



E-learning Strategies for Imparting LIS Education in India: A Pragmatic Perspective of Faculty Members

**S. M. Imran
Naushad Ali P.M**

Abstract

Purpose: *The authors have designed and developed an e-learning web-portal for Library and Information Science using an open source software 'Joomla'. The prototype has been designed keeping in view the perspective of faculty members from twenty universities across India. The portal envisages a space for teachers and other professionals to express their thoughts on any subject that touches their professional lives. It also involves the uploading of material and content created by and for library professionals in English language.*

Design/methodology/approach: *The investigators examined thoroughly the data received from faculty members for designing and developing of an e-learning system. Various e-learning systems were analyzed, that are currently being used by various universities in India for providing online learning, and an online learning system was designed accordingly that overcome almost all the flaws and tribulations present in those systems. A range of additional options have also been incorporated for improvement in efficiency of the system.*

Findings: *We lack a full-fledged E-learning system in Library and Information Science in India. Here is the need to develop an e-learning system in LIS education after evaluating some of the select well known web-based learning systems, which provides free access to LIS professionals, teachers and students. It is an attempt to subside the shortage of contact class programmes due to the phenomenal growth in the number of students. The study will furthermore be helpful for future researchers and students to foothold their knowledge base and will provide roadmap in guiding them in the areas that impinge their interests.*

Scope: *It is an attempt to provide a better e-learning solution in Library and Information Science discipline whereby the insights gained have been used to improve pedagogical practices in online learning.*

Keywords- *e-learning, open source software, Lislearn, web- portal*

Paper Type: *Technical*

Introduction:

Significant advances in the application of Information and Communication Technologies (ICTs) have become so attached to contemporary educational delivery worldwide that it has virtually become impossible to deliver or receive formal education without the application of such advanced technologies in the processes. The technology has made it possible to develop online virtual lab system to support remote and distance learning courses that require a laboratory component where internet-based control laboratory experiments such as measurement, monitoring and control applications can be accessed remotely.

In line with this fact, higher educational establishments in particular have dramatically transformed their mode of operation. Today, the use of chalk and duster in our seminar rooms and lecture theatres are completely extinct on some campuses. In place of that, we now have interactive whiteboards powered by computers and projectors, learning management systems etc. Electronic learning (E-learning) has emerged and progressed drastically with the development of the internet and information and communication technologies.

E-Learning, which is short for electronic learning, is defined broadly by web-technology professionals as education and training delivered by an instructor or self-paced from a curriculum database stored on the enterprise local area network (**Berry, 2000**). It refers to anything delivered, enabled or mediated by electronic technology for the explicit purpose of learning (**Hicks, 2000**). It offers the possibility of learning from information delivered to us electronically (**Honey, 2001**). It is a web-based, personal learning experience and provides measurable results (**Rich, 2001**). The broadest definition refers to any distance-learning mode other than a corresponding course with printed material. The clearest definition of e-learning is that it refers to the use of internet technologies to deliver a broad array of solutions that enhance knowledge and performance. Solutions are networked, which means instant updating, retrieval, distribution and delivery to computer users at standard Internet technology (**Rosenberg, 2001**).

Electronic learning mediums referred to as e-learning is increasingly becoming the established practice with a wide array of positive outcomes. Over the past decade, e-learning, has moved from being a sheer project on the periphery to a central and integral part of some higher education operations. In fact, for some institutions it has become such an integral part of the institution that their institutional goals are reflected in their strategic plans and policies (**Ellis, Jarkey, Mahony, Peat & Sheely, 2007**). E-Learning means a lot of different things and it is understood differently by players with very different roles. The **E-Content Report (2004)** describes e-learning as “an umbrella term describing any type of learning that depends on or is enhanced by electronic communication using the latest information and communication technologies (ICT).” Knowledge seekers no longer need to wait for information, training or instruction. Expectations of where we learn, when we learn and how we learn have shifted from the formal training and classroom environment to an online, any time, connected network of learning (**Siemens, 2006**).

