Institutional Repositories

Shubhada Nagarkar*

Institutional repositories(IRs), if established in various universities, would help bring out the contributions by Indian researchers on the world map, especially in the field of Arts, Humanities, and Social Sciences as well as Indian knowledge systems. India has diverse cultures and local knowledge systems are not indexed in any of the world's recognized databases, Indian cultural heritage and research contributions in Indian languages are likely to remain invisible. The establishment of IRs is the only solution to preserve the indigenous knowledge.

The progress of higher education institutions (HEI) is typically measured by the quality of education and research output of faculty members. The latter is communicated in a variety of formats that encompass research papers, books, patents, conference papers, plays, documentaries, short films, exhibitions, etc. Institutional research findings, therefore, need to be collected, documented, preserved, and disseminated. Collection and preservation of institutional knowledge for the long term, in the form of repositories, have many advantages along with the added benefit of ease of accessibility. A large number of Institutional Repositories (IRs) have been registered in the Registry of Open Access Repositories (ROAR). Many of these repositories have been created and continue to be maintained by university and institutional libraries. This article explores the existence of IRs, their benefits, misunderstandings, and fallings. It concludes with an argument that IRs should be reinstated despite the extant challenges, especially in the context of India.

IR is an indicator of an institution's academic quality, status, and reputation. Stevan Harnad, the founder of the Open Access Movement, has clarified that an institutional archive collects, stores and disseminates digital copies of an institution's research and intellectual output. In 2003, Lynch in his celebrated essay 'Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age' defined institutional repository as "a set of services that a university offers to the members of its community for the management and dissemination of digital materials created by the institution and its community members". Thus, IRs are document servers maintained by universities, especially by their libraries to enable their members to digitally publish or self-archive their scholarly documents.

* Dr Shubhada Nagarkar is with the Department of Library and Information Science, Savitribai Phule Pune, University, Pune. Email: shubha@unipune.ac.in

Advancements in database technology made it possible to have several software tools to create open IRs in which capturing, preserving, and disseminating institutional scholarly work became easy. Widely downloaded tools are Dspace by MIT, Boston created in collaboration with the Hewlett Packard Corporation, USA; eprints software from the University of Southampton