/">http://www.nic.in/</a>	Virtual Class room
WiZIQ Education. Online	<a href="http://www.wiziq.com">http://www.wiziq.com</a>	WizIQ
Excelsoft	<a href="http://www.excelindia.com/">http://www.excelindia.com/</a>	SARAS
Blackboard Inc	<a href="http://www.blackboard.com/">http://www.blackboard.com/</a>	Blackboard Collaborate
Commelius Solutions	<a href="http://www.commelius.com/cloudrooms/">http://www.commelius.com/cloudrooms/</a>	Cloudrooms
IIT, Kharagpur	<a href="http://www.iitkgp.ac.in/cet/">http://www.iitkgp.ac.in/cet/</a>	Virtual Classroom Software
Amrita University & IIT Bombay	<a href="http://aview.in/">http://aview.in/</a>	A-VIEW

The concept of virtual classroom is very new in India and very few educational institutes (e.g. IIT Kharagpur, IIT Bombay, Amrita University) are working and doing research in the field of educational technology. A lot of effort has been given by Ministry of Human Resource Development (MHRD), India to develop an online –platform through project NMEICT- Sakshat [12] that can be used by the learner through-out the country and from different field of studies (Table 6).

Table 6 Examples portal develop under NMEICT- Sakshat

Name of the Portal	Website
Amrita Virtual Interactive e-Learning World	<a href="http://aview.in/">http://aview.in/</a>
	<a href="http://www.co-learn.in/">http://www.co-learn.in/</a>
Consortium for Educational Communication	<a href="http://cec.nic.in/Pages/Home.aspx">http://cec.nic.in/Pages/Home.aspx</a>
e-PG Pathshala	<a href="http://epgp.inflibnet.ac.in/about.php">http://epgp.inflibnet.ac.in/about.php</a>
e-Yantra	<a href="http://www.e-yantra.org/">http://www.e-yantra.org/</a>
Free and Open Source Software for Education	<a href="http://fossee.in/">http://fossee.in/</a>
Pedagogy Project	<a href="http://www.ide.iitkgp.ernet.in/Pedagogy1/pedagogy_main.jsp">http://www.ide.iitkgp.ernet.in/Pedagogy1/pedagogy_main.jsp</a>
National Programme on Technology Enhanced Learning	<a href="http://nptel.ac.in/">http://nptel.ac.in/</a>
Spoken Tutorial	<a href="http://spoken-tutorial.org/">http://spoken-tutorial.org/</a>
Virtual Labs	<a href="http://www.vlab.co.in/index.php">http://www.vlab.co.in/index.php</a>

*Need of Virtual Classroom to enhance the quality of Open Mode of Learning:-*

- Economize on the time of teaching staff, and the cost of instruction.
- Facilitate the presentation of online learning by instructors without web authoring experience.
- Provide instruction to students in a flexible manner to students with varying time and location constraints.
- Provide instruction in a manner familiar to the current web-oriented generation of students.
- Facilitate the networking of instruction between different campuses or even colleges.
- Provide for the reuse of common material among different courses.
- Provide automatic integration of the results of student learning into campus information systems.

## Conclusions:

Through on-line technologies and virtual classrooms, it is possible to cater the learning needs of working population in a cost effective manner. Now, education has turned into a tradable commodity from “public good” but the MHRD initiatives may change the situation and student will be more dependent on Government educational institutes. India can no longer remain complacent to the situation and Indian higher education institute need to respond and implement the new e-tools for education. The capability of library as well as Computer Centre of University should be utilized properly to implement this emerging form of education. There is need of collaboration among college and university to at offer different courses together using a single platform.

## References:

- [1] D. Woodhouse, “Globalisation : Implications for Education and for Quality Presentation to the AAIR Conference,” in *AAIR Conference*, 2001, no. September, pp. 1–14.
- [2] IDFC Foundation, “India Infrastructure Report 2012. Private Sector in Education,” 2013.
- [3] U. of S. A. Leask, B. (Flexible Learning Centre, “Transnational Education and Intercultural Learning: Reconstructing the Offshore Teaching Team to Enhance Internationalisation,” in *Proceedings of the Australian Universities Quality Forum 2004*, 2010, p. 6.
- [4] H. Etzkowitz, “The norms of entrepreneurial science: cognitive effects of the new university–industry linkages,” *Research Policy*, vol. 27, no. 8. pp. 823–833, 1998.
- [5] R. Choudaha, “Trends in International Student Mobility (WES Research Reports),” 2012.
- [6] D. Butterfield, S., Chambers, M., Moseley, B., Prebble, T., Uys, P., Woodhouse, “External quality assurance for the virtual institution,” Wellington, New Zealand, 1999.
- [7] S. Chaudhary, “Emerging Issues in Management Education in India,” vol. 1, no. 3, pp. 164–176, 2011.
- [8] G. Menon, “Maintaining Quality of Education in Management Institutes – Reforms Required,” *Procedia - Soc. Behav. Sci.*, vol. 133, pp. 122–129, 2014.
- [9] S. Britain and O. Liber, “A Framework for Pedagogical Evaluation of Virtual Learning Environments,” no. October 1999, p. 46, 1999.
- [10] “UGC website,” 2015. [Online]. Available: <http://www.ugc.ac.in>. [Accessed: 08-Aug-2015].
- [11] “AICTE website,” 2015. [Online]. Available: <http://www.aicte-india.org/>. [Accessed: 10-Aug-2015].
- [12] “Sakshat Website,” 2015. [Online]. Available: <http://www.sakshat.ac.in/>. [Accessed: 08-Aug-2015].