Professional Development and Lifelong Learning Opportunities for Library & Information Science Professionals through E-learning Portals

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ABSTRACT

The objective of this paper is to sensitize professional associations, policy makers of various governments, university authorities and Library and Information Science (LIS) professionals at large, on the need to create a professional development program and a lifelong learning opportunity through e-learning portals especially in the developing countries. It also tries to explain the need for such an opportunity for learning, at a pace and time that is convenient to the learners. It portrays the probable role of professional associations, universities and government departments in fostering a rich and productive online learning environment and also tries to give a perspective of the LIS professionals who migrate to different parts of the world or within their country to work and the need for them to learn and develop professionally. This paper is an empirical study of the professional development needs and the difficulties in getting one by an expatriate Indian author who took up a job in the Middle East. It is inspired by the "online learning" activities of professional associations such as the American Library Association (ALA) and the American Society for Information Science & Technology (ASIS&T). An attempt is made to identify professional development programs that can be rendered & accessed through e-learning portals and also attempts to suggest a model design for the delivery of Professional Development by all the stake holders. The learning outcome of this paper would be a strong understanding of the need to develop an online professional development program through e-learning portals by various LIS schools, professional associations and authorities from the education departments of different countries especially the developing countries.

Keywords: Professional Development; Online learning; E-learning; E-learning portal; Model.

INTRODUCTION

Professional development (PD) is a process by which new technical skills and knowledge are acquired and existing skills toned for both lifelong personal development as well as career advancement. Information, knowledge and skills are probably the three most important personal commodities that an individual acquire (Barker, 2005) in a lifetime. Besides, there is intense competition in this world and acquiring new knowledge and skills is the only way to compete and survive. Professional development for librarians is highly imperative and is very much driven by the impact of Information and Communication Technologies (ICT) in the libraries. The current changes in the way information/knowledge is acquired, stored and disseminated are increasingly placing pressure on the Library professional's ability to deal with the impact of ICT, both technologically as well as pedagogically. There is a constant need to upgrade their skills and keep them abreast with the changes occurring in the field and to continuously acquire new knowledge & skills that has not been met by either formal education or on-the-job-training. There is, therefore, an ever growing need to check that the knowledge base and skill set that we have are both relevant to the "time frame" in which we exist and are appropriate to the jobs and tasks that we have to perform (Barker, 2005). It is therefore important for us to understand the need to be able to minimize the time we take to acquire this knowledge and the time that we take to perform these tasks.

Unfortunately, professional development opportunities for library professionals in the developing countries are very limited and are mostly mandatory only to certain categories of employment; for example, in India, professional development is mandatory only to those who work in the universities or colleges that are run or aided by the government. Career advancement is directly linked to professional development activity only in these educational institutions and is not mandatory for professionals in private colleges, institutions or organizations. Hundreds of thousands of professionals relocate within or out of their countries in search of *greener pastures* and are both time-constrained and price-sensitive. Unfortunately, there is a dearth of opportunity and motivation for those people to take-up professional development activities. Professional development opportunities through web based e-learning

portals can actually bridge the gap between those who get the opportunity to take PD programs and those in developing countries, who do not get this opportunity.

E-LEARNING – WHAT IS IT?

E-learning is a process of teaching and learning, where the teacher/instructor and the learner are demographically apart from each other and all teaching/learning activities take place online. This process is essentially done by the application of Information and Communication Technology (ICT) for the delivery of the educational services that not only connects them virtually but also provides them access to a wide range of resources. It represents a conscious learning process where the objectives and domains are clearly defined, and the focus is set to individual online learner's perspectives and demands (Xu, D and Wang, H, 2006).

E-learning products can range from simple packages of instructional contents in electronic format to the use of familiar software programs (such as E-mail) for specific instructional purposes, to quite complex, purpose-built, enterprise-wide software applications that deliver courses and track learner activity (Klein, D and Ware, M 2003). However, e-learning for the last 30 years has undergone several technological changes with respect to the changing computer-based teaching and learning process and are currently delivered through internet based web technologies which are otherwise referred to as online learning or web based distance learning.

