Open Educational Resources Reform in Higher Education

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Abstract

In the current knowledge-driven global economy, higher education systems play major roles in social development and national economic competitiveness. The growing demand for higher education and the ongoing rollout of ICT infrastructure have created unique challenges for higher education institutions in an era of tight resources. This paper provides an open view of Open Access Resources mainly in a developing country scenario. This paper also discuss the necessity of using open access resources in higher education due to ever-increasing journal subscription costs and declining library collections budgets. Libraries are expanding their collections by making open access (OA) research literature available through their catalogs, Web sites, open URL resolvers, and other resources. Open Access increases the impact of the research in which they invest public money and therefore there is a better return on investment. Society as a whole benefits because research is more efficient and more effective, delivering better and faster outcomes for us all.

Keyword: OER, Open Access Resources, Higher Education, ICT

Open Educational Resources (OER) represent an emergent movement that is re-shaping learning and teaching in higher education worldwide. In the current knowledge-driven global economy, higher education systems play major roles in social development and national economic competitiveness. The growing demand for higher education and the ongoing rollout of ICT infrastructure have created unique challenges for higher education institutions in an era of tight resources. It has become increasingly important for educational institutions to support, in a planned and systematic manner.

The transformative potential of OER also includes the benefits of sharing and collaborating among institutions and countries, and the creatively disruptive role of OER in opening up new educational models. Increased online access to OER has

further promoted individualized study, which, coupled with social networking and collaborative learning, has created opportunities for pedagogical innovation. The OER movement-is a technology-empowered effort to create and share educational content on a global level.

Open educational resources are digital learning objects that are "offered freely and openly for educators, students, and self-learners to use and re-use for teaching, learning, and research. "Open Access mean its free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work. It concerns the outputs that scholars normally give away free to be published-peer-reviewed journal articles, conference papers and datasets of various kinds.

Need for Open Access Resources

- Faced with ever-increasing journal subscription costs and declining library collections budgets, libraries are expanding their collections by making open access (OA) research literature available through their catalogs, Web sites, open URL resolvers, and other resources.

- Open Access benefits researchers, institutions, nations and society as a whole. For researchers, it brings increased visibility, usage and impact for their work. Institutions enjoy the same benefits in aggregated form. There is growing evidence to show that countries also benefit because Open Access increases the impact of the research in which they invest public money and therefore there is a better return on investment. Society as a whole benefits because research is more efficient and more effective, delivering better and faster outcomes for us all.

- Open Access is the alternative to Closed Access (or Subscription Access or Toll Access). Traditionally, journals have been sold on subscription to libraries. In the age of print-on-paper this was the only model available that enabled publishers to disseminate journals and recoup the cost. Unfortunately, this meant that only researchers in institutions that could afford to pay the subscription charges were able to read journal articles. Even wealthy universities could only afford a proportion of the world's research literature. For institutions in poorer countries this proportion is tiny or even non-existent. At the beginning of this millennium, more than half the research-based institutions in the poorest countries had no current journal subscriptions and over 20% had an average of two subscriptions.

Definition of Open Access Publication (from the Bethesda Statement on Open Access)

An Open Access Publication is one that meets the following two conditions:

- The author (s) and copyright holder (s) grant (s) to all users a free, irrevocable, worldwide, perpetual right of access to, and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship, as well as the right to make small numbers of printed copies for their personal use.

- A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in a suitable standard electronic format is deposited immediately upon initial publication in at least one online repository that is supported by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, interoperability, and long-term archiving (for the biomedical sciences, PubMed Central is such a repository).

- Open Educational Resources (OER) are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use or repurposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge (Atkins, Brown, & Hammond, 2007, p. 4).

The advantages of Open Access Resources

- Provides the material on which the new semantic web tools for data-mining and text-mining can work, generating new knowledge
- Open Access brings greater visibility and impact
- Open Access moves research along faster
- Open Access enables better management and assessment of research from existing findings
- Collaboration between the scholars, scientists, educationists
- Opening up the education system for everyone regardless the age and other barriers
- Putting emphasis on quality education that freshens the mind rather than cramming some facts for scoring grades only

Interesting Open Access Facts

The number of open access journals is dramatically increasing-over one thousand new titles have been added each year for the past 3 years.