E-learning can take place in two modes, synchronous and asynchronous:

- (i) **Synchronous e-learning:** It is a computer assisted learning environment, where the instructor and the learners are involved in

course, class or lesson at the same time e.g. web conferencing, audio/video conferencing.

- (ii) **Asynchronous e-learning:** It is a computer assisted learning environment, where the instructor and the learners are in the course, class or lesson at different times (not synchronized) e.g. bulletin boards, blogs, and e-mail list servers.

In higher education, there has been a significant change because ICT has increased the momentum for change in traditional concepts of teaching and learning, as well as prime motivation behind the change in scholarly and professional activities. Library and information science (LIS) academic departments also witnessed such changes and this environment has made it important for LIS Education and Training to strive to improve their quality of programmes, on the one hand to be able to participate in educational networks and develop innovative strategies in planning and administration of LIS education and on the other hand, to produce graduates whose workplace spans the whole world. Thus, it is an inevitable truth that ICT is momentous in the achievement of LIS educational goals/objectives through e-learning and the fulfillment of the primary tasks of LIS schools.

E-learning in India

E-learning, though reached India late of course, but it is being fast accepted in a big way. India perhaps has watched the success of west in adopting e-learning and is trying hard to implement it. Over the past few years, the Ministry of Human Resource Development has been trying to achieve the target of making education accessible to every corner of the country. Still there are many parts of the country, which are in darkness about e-learning (**Malik, 2009**). Due to the growing Indian economy, India has a chance to become heart of e-learning programs. There are many e-learning classes which are coming to India to build and develop e-learning infrastructure. E-learning does not seem to replace the conventional classrooms with black boards but it seems to coexist with the already existing system. This system rather promises to reach far off rural areas in India where education is still a looming darkness. This objective can be achieved by providing PCs at low cost with broadband connection.

The chances of e-learning to strengthen the educational system in India are very high. Furthermore the Government has also come forward undertaking the programs of upgrading the technical quality of the fresh graduates inciting them to go into research and teaching professions. In India, e-learning scenario is still growing and at an experimental stage. Traditional mindsets are changing, with the corporate and business sector leading the way in embracing technology-based learning avenues. Many institutions have started augmenting teacher-led programmes with

content-rich e-learning modules. Government initiatives are not far behind either. The projection for further development of distance e-Learning in India is positive. Several efforts are currently progressing towards providing quality distance learning to more people in urban and rural areas, through the utilization of more effective web resources and practices. The major hindrance to the acceptance of e-learning can be attributed to the Indian mindset that is more inclined to traditional classroom teaching (**Hansen, 2008**). The visibility of e-learning is currently limited to IT and educational CDs, but With PC penetration and overall online accessibility increasing in the country, the future of e-learning looks promising, provided the organization of content and delivery is well-structured.

E-learning suitability for LIS-education

E-learning should be adopted in LIS education for the following reasons:

(a) Management of Change

Like most other institutions libraries are also facing dramatic changes in its dimensions. Particularly, the growing use of ICT in library activities is enforcing many changes. However, the staff working for many years in libraries may not be well-convergent with the ICT. The reason could be the emergence of ICT long after them and their education. The ICT terms like metadata, thesaurus construction, ontology, taxonomy, electronic Dewey, information literacy programmes, open source software for library management, digital library, digital library software, creation and maintenance of institutional repositories, Web 2.0, Library 2.0 technologies and their use in libraries, HTML, XML, knowledge management, web design, copyright implications in the digital library era, etc. might be a bit difficult for them to comprehend. E-learning is the most suitable teaching-learning method for imparting education on such important and useful topics in LIS.

(b) Modular or Cafeteria-based Learning

Most of the undergraduate courses are of three years duration. The postgraduate courses are of two years duration. This 3+2 years pattern of education is common in LIS education also, and does not allow studying topics which are peripheral to the core subject of the degree. As a result, there remain some topics which the potential LIS professional desires to study, but not been able to do so due to the set pattern. E-learning will certainly help to overcome this problem because it allows creating customized learning modules as per the need of the learner.