There are many rationales for justifying the need for online learning, especially for professional development, that ranges from easy and increase in access by all concerned, improved quality in the contents delivered and lower costs. However, the most important aspect of professional development through e-learning is the fact that individuals can take-up the program at anytime, from anywhere and have the ability to undertake and complete the program on a self-paced timely fashion.

Why E-learning Portals?

While having an individual and independent website is common today with almost all of the stakeholders viz. the education departments, universities and professional associations who are promoting their ideologies, it is much easier to provide a web-based PD activity through the stakeholder's website. However, the need for an e-portal is imminent because Portals organize information and courses from various locations on a single website. It is easier for different universities or associations to offer PD activities from one portal that, in turn, will make it much easier for the learners and trainers to meet and interact online.

Types of E-learning courses

Donald Klein and Mark Ware (2003) in their article "*E-learning: new opportunities in continuing professional development",* identify three types of courses by which e-learning professional development program can be delivered;

Text bases courses

Text-based courses are built primarily around text based contents, usually containing internal hyperlinks to glossaries and other materials.

Animated courses

Animated courses are built around moving illustrations or diagrams coupled with an audio voiceover explaining the diagrams.
Video-based courses

Video-based courses are built around a series of full-motion video clips, either showing a 'talking head' of a lecturer or showing an actual dramatized scene using actors.(Klein and Ware, 2003).

All of these three types can be delivered in a CD or DVD as a package of course material where the students learn at their own location, pace and time and respond to the instructional needs through e-mails and discussion forums. However, a fourth type of e-learning course has been making a big impact around the world; is based on the World Wide Web (www) or the web-based learning and is delivered through internet.

Web-based courses

Web-based courses encompass the above three formats. It is often called as online-learning because it includes online course content, live lectures (video streaming) discussion forums, online document submission, assessment, evaluation and feedback. One of the advantages of delivering web-based courses is that web pages can contain hyperlinks to libraries or other related resources such as online databases and journals, enabling the availability of vast amount of resources for the learners to enrich their knowledge and skills.

Skills and Competency requirements

The whole idea of this e-learning portal is to provide an opportunity for professional development and enhance knowledge of the latest trends. It is important to note that all participants need to have a minimum graduate degree in Library and Information Science or in a related area and must also be working in a library or in a related center. They should have adequate skills in using computers, browsing internet and be fluent in the use of Microsoft office products such as MS-Word.

Features of a Web-based course

A typical web-based professional development course would integrate all, but not limited to:

- Details of courses offered, curriculum map and lesson plans.
- Electronic bulletin board for announcements and instructions.
- Time duration, timetable and credit hours for completion of the course.
- Learning materials such as slides, audio/video/animated or document files.
- Discussion forums or chat rooms for interactive learning with trainers and peers.
- Statistical tools to manage students, their records and attendance.
- Document submission forms to submit assignments, reports, projects and emails.
- Hyperlinks to online resources and databases.
- Assessment and Evaluation.
- Feedback.

Factors affecting web-based courses:

The effectiveness of the web-based e-learning is affected by three major factors;

i. **The human factor**: includes trainers/instructors and learners.
ii. **The technology factor:** includes technology for preparation & delivery of contents, Connectivity between the trainers and learners.
iii. **The design factor**: includes content management, assessment and evaluation, feedback.
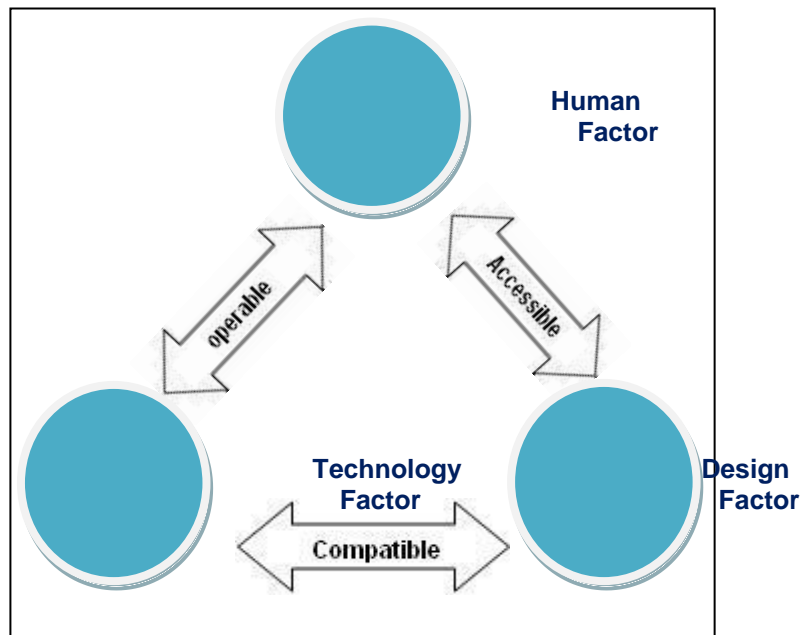
Figure 1: Factors affecting web-based e-learning

