ROLE OF LIBRARIES AND LIS PROFESSIONALS ON OPEN EDUCATIONAL RESOURCES IN MODERN INFORMATION ERA

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ABSTRACT

In modern information era information technologies are rapidly change in all aspects. Now the digital resources are readily available from many sources and those contents are available by the teachers and learners through the internet. For that reason a movement aims to encourage and enable sharing content freely called Open Educational Resources. There are a number of libraries and library consortiums that have taken the forefoot in producing resources for all. Librarians, whose ranks are filled with specialists and experts in a variety of fields, can be contributors to the open educational commons by creating OERs themselves. India is becoming an active player not only in the open source software movement, but also in the Open Access (OA) movement and also the movement of Open Educational Resources. By this OERs and open educational movement the resourceful librarian with vision, who stays abreast and remains open to the changing trends in the educational world, who is knowledgeable of available resources both print and online, and who also gains experience with changing technologies, becomes an essential partner in the collaborative educational efforts of both instructor and student.

Key Words: Open Educational Resources, Open Access, Open Educational Movement.

1. Introduction:

As information technologies have become more readily available, those involved in education have found that a vast number of digital resources are available from many sources. Many teachers are using the Internet in their courses and thus the amount of course content available in digital format is growing. Yet, until recently, much of this material was

locked up behind passwords within proprietary systems. For that reason a movement aims to break down such barriers and to encourage and enable sharing content freely called Open Educational Resources.

The term Open Educational Resources (OER) has been introduced and promoted in the context of UNESCO's aim to provide free access to educational resources on a global scale. The term was first adopted by UNESCO in 2002 in the final report of the Forum on the Impact of Open Courseware for Higher Education in Developing Countries, to refer to "the open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a (community of users for non-commercial purposes". (UNESCO 2002)

Today the digital environment offers many opportunities for a creative and collaborative engagement of learners with digital content, tools and services in the learning process ("e-learning 2.0" instead of "click & learn"). One such opportunity is the collaborative creation, evaluation and sharing of open content and learning experiences. A new generation of easy-to-use Web-based tools and services, e.g. Wikis, Weblogs, platforms for content sharing, RSS based content provision, makes this easier than ever before.

There are a number of libraries and library consortiums that have taken the forefoot in producing resources for all. Librarians, whose ranks are filled with specialists and experts in a variety of fields, can be contributors to the open educational commons by creating OERs themselves.

2. Objective of the Study:

i.   To define Open Educational Resources and its movement in LIS field,

ii.   To depict the role of LIS professionals with OERs.

iii.   To depict the role of libraries with OERs in future,

iv.   To describe the services provided by the LIS professionals in connection of OERs,

v.   To find out the lacuna of LIS professional to take initiatives by the libraries in that aspects,

vi.   To illustrate the OERs movement in India

3. Importance of the Study:

i.   This study helps to grasp the role of future library as well as the LIS professionals in the context of OERs.

ii.   This will help to find out the barrier of information and problem solving role of library professionals.

iii.   The study will help to comparison between movement of OERs in India and other countries.

iv.   Modify the role of LIS professionals in this aspect.

So that future Library Professionals can serve the users in a proper way with the help of OERs.

4. Definitions of OERs:

The term open educational resources first came into use at a conference hosted by UNESCO in 2002, defined as "the open provision of educational resources, enabled by information and communication technologies, for consultation, use and adaptation by a community of users for noncommercial purposes" (Johnstone, 2005). The definition of OER now most often used is: "open educational resources are digitized materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research".

4.1. Openness

"Open" has become somewhat of a buzz word which currently has positive associations for most people. Tuomi (2006) distinguishes three quite independent areas where openness makes a difference. One has to do with technical characteristics, one with social characteristics, and the third with the nature of the resource itself.

Openness in the social domain is fundamentally motivated by the expected social benefits and by ethical considerations related to freedom to use, contribute and share. Openness in the technical domain, in contrast, is characterized by technical interoperability and functionality. Open standards are important since they make it possible for different software applications to operate together. In the social domain, different levels of openness can be distinguished. The most fundamental kind of openness involves access and accessibility. [1]

4.2. Educational

The term "educational" also needs to be clarified. Does it mean that only materials produced for use in formal educational settings should be included? The purpose of using OER in education is of course to enhance learning, notably a kind of learning that enables the development of both individual and social capabilities for understanding and acting.