(c) Increased Expectations from the Employers as well as Users

All potential library employers expect that the LIS professionals must have optimum skills and thereby efficiency in their housekeeping operations. They also expect that the library staff should be able to

provide library services effectively. The users of the library also have similar expectations. They feel that the library staff must answer their reference and referral queries quickly and accurately. One common expectation of both these stakeholders is that the LIS professional of any cadre must have skills to use ICT to provide efficient library services. Thus, the ICT handling skills have become an essential qualification for the LIS professionals. These and other similar expectations of the employers and users of the library can be fulfilled if LIS professionals get an opportunity to learn these skills. Due to time constraint, in-service library professionals may not be able to attend regular LIS courses. In such a situation, the e-learning remains the most viable option for in service LIS professionals.

(d) Multi-skilled Personnel

The present employment market expects that their potential employee must have multiple skills. The skills required by libraries are changing. A study indicates that library staff needs more and newer skills⁵. The workflow is changing. The classroom-based, traditional pattern of LIS education may not allow the library staff to have multiple skills. Through e-learning they can acquire more skills at their own pace and time.

(e) Job-Specific Needs

The traditional LIS education, particularly in India, is a general LIS education in the sense that the learner of this system of education does not get specialized in managing a specific type of library. He even does not get special/depth education for any specific information technology or depth education on designing tools like ontology or a digital library. The above requirements are environment specific, where the LIS professional is working after having the basic LIS education through the traditional methods. E-learning offers the opportunity to provide education, which is job specific and will help LIS professionals to perform to the optimum extent.

(f) Image of the Profession

The e-factor (electronic factor) is an image building factor. As such the provision of e-learning, if made available by the LIS educational institutions, will definitely improve the image of LIS teaching profession.

(g) More Content and Short Duration

In India library science is mostly taught as a postgraduate course (there are some undergraduate and certificate courses also). These courses are of one- and or two-year duration. New subjects, aspects, facets, are continuously emerging in LIS. The quantum of knowledge and skills to be imparted to the upcoming LIS professional are continuously increasing. It is difficult to provide all this knowledge and impart all expected skills in one or two academic duration. So the subjects which could not be taught/ studied during regular courses can be taught through e-learning.

(h) Changing Learning Trends

The changing learning trends are of part-time/home learner. To respond to these trends the LIS education should adopt the e-learning.

E-learning in Indian LIS-education

The scope of LIS education in India has undergone sea changes with the rapid expansion of research and development activities, particularly in the area of Information and Communication Technology (ICT). For qualitative improvement of LIS education in India, there is a need to introduce new courses based on ICTs in different LIS schools to face new challenges. In fact, technology has not only affected operations of library services but also LIS education itself. There is a need to integrate qualitative changes in LIS education to:

- Increase excellence of LIS students to meet the growing demands in e-environment.
- Face challenges due to the growing influence of ICT and its impact on LIS education.
- Suit ever-increasing demands for trained LIS professionals.
- Amplify career opportunities for LIS professionals.
- Use internet-based e-learning courses which are growing day-by-day.
- Adopt and promote e-publishing which is being fast accepted by the users.
- Transform traditional and habitual mode of LIS education in India.

Appropriate utilization of technology for imparting LIS courses can produce better results. It has now become indispensable to consider the utilization of online learning environment in LIS education.

The main objectives for providing LIS education in online environment must be:

- To cover broad perspectives of the core principles of Library and Information Science and its applicability in the new milieu.
- To understand the managerial activities of Library and Information systems in present context.
- To comprehend the principles of knowledge organization, management, retrieval and delivery.
- To develop practical skills in new online virtual environment to countenance the challenges.
- To meet the demands of new digital era.
- To educate learners in the tune of market demands.
- To offer online information skills.