Professional development through web-based e-learning portals are interactive in nature and allow the instructor and learner either individual or a cohort to interact with each other simultaneously or at different time gaps by picking up the thread of discussion. However, all the three above-mentioned factors affect the efficiency and effectiveness of the web-based e-learning environment and determine the success of the program.

Each factor has to complement the other in order to have a perfect teaching-learning environment. Trainers and learners must have basic computer skills and be comfortable with the format and display of the course materials and be able to have seamless access to the course contents. The technology used for access and design have to be compatible with each other so that the learners have a rich and rewarding learning experience.

GOVERNMENT, ACADEMIA AND PROFESSIONAL BODIES – WHAT ARE THEIR STAKES?

Universities and professional associations in many countries, especially the West, already have a successful web-based professional development program which has been running for many years now. A study of the literature suggests that many researchers have undertaken projects to determine the efficiency of these programs. However, there is little evidence to show that any such effort has been made in the developing countries especially, in the South and East of Asia. In order to give equal opportunities to these library professionals to upgrade their knowledge and skills, governments (federal or provincial ministries), universities and professional associations have a huge role to play.

Governments - Education Department

Governments should play the role of a 'Patron' that recognizes needs and formulates policies to legalize the web-based professional development programs and also provide the much needed budgetary and infrastructural facilities. Regulatory authorities under the Education Department (such as the University Grants Commission, in India) should play the role of hosting and promoting the e-learning portals in their web server(s), identifying experts in diverse fields from different universities and urging them onboard to design and run the courses. The role of the governments may include, but not be limited to:

- ***Recognize and Accredit Online Professional Development (OPD) –*** The government has to first recognize online professional development as an alternative to face-to-face PD programs and initiate steps to provide quality learning in terms of curriculum, content and relativity and to frame policies and procedures to accredit them.
- ***Capacity building*** - Selecting and training OPD specialist to build curriculum, develop and run successful online programs. It must identify experts in technology and design of e-portals and ensure a pool of these technology experts at the regional levels too.
- ***Building Strong Regional Teams*** – The government should also identify and build regional teams spread across the country with the help of universities and professional associations and societies in that country. It is important that these regional teams coordinate with each other and build a cohesive local OPD specialist team.
- ***Publicizes the Online Professional Development –*** Appropriate publicity must be utilized across the country to all professionals defining the OPD program and its benefits by involving all stakeholder viz. professional associations and societies. Incentives, career advancement and other benefits could be linked to the professional development activity even by private institutions and organizations.
- ***Provide appropriate infrastructure –*** Provide reliable access technologies and support at federal and regional levels to foster a rich and interactive online learning community. Link universities and other educational institutions through an existing network or develop one and create a "System", by which professionals' portfolios, performance appraisals and progress can be tracked.

Academia: The university or institutes of higher education identified by the government or the regulatory authority will identify experts in different fields and contribute to the OPD specialist pool. These experts will designs and conduct the web-based online professional development program thorough e-learning portals. Academia will have the ultimate responsibility to design and administer the OPD programs through these portals.

- ***Create Portfolios of Professionals –*** Academia in association with professional associations should take appropriate steps to encourage creation of portfolios of professionals at all levels and institute a database. All PD activities must be automatically linked with the professional's portfolios.