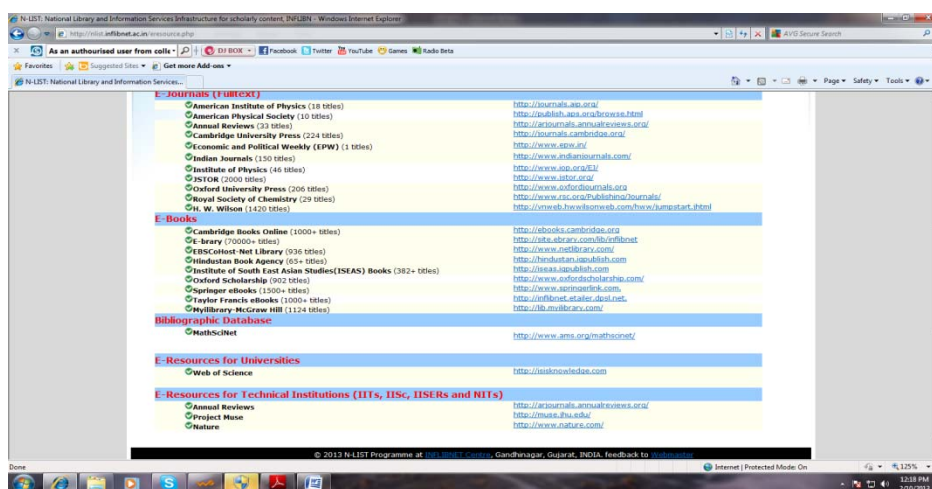(Data from the Directory of Open Access Journals) **http: //www. doaj. org/**

Multidisciplinary lists of open-access Resources
- DOAJ (Directory of Open Access Journals)
- OAD (Open Access Directory) wiki site-contains a complete history of OA, lists of OA journals, institutions with OA policies, educational materials and lots more
- SPARC (Scholarly Publishing & Academic Resources Coalition) of the Association of Research Libraries
- PLoS (Public Library of Science) Open Access information page
- SHERPA (Securing a Hybrid Environment for Research Preservation and Access)
- OASIS-Open Access Scholarly Information Sourcebook-Click the "Researchers" link in the left menu bar
- OpenDOAR (Directory of Open Access Repositories)
- JURN directory (arts & humanities ejournals)
- Open Access Journals Search Engine (OAJSE)
- Revistas CSIC, Scientific Journals published by CSIC, Spain
- University of Nevada Collection of Free Electronic Journals
- Bioline International

The Indian Open Educational Resources
- NLIST of INFLIBNET http: //nlist. inflibnet. ac. in/
- access for the e-resources: 3000+ ejournals and 75000+ ebooks.
- eGyanKosh of IGNOU http: //www. egyankosh. ac. in/ eGyankosh by Indira Gandhi National Open University, a premier Distance Learning provider;provides open & free resources to students not confined to its own students.
- eGurukul of IIT, Kanpur http: //e-gurukul. net/

- Open Journal Access System (OJAS) http: //www. inflibnet. ac. in/ojs/
- The Shodhganga of INFLIBNET Centre provides a platform for research students to deposit their Ph. D. theses and make it available to the entire scholarly community in open access. http: //shodhganga. inflibnet. ac. in/
- Indian biomedical literature: INDMED http: //medind. nic. in/imvw/
- OpenMED@NIC is an open access archive for Medical and Allied Sciences. http: //openmed. nic. in/
- NISCAIR

INFLIBNET-NLIST http: //nlist. inflibnet. ac. in/

Conclusion

Many of the technical and legal barriers to open education have been alleviated, and a critical mass of content has been achieved. Colleges and universities have a stake in quality teaching and learning, which may be advanced by using OER. Rather than trying to replicate libraries' traditional role in developing services, there is a need to step back, consider the entire life cycle of content, redefine roles for the library in managing content, and use of open access resources.

Government initiatives in the form of the contributions provided by INFLIBNET NList, Shodhganga, OJAS have helped to the Higher education community. Premier academic institutes have also created repositories of learning objects like eGurukul, a repository built at the Indian Institute of Technology Kanpur. We can say optimistically that India has started in the OER way. Contributions made by Distance Learning Universities (IGNOU) are major creator in the field of Open Resources.

The *Research Library's Role in Digital Repository Services*, states that "the delivery of repository services is a crucial function of research libraries". Libraries deploy repositories to support open access. Most Information resources are organized according to disciplinary community, and libraries usually work with individual research units to determine collection policies for each community. In the evolving economic environment of resource constraint and conflicting priorities for research

institutions, a concise and compelling articulation of the impact OER can achieve will become even more important.

OER do not automatically lead to quality, efficiency and cost-effectiveness; much depends on the procedures put in place and how we effectively utilize them successfully. OER gained significant currency around the world and its potential to contribute to improved delivery of higher education around the world.

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