The education and training in LIS in the digital environment shall contribute to accomplish the following:

- Extensive theoretical and practical knowledge of information management and Business.
- Behavioural attitudes and understanding and information needs of individuals and institutions.
- Financial and quantitative methods of analyzing organizational information.
- Problem solving methodology.
- Analytical abilities and critical thinking expertise.
- Research theories and practices.
- Human resource management and quantitative practices and management.
- Competence in information handling.
- Online information skills.
- Expertise in the use of electronic information.
- In depth understanding of information organization, marketing and using information retrieval systems.
- Analytical abilities to access information and to understand the principles of the organization of knowledge.
- Practical experience in information retrieval, indexing, cataloguing and classification of information resources.
- Information management in various professional contexts.

Lislearn: An e-learning portal (www.lislearn.in)

The e-learning market is on a boom world over and is predicted to follow an upward swing with more and more organizations implementing this mode. The ability of e-learning lies in its potential to provide right information in an instance irrespective of the geographical boundaries and barriers. The ICT led initiatives in the form of e-learning support, open courseware, digital repositories are now seen in majority of the open and distance learning systems. We lack a full-fledged e-learning system in library and information science education. Here is the need to develop an e-learning system in LIS education after ascertaining some of the select web-based learning systems, which will provide free access to LIS professionals, teachers and students. Lislearn is one such attempt to overcome the lacking of such a system in library and information science. Lislearn is basically an e-learning portal specifically designed for Library and Information Science professionals and students. It is an initiative to bring together all the library and information science professional community at one single platform, so that they can share their expertise and views.

It is developed in English language and envisages a space for teachers, students and other professionals to express their ideas and share their

thoughts on the subject. It also involves the uploading of content created by and for library professionals. These will be articles on various topics, short articles written by teachers on subjects of their choice including classroom practice, their experiences in library and information science schools and the ideas they have tried to experiment on. Links are provided to websites, gateways, universities, blogs and forums to provide access to valuable and important sources of information to library and information science professionals and students.

Different Sections on the Portal:

The different sections on the portal include the following:

(a) Top Menu

- Home

A homepage, also known as index page or simply home, is the first page when we open any website from a web browser. Homepage is a gateway to vast knowledge resources through a single interface. A home page gives us information about the website, provides links to other web pages, provides login facility if available, and enlist items in the form of menus. Most of the homepages display upcoming events and latest news and updates related to their specific field.

Figure 1



- Download (Content)
 - Pdf
 - Audio
 - Video

This section includes the study materials or courseware such as articles, policy documents, manuals, tools and modules in pdf, audio, video form by experts in the field is made available on the either directly or through links.

- Results
 - B. Lib Results
 - M. Lib Results

- **FAQ**

Frequently asked questions are the listed questions and answers commonly asked in some context pertaining to a particular topic or topics. Rather than an acronym, it is pronounced as initialism. Its pronunciation varies from 'fack', 'faak' 'fax' to 'facts' commonly heard. Depending on the usage, the terms may refer to a single frequently asked question or a group of assembled questions.

This section provides answers to frequently asked questions about e-learning and training, answers about portal usage, course details, admission procedure and other related questions for online delivery of learning and training.

- **Site Map**

A sitemap is a list of web pages in a website accessible to users. It is either in a document form or a webpage from typically organized in hierarchical fashion. There are two popular versions of sitemap; XML sitemap and HTML sitemap. Site map gives information about the modules, menus options and links provided in the portal.

- **Photo Gallery**

This section includes the images and photos of various eminent personalities in library and information science across the world.

- **Contact Us**

This section includes the query form basically designed for those users who wish to know something about the facilities provided regarding online registration, learning and other things.

Figure 2



- **Newsletter**

A newsletter is a regularly distributed publication generally about one main topic that is of interest to the subscribers. General

attributes of newsletters include news and upcoming events of the related organization as well as contact information for general inquiries. Any user can subscribe the newsletter facility by just providing his/her name and e-mail address.