4.3. Resources

The dictionary definition of "resource" is a stock or supply of materials or assets that can be drawn on in order to function effectively.

It is now possible to offer the following clarification of the definition of OER as "digitized materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research". Such resources are accumulated assets that can be enjoyed without restricting the possibilities of others to enjoy them. This means that they should be non - rival (public goods), or that the value of the resource should be enlarged when used (open fountain of goods). Furthermore, to be "open" means that the resources either provide non - discriminatory access to the resource or can also be contributed to and shared by anyone. Finally it should be mentioned that OER is still in its infancy, and practices and technologies are rapidly changing. It is therefore impossible to give the concept a definitive definition. In the coming years, it will be necessary to return to the question of how OER should be defined.

5.   Libraries and Open Educational Resources:

5.1. OER and Life-long Learning

The librarian who has embraced and understand Open thinking characteristic of the Open movement will recognise among the various learning cultures those educators, students or patrons who have a marked desire to pursue and achieve mastery of the many aspects of information available to them. Lynch, C. 2008 refers to the difference between learning and gaining an education: "access to education is not the same thing as access to information, although the two are intimately related and might often reasonably be viewed as two endpoints of a continuum". He continues by recognizing that while libraries contain or have access to inexhaustible information the library is uniquely different from the classroom in so far as learning is concerned. This begs the question of just how learning takes place. Does learning happen because an instructor organizes materials to present, even using a variety of methods, maybe even utilizing the latest in technology, applying requirements and deadlines for students to meet? Lynch raises further questions of how learning can be acquired in an

age where there is so much information to access. He states that while social interaction is an essential part of learning where technology plays a key part, the challenge to evaluate information has become even more complex. He recognizes that ongoing education is now a part of our culture. We can expect the need to incorporate ongoing education, often termed as becoming a life-long learner, in every area of expertise and aspect of living in today's world (Lynch, C. p. 208). The advent of OER presents just one piece of the Open movement that gives direction. The Librarian and OER to our response to the challenge to create and become life-long learners. Lynch sees increasing involvement of teachers, educators, and scholars who "will likely form the nexus of new teaching communities that want to exploit these information resources in their own teaching. Similarly, those authoring Open Education Resources will likely offer to manage and moderate teaching communities forming around these resources." Lynch (sec. "Meeting the Needs of Learners"). The need for increased modules of learning raises more questions about the necessity of certification and degrees to give evidence of learning. [8], [7]

5.2. Libraries doing with OERs:

There are a number of libraries and library consortiums that have taken the forefoot in producing resources for all. One example of an institutional level initiative is the Harvard Open Collections Program. This program is part of the Harvard Libraries and Museums.

Unlike some other library initiatives, the library's materials themselves are the key feature of this open collection. While library professionals might look to this example as a model for their own future open collections, it is more for the library user than the librarian.

The potential of all the initiatives lies in their existence. Each has good standing in their own communities for providing their users with what they are searching for. But what if we could produce something that links all of these types of resources together, a broadened and enhanced "Open Courseware Search" for libraries? A collective of such magnitude would contain all the best aspects: primary and useful resources, a thorough search engine, and guidance for the creation, alteration, and production of materials.

The ideal library OER would be a universal, over arching initiative system. Published as a website, it would be produced by an organization similar to the International Federation of Library Associations and Institutions (IFLA), or a brand new organization charged with forming this system. This organization would be in charge of the planning and publicizing of this initiative, in order to acquire initial interest and eventual membership.

5.3. How OERs working in Library:

The cross-searching system that would benefit the institutional academic initiatives and repositories, this would actually be a combined web initiative. Libraries would come forth as member organizations, and produce and present materials to be placed into the initiative. As a universal system, there would be categories for public libraries, academic libraries, archives, special libraries, law libraries, medical libraries, etc. Within these categories, there would also be categories for instructional and educational materials, library-specific materials, pre-published papers, and materials regarding special events or occurrences in libraries. With this more general categorization system, a user would be able to search for a subject like "online searching guides" and it would produce the results for all sorts of online searching guides in all sorts of libraries. This type of cross-searching would allow for a wider variety of results, as well as results that might not have been considered in a different search. [8], [9]

Utilizing open source technology, this initiative would be the work of volunteers and the institutions taking part in producing the material. Ideally, there would be a data entry/query template that would work for new entries and submissions. A simple system determining the type of library, the type of material, audience, and age level would allow for general categorization. As more materials are added, more categorization would be necessary.