Professional Associations: Professional associations and societies in every country have the most important role: that of promoting and motivating individuals to avail themselves the opportunities and develop professionally. Professional bodies might also monitor the professional competencies of its members and constantly encourage them by recognizing their achievements in their publications and meetings. Professional bodies will also have to play the role of an advisor to academia in shaping the course and contents of the PD programs by getting constant feedback and needs-assessments from its members. They can also assist academia in creating and maintaining portfolios of its members.

MODEL E-LEARNING PROFESSIONAL DEVELOPMENT PROGRAM

The success of any PD activity will largely depend on the ability of the members who take-up the program in interacting with the trainer and peers in the classroom discussions and debates. Virtual classrooms in the web-based PD programs can also give members the opportunity to interact, discuss and debate with each other and the trainer. However, the pleasure of meeting and greeting peers and the trainers physically and getting to know them is not possible and that could be a hurdle for some learners. Integrating online professional development activity with a face-to-face meeting could be one way of successfully overcoming this deficiency.

Integrate Online Professional Development with face-to-face meeting

One of the most important keys to a successful online program is understanding how and when to incorporate a face-to-face meeting (Treacy, B et al., 2002). One or more planned face-to-face meetings can significantly impact and strengthen the online learning experience. This meeting could take place at the beginning of the program as a 'kick-starter' for the PD program, where the trainer and the learners meet and get to know one another and learn the nuances of online learning. This meeting could also help to:

- Orient the learners about the online course environment.
- Provide hands on experience in accessing some or all of the options in the portal.
- Build a strong rapport with trainers and peer learners.
- Answer questions from the learners about teaching and learning online.

Based on the needs assessment more meeting could be organized either midterm or at the end of the program.

CHALLENGES IN COURSE DESIGN AND CONTENT MANAGEMENT

Course Design and Content Management is a daunting task and a continuous process that requires as much attention as administering one. The first and foremost step to be taken before designing a web-based e-learning program is to identify the target group of learners and their needs and decide whether the learners would be part of a learning group or individual learners. This can be done by registering the learners to the courses of their choice and providing access to the portal through user name and password.

Some courses have to be completed in isolation by the learners without much assistance from the trainer; such courses will be completed by learners at their own pace. Other courses must be designed to be as much interactive as possible where teaching and learning takes place in concert and learners should have a start and end date for the courses. Finally, there have to be blended courses that would include a few face-to-face interactions and also online interactions as part of the teaching & learning activity and will have specific start and end date for completion. Boyer (1999) in his article *Courses without classrooms*, describes the learners attribute towards learning, as learners retain only 10% of what they read, 30% of what they see, 50% of what they hear and 90% of what they act on. Designers of e-portals should take into account this fact and make the portal as interactive as possible. The level of online interaction the learners have is determined by the designed amount of interactivity and the contents offered. Some of the challenges in the design and management of the e-portals are discussed below.

Course Design: Course design includes the ability to disseminate and share learning materials and modules across a spectrum of learners, the ability to modify, respond and keep track of the changes on the documents that learners use and the ability to oversee the performance of the learners online. It also provides the trainers the ability to communicate with and monitor the learners either as a group or individuals, electronically administer exams and to assess and evaluate them.

Content Management: Content Management covers the pedagogical and technological aspects of the courses in the web-based e-learning environment. There has to be a rich and adequate amount of teaching/learning resources for the trainers and learners to administer and take up the courses. The portal has to provide timely and meaningful information to the learners by identifying their needs and requirements and by collecting feedback and pertinent information from the existing and potential learners.

Operations and Administration: This includes the ability to control the administrative and operational aspects of the portals as tools of professional development and lifelong learning. It also deals with end-user (trainer-learner) management, administering access rights and controls to each of them over the portal and other related issues. It also deals with the most important aspect of administration – the ability of the system to generate reports that confirm that the PD

activity has occurred, to generate transcripts or a report of content taken, credits earned, the completion of the course etc.,

Assessment and Evaluation: Assessment and evaluation is a key component of any learning activity. The ability of the trainer to assess and evaluate learners in a face-to-face classroom is obviously greater compared to web-based assessment and evaluation. However, the system should be designed in such a way that formative assessments (supporting learning by reinforcing concepts learned) and summative assessments (examination) are possible based on continuous assessment of activities of the learner's contribution online. Assessments may involve multiple choice questions, drag and drop exercises and also simulated real-life situations where learners can apply concepts they have learned to find solutions.