(b) Slider Menus

▪ About Us

- E-Learning Portal
- Vision and Mission
- Objectives and Values

This section includes information about Lislearn, its vision and mission along with the objectives on which it is designed and the values that are strictly to be followed.

▪ Admissions

- Programs Offered
- Entry Requirement
- Fees for All Programs

This section provides information regarding the courses that are offered, the essential requisites for getting admission and the fees for each program to ease up the admission process.

▪ Applicants

- Apply Now
- Study and Examination Rules
- Learning Method
- Brochure and Syllabus

This portion on the portal gives information about the examination rules, the methods of learning that will be followed, brochure and syllabus around which the study will follow.

▪ Faculty Corner

- Alphabetical list of LIS faculty in India

▪ Professional corner

- Professional Development Programs
- Workshops and Training
- Conferences and Seminars
- Symposiums and Debates

▪ Research Corner

- M.Phil in LIS
- Ph. D in LIS
- Theses Awarded in LIS

This section provides news about research (M.Phil/Ph.D), fellowships, conferences and workshops, theses awarded etc. in LIS in India

▪ Useful Links

- SIGIT
- AMU Blog

- LIS Gateway
 - LIS Forum
 - Shodhganga

Figure 3



(c) News and Events

It is the communication of the select information on current events presented to mass audience. This section provides the latest updates of news and events in library and information science profession.

(d) Login Form

The portal provides three types of login options according to the user types. They are listed as under:

- Login for Students
 - Profile Info
 - Calendar of Events
 - Chat
 - Side bar containing links to forums, discussions and activities.
 - Enter the Classroom
- Login for Teachers
 - Profile Info
 - Calendar of Events
 - Chat
 - Side bar containing links to forums, discussions and activities.
 - Deliver Lecture
- Login for Professionals

Users and professionals can register themselves by just filling the user form through which they can become the registered users. Users need to pay to get registered on quarterly, half yearly and yearly basis.

(e) Site Search

A search box in the portal is provided at the top for locating and finding information within the site. Any user can search particular word and phrase according to his/her desire.

LIS Faculty Member's Response

(i) Knowledge of Faculty Members about Computers and Internet

Computer and internet, both are considered as essential components of an e-learning system. The teaching staff must be dexterous and skillful about the use of computers and internet, so that the lessons are prepared and delivered more effectively and efficiently. Evaluation of the knowledge about awareness of computers and internet of various faculty members has been centered as follows:

As ascribed from **Table 1**, most of the respondents held that they have an average knowledge about computers and internet. Rest of the participants (60%) either said that they have an excellent, very good or good knowledge about the use of computers and internet. None of the participants has poor knowledge regarding computers and internet. This means that all the faculty members have ample knowledge about the use of computers and internet which is a very good sign for the implementation of e-learning, its understanding and use in the academic institutions in general and Library and Information Science in particular.

Table 1: Knowledge about Computers and Internet

Level of knowledge	No. of Responses
Excellent	17 (21.25#)
Very Good	18 (22.5#)
Good	13 (16.25#)
Average	32 (40#)
Poor	0 (0#)

Table 2: Awareness and knowledge about E-Learning

Level of awareness	No. of Responses
Excellent	0 (0%)
Very Good	28 (35%)
Good	20 (25%)
Average	32 (40%)
Poor	0 (0%)

(ii) Rate of awareness and knowledge about E-Learning

E-Learning is delivered through various means and the staff members must position, blend and associate those means with traditional form of learning so that it becomes one of the most successful knowledge delivering system. Rate of awareness and the preparedness about the acceptance of e-learning and the use of various e-learning modes vary from person to person, from department to department and from young to old. Those who are not having good hands on e-learning must keep themselves updated and continuously in practice, so that the student, at any point, does not feel it ineffective or inefficiency of teachers.

As attributed from **Table 2**, most of the faculty members (40%) have average knowledge about e-learning and rest of the responses were either good or very good. None of them ascribed that they have excellent or poor knowledge about e-learning. Here is a point of concern about the average knowledge of most of the faculty members which needs to be triumphed over so as to understand all pros and cons of the e-learning system and to effectively deliver as per the student's expectations.