5.4. OERs user in Library:

Both like and unlike general OERs, this system would be used on the instructor's side of things, instead of the student's. Classroom instructors and the students in the community of the particular repository or initiative almost equally use the materials in OER initiatives or repositories. This library initiative system would be available to users, as long as they are in search of materials produced by their own library or library system.

There would still be a required free registration for submission of materials into either the database or onto the review and collaboration forum. But searching materials and browsing the initiative site in its entirety would not be blocked to unregistered users. On the other hand, an additional page asking for login and contact information would allow for an easy management of user numbers and ease of navigation once within the site. It would, possibly, deter potential users; however, if one does not wish to take the short amount of time to create a username and password, providing an existing e-mail address, they probably do not have a strong desire to utilize the initiative.

6. OER opportunities for LIS professionals:

Librarians, whose ranks are filled with specialists and experts in a variety of fields, can be contributors to the open educational commons by creating OERs themselves. A librarian need not write an entire textbook to contribute in this way. Librarians routinely teach information literacy sessions and may have developed materials for such teaching. As OERs, these materials have the potential to be invaluable to professors and students far beyond a creator's own institution. They may well provide the side benefit of helping us make progress on the road to true course-integrated instruction.

Today's librarian stands in a unique position to capitalize on the philosophy of librarianship defined by key historic elements. To begin to define librarianship is in itself a challenge. Joseph Nitecki (1993), who coined the term "metalibrarianship", writes recently there has been a noticeable shift of interest away from the acquisition of data, toward access to them, and from the preservation of recorded messages to their utilization. Yet the basic role of librarians as mediators, linking the sources of information with their recipients, although not changed, is not yet fully understood by many librarians and most library patrons. He describes the evolving nature of librarianship and refers to the nearly vanished stereotype of the librarian as the time "when librarians struggled for a professional self-identity, by combating a stereotype of a librarian presented as a glorified clerk, dedicated only to the physical processing of books, and encouraging their reading in a perfectly quiet library." Nazli, A. (2008) writes on the importance of developing philosophical thinking, stating that librarians need a clear sense of purpose. "There is a close relationship between librarians" realization of PT [philosophical thinking] and their credibility in society. Librarians can build their reputation in society by making use of theory, and with the self-confidence the gain from knowing what role they play and why. The librarian who is able to employ philosophical thinking to the understanding of the role information plays in gaining and utilizing knowledge will bring new energy and vision to the library as place and will recognize the contributions of the Open movement. We should be aware that professorial faculty at our institutions may author OERs, as well. They might do so on their own or with the assistance of a specialized center (e.g., BYU's Center for Teaching and Learning) charged with assisting faculty with their teaching responsibilities, including helping them create appropriate instructional materials. Librarians can take the lead in educating the instructional designers who work in these centers about the existence and creation of OERs. [5], [6]

Librarians who teach can make quality OERs a part of their instruction. Many librarians teach as part of information literacy instruction programs; some teach full courses; others do both. Some librarians teach on their own; others are part of a teaching team—either with other librarians or with professorial faculty. Regardless of circumstance, teaching librarians can adopt, or suggest the adoption of, an OER textbook for their courses. If no suitable text exists (because of either subject treatment or excessive price), they can, as already suggested, write or mix their own textbook. Or if the decision is made to use a commercially published textbook, teaching librarians can suggest the use of relevant OER modules or lessons where these would be appropriate.

OERs join the other opens—Open Access, Open Source, Open Data, Open Science—in creating a more robust and useful open commons. They hold the promise of making education at all levels, but especially higher education, more affordable. OERs are more in tune with the movement to greater accountability (i.e., providing a better return on investment), which is definitely a trend in higher ed. Librarians can help by contributing their own OERs to the commons; screening for, indexing, and archiving quality OERs; using OERs in their own teaching; and participating in discussions leading toward responsible intellectual property policies and useful standards.