Professional development and lifelong learning through e-learning portals offer enormous opportunities for learning and gaining vast amounts of knowledge and technical skills, but in the end it all boils down to the question of whether or not these portals are effective and efficient in doing their job. Designers should also keep the design cycle in mind before designing an e-portal for web-based learning.
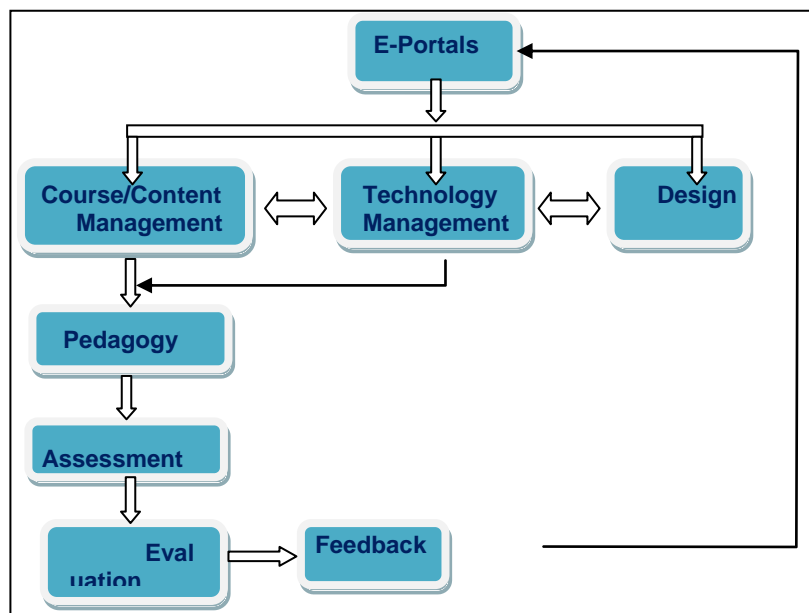

Figure 2: Design Cycle of E- learning portals

ADVANTAGES AND DISADVANTAGES OF WEB-BASED LEARNING

Web based e-learning has its own advantages and disadvantages. According to McKimm, J et al. 2003 and Kumaresan, S.C 2008 these are some of the advantages and disadvantages.

Advantages:

- Ability to pursue a PD program from anywhere and at anytime without travelling, or taking time off from work.
- Self-paced learning and training.
- Ability to find vast resources through hyperlinks in different formats.
- Efficiency and consistency in the delivery of course and content.
- Reduced costs in terms of travel and lodging on the part of the trainer and learners.
- Expert knowledge can be communicated, captured and stored using effective Knowledge Management tools.
- Learners can receive quick feedback and evaluation of their performance.
- Use of multimedia-rich resources for teaching and learning.
- A convenient way for learners to submit (upload) assignments, reports and projects from remote locations.

- Time-saving in terms of content delivery, assessments, evaluation and feedback.
- Portals could generate additional revenue by providing space for advertisements besides registration fees from the learners.

Disadvantage:

- Non availability of infrastructure in rural areas of developing countries.
- Initial investment in technology and infrastructure.
- Authenticity of learner's work cannot be verified in online assessments.
- Difficulty in accessing images, videos with respect to the available technology.
- Security can be a serious issue.
- Reduced social and cultural interaction with peers and trainers.

CONCLUSION

Although there are numerous advantages to delivering professional development through e-portals, the most important factor viz. classroom learning, where peers meet each other and the instructor, will definitely be a missing link in the whole system. However, this could be used as an alternative to traditional teacher-controlled methods of education for those who want to take up professional development activities and are not in a position to do so for various reasons. All the stakeholders in this system have to take a stand and do everything possible within their means towards developing this alternative, technology-enhanced learning system to give the less fortunate professionals an opportunity for professional development and lifelong learning so that they may grow and keep themselves professionally afloat.

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