(iii) Implementation of e-learning system in LIS-education in India

The impact of information in all spheres of society coupled with the utilization of IT development for access and utilization of information are dramatically changing the face of the library and information institutions. Due to the changing trends in methods of teaching and ways of delivering, nearly 56 (70%) of the faculty members responded that it is extremely important to implement e-learning system and 24 (30%) found it to be very important to incorporate and implement e-learning systems in Library and Information Science education in India.

All these figures depict that the teaching faculty is ready to accept and implement technology for the ease of delivering and adopt new and modern ways to cope with the shift and makeover of education system in India.

Table 3: Implementation of e-learning system in India

Importance	No. of Responses
Extremely important	56 (70%)
Very important	24 (30%)
Neutral	0 (0%)
Very unimportant	0 (0%)
Extremely unimportant	0 (0%)

Table 4: Category of software for creation of e-learning resources

Software Category	No. of Responses
Open source software	51 (63.75%)
Proprietary/ Commercial	17 (21.25%)
In-house developed	12 (15 %)
Not applicable	0 (0%)

(iv) The category of Softwares to create e-learning resources in LIS education

Software plays an important role in structuring and scheming of an e-learning system. The whole infrastructure is dependent on the type of softwares handling the system. Various softwares are available in the e-learning market and many new open source softwares are coming up due to the rising global software demand and competition. While suggesting the softwares for creation of e-learning resources in LIS education, most of the faculty members mentioned that open source (63.75%) and proprietary softwares (21.25%) are good options to be considered and only 15% responded that in-house developed softwares are more efficient. This depicts the mounting influence of open source softwares and their impact in growing e-learning market.

(v) Infrastructure providing the most versatile solution for delivering online learning

In relation with the type of infrastructure considered necessary for online instruction delivering, 63 (78.75%) faculty members believe that web-site based infrastructure will prove adaptable and viable enough for content delivering, while as 17 (21.25%) consider portal based system will be versatile to deliver online learning.

The reason for the agreement with website-based solution is because of the fact that the instructors are used to surf through web sites more easily without snag than any portal, e-mail system or dial-up based system. But, with the increasing trend of designing portal-based systems, which are considered to be more secure and stable, the shift over is likely to be seen within few years.

Table 5 Infrastructure delivering online learning

Infra-structure	No. of Responses
Web-site based	63 (78.75%)
Portal based	17 (21.25%)
E-mail based	0 (0%)
Dial-up based	0 (0%)

(vi) Most effective means of knowledge transfer in electronic environment

It is established from the data that most of the faculty members (58.75%) find web-based learning the most effective means of knowledge transfer in electronic environment. The advantage of the availability of various resources in web-based environment makes it easier to deliver contents and to refer to various resources within no time and students can have access to huge number of resources for which the links or banners can be provided.

Table 6: Effective means of knowledge transfer in electronic environment

Means	No. of Responses
Classroom learning	0 (0%)
CBT on CD-ROM	17 (21.25%)
Video conferencing	16 (20%)
Web-based learning	47 (58.75%)

CBT=computer-based training

(vi) Features that must be present in an e-learning system

The main features in an e-learning system mainly consist of software related features, communication preferences, content and course related features which are correlated and dependent on each other for the overall success of the system.

Table 7 shows that the course and content related features matter the most for teachers because their ultimate aim is to provide learning with more effective and simple ways. The software and communication related features need to be investigated thoroughly by course developers and that is why the faculty members didn't stress more on those issues. User-friendly menus, feedback and downloadable audio/ video lectures were the most accented features that need to be present in an e-learning system.