7. Lacuna of Libraries and LIS professionals in OERs:

Creative Commons is pleased to announce the launch of a new division focused on education: **ccLearn**. **ccLearn** is dedicated to realizing the full potential of the Internet to support open learning and open educational resources (OER). Their mission is to minimize barriers to sharing and reuse of educational materials — legal barriers, technical barriers, and social barriers. The Internet is supporting open learning and open educational resources (OER).

With legal barriers, it advocate for licensing of educational materials under interoperable terms, such as those provided by Creative Commons Licenses that allow unhampered modification, remixing, and redistribution. It also educates teachers, learners, and policy makers about copyright and fair-use issues pertaining to education.

- With technical barriers, it promotes interoperability standards and tools to facilitate remixing and reuse.
- With social barriers, it encourages teachers and learners to re-use educational materials available on the Web, and to build on each other's contributions.

ccLearn will be in transition over the remainder of the summer, 2007. ccLearn is generously supported by The William and Flora Hewlett Foundation and is working closely with members of the Foundation's Open Educational Resources Program. This is an international project, and we will be working with open educational sites and resources from around the world. [9]

8. The OERs movement in India:

As India marches rapidly towards an ambitious agenda of economic and social advancement, one of the greatest challenges it faces is to provide extensive access to quality higher education opportunities. An evident and expanding Open Education Resources movement offers great promise for meeting this challenge through initiatives that make quality tools, content and practice widely available. Accordingly, India's National Knowledge Commission launched a process to explore and leverage these initiatives for adoption and adaptation, as well as to serve as a model for further indigenous efforts. In December 2005, the commission decided to explore opportunities with open education materials in order to understand the implications for extending access and enhancing quality for higher education in India. [11] The growing capabilities of the Internet, coupled with OER, offer unprecedented opportunities for significantly broadening access to quality educational resources for different sectors. Together they have the potential to permit globally created educational resources to serve the knowledge needs of diverse communities; they offer the possibility of bringing interactive educational experiences that have hitherto not been the norm to learners.

As the NKC report states:

Our success in the knowledge economy hinges to a large extent on upgrading the quality of, and enhancing the access to, education. One of the most effective ways of achieving this would be to stimulate the development and dissemination of quality Open Access (OA) materials and Open Educational Resources (OER) through broadband Internet connectivity (NKC, 2007). [10]

9. Open educational initiatives in India

India is becoming an active player not only in the open source software movement, but also in the OA movement as evidenced by the increasing availability of OA electronic journals, OA repositories and open source software-based repositories such as DSpace and EPrints. In fact India has a good record in the OA area, with 81 scientific journals accessible as OA. A notable initiative is the project being coordinated by the Indian Institute of Science

of Bangalore, along with Carnegie Mellon University, in which 21 Indian institutions are participating and have digitised more than 450,000 books, 220,000 of which are now web accessible. This early success notwithstanding, the growth of OA materials as well as their impact on the cost and quality of research and human development in India has been stymied – not only by inadequate broadband connectivity and other technology constraints – but also by the absence of enabling policies exacerbated by insufficient government funding. For instance, there is both a lack of recognition of intellectual property issues in the mandates of sponsoring agencies and research institutions, as well as a lack of advocacy and information about the issue (Arunachalam, 2006). In contrast to the OA situation, OER efforts in higher education are sparse, with only three or four major initiatives specifically for creating open educational tools and resources that are directed towards basic sciences and engineering education. One significant undertaking in this area is the National Program on Technology Enhanced Learning. It is a joint venture by seven Indian institutes of technology and Indian institutes of science and funded by the Ministry of Human Resource Development, Government of India to enhance the quality of engineering education in the country by developing curriculum-based video and web courses (http://nptel.iitm.ac.in). Phase 1 of the programme has resulted in the production of 120 web-based courses and 115 video courses, each of 40–50 hours duration. These courses are in the core sciences, computer science, civil engineering, electrical engineering, electronics and material engineering. Over 300 faculty from all Indian institutes of technology and Indian institutes of science have been involved in developing course content, with the objective of improving the quality of engineering education in the next tiers of engineering institutions, including teachers and students from rural areas. The approximate cost of development of a course was $15,000. Another illustrative open education initiative is Ekalavya, launched by Indian Institute of Technology, Bombay. In this project, content developed in various Indian languages is distributed over the Internet. The Ekalavya project has developed an Open Source Educational Resources Animation Repository (OSCAR) that provides web-based interactive animations for teaching. OSCAR provides a platform for student developers to create animations based on ideas and guidance from instructors. Funding for the Ekalavya and OSCAR project comes mainly from private industry. A third prominent initiative, E-Grid, supported by the Human Resource Ministry of the Indian Institute of Information Technology, Kerala, provides subject-specific portals that are developed and maintained by subject domain experts. Currently, this programme offers OER only for science and engineering. Despite this

promising set of projects there has been no systematic national effort to develop a strategy for developing and delivering OER. Such a strategy would need to address the development of OER for a wider range of disciplines and regional languages, as well as support to allow greater adoption among teachers and students. [2], [3]

10. Conclusions:

In a global economy impacted by accessible information via the Internet, independent, self sustained learning is rapidly becoming more common and enhanced by the Open Educational Resources and other aspects. While we consider becoming a life-long learner a goal for our students, technology has opened the door, creating endless possibilities to facilitate the achievement of this goal, by giving us tools that foster learning as a way of life, rather than, or perhaps in addition to, the lofty goal of education achieved with supporting degrees. Additionally technology is continuing to provide a variety of mediums that enhance the development of information literacy in both student and educator. The resourceful librarian with vision, who stays abreast and remains open to the changing trends in the educational world, who is knowledgeable of available resources both print and online, and who also gains experience with changing technologies, becomes an essential partner in the collaborative educational efforts of both instructor and student. The academic library remains a place where student and instructor are patrons by choice, engaging information in the quest to gain an education, experiencing information to achieve knowledge and skills. The librarian is both leader and servant, a co-creator with students and educators in the social learning community.

11. References:

1. Arunachalam, S. (2006). Open access – current developments in India. In Proceedings Berlin 4 Open Access: From promise to practice (Potsdam-Golm, Germany: Max-Planck Institute for Gravitational Physics, Albert Einstein Institute).

2. Atkins, D., Brown, J. and Hammond, A. (2007). Report to the William and Flora Hewlett Foundation: A review of the Open Educational Resources (OER) Movement: achievements, challenges, and new opportunities.http://live.grokker.com/grokker.html?query=librarians%20use%20oer& Yahoo=true&Wikipedia=true&numResults=250

3. BOAI. (2002). Budapest Open Access Initiative. http://www.soros.org/openaccess/read.shtml

4. Brown, J. and Adler, R. (2008). Minds on fire: Open education, the long tail, and learning 2.0.Educause Review. http://www.johnseelybrown.com/mondsonfire.pdf

5. Center for Educational Research and Innovation, CERI. (2007). Giving knowledge for free, the emergence of Open Educational Resources. http://browse.oecdbookshop.org/oecd/pdfs/browseit/9607041E.pdf

6. Downs, S. (2006). Models for sustainable Open Educational Resources. *Interdisciplinary Journal of Knowledge and Learning Objects 3* 29-44, February 27, 2007. http://www.downes.ca/cgi-bin/page.cgi?post=33401

7. Goyal, M. (2006, February 27). The job boom: Too many offers, too little talent. India Today, pp. 34–40.

8. Lynch, C. (2008) Digital libraries, learning communities, and open education selected from Iiyoshi, T., & Kumar, M. S. V. (2008). *Opening up education: The collective advancement of education through open technology, open content, and open knowledge.* Cambridge, Mass: MIT Press. http://ocw.mit.edu/OcwWeb/web/about/history/index.htm.

9. Mullins, J., Allen, F., and Hufford, J.(2007). The Top Ten Assumptions for the future of academic libraries and librarians: A Report from the ACRL research committee. *C & RL News.* http://www.ala.org/ala/mgrps/divs/acrl/publications/crlnews/2007/apr/tenassumptions .cfm

10. National Knowledge Commission. (2007). Report of the working group on open access and open educational resources. New Delhi, India: National Knowledge Commission, Government of India. http://knowledgecommission.gov.in/ downloads/documents/wg_open_course.pdf

11. Press Information Bureau. (2005, June 2). National Knowledge Commission constituted. Press release. Retrieved June 8, 2008, from http://pib.nic.in/release/release.asp?relid=9576

12. Thakore, D. (2004). UGC begins a new innings. India Together. http://www.indiatogether.org/2004/may/edu-ugc.htm