Table 7: Features in an e-learning system

Features	No. of Responses
User friendly Menus	68 (85%)
Communication Tools	34 (42.5%)
Additional Enrichment	21 (26.25%)
Message Boards	47 (58.75%)
Navigation Options	23 (28.75%)
Tools for posting media online	61 (76.25%)
Online chats/Social networking	13 (16.25%)
Ask a Teacher	52 (65%)
Tools for threaded discussions	16 (20%)
Detailed Syllabus	61 (76.25%)
Interactive learning activities	23 (28.75%)
Status reports of student's progress	13 (16.25%)
Study guidelines	42 (52.5%)
Downloadable Audio/Video lectures	73 (91.25%)
Course events and forums	63 (78.75%)
Feedback Options	75 (93.75%)

Note: Multiple selections were allowed

Conclusion

In present age, information needs are changing and demands of this profession are also varying. The change is enforced by many forces such as technology, demographic features, economic characters, etc. E-learning is now the global scenario and we must avoid confrontation. The LIS education is responding to these changes by making appropriate changes in its teaching-learning strategies. Adoption of e-learning in LIS is robust indicator of this response. As a developing country like India, it is arduous to design a new courses and new e-learning LIS-education. Lots of issues and challenges are involved with this task but as soon as it is put forward, it will surmount all those problems. The Indian LIS education too, is slowly but steadily making progress in this direction. Availability of appropriate and adequate infrastructure will add momentum to LIS e-learning in India. The establishment of the Indian Training and Education Network for Development (INTEND) by the Ministry of Human Resource Development, Government of India is a good approach of the government. The initiatives taken up by IGNOU are a good signal in the country. Web-based or electronic mode of teaching has become an important component of LIS Education in India. The use of new ICT by the Indian LIS Schools should be encouraged to produce professionals to manage knowledge resources in the electronic learning environment.

References

Berry, J. (2000). Corporate Training-The e-learning center-companies are using metrics to justify E-learning's impact on strategic business goals. *Internet Week*, 836, 61.

- Ellis, R. A., Jarkey, N., Mahony, M. J., Peat, M., & Sheely, S. (2007). Managing quality improvement of eLearning in a large, campus-based university. *Quality Assurance in Education*, 15(1), 9-23.
- Hansen, H. B. (2008). INDIA: E-Learning has Potential to Manage Teacher Shortage, *OWL Institute*. Retrieved from <http://owli.org/oer/node/2469>
- Hicks, S. (2000). Evaluating e-learning. *Training and Development*, 54(12), 75-76.
- Honey, P. (2001). E-learning: A performance appraisal and some suggestions for improvement. *The learning organization*, 8(5), 200-202.
- Malik, S. (2009). E-learning in India: the electronic way of learning. Retrieved from <http://www.merineews.com/article/e-learning-in-india-the-electronic-way-to-learning/15764276.shtml>
- Rich, D. (2001). A new way to develop employees. *Electronic Business*, 27(8), 8-9.
- Rosenberg, M. J. (2001). *E-learning strategies for delivering knowledge in the digital age* (pp. 28-29). New York: McGraw-Hill.
- Siemens, G. (2006). Connectivism: A learning theory for the digital age. *International Journal of Instructional Technology and Distance Learning*, 2 (1), 8.

Corresponding Author

Sheikh Mohd Imran can be contacted at:
smimran@kashmiruniversity.ac.in

Author Biography

Sheikh Mohd Imran is Assistant Librarian at Allama Iqbal Library, University of Kashmir, India. He has to his credit a no. of research papers published in journal of International and national repute. Besides, he has presented a no. of papers in national and international conferences

Dr. Naushad Ali P.M. is Associate Professor in the Department of Library and Information Science, Aligarh Muslim University, India. His areas of interest includes Information Management, Knowledge Management and IT Application in Libraries & Information Centres. He has published over 30 research articles in various International and National journals and conference proceedings. He has been awarded one month visiting fellowship under Indo-France Cultural Exchange Program. Some of his research articles have been appeared in the international journals like The Electronic Library, Collection Building, SRELS Journal of Information Management etc. He is the editor-in-Chief of the International Journal, the Journal of Knowledge and Communication Management published by Indian Journals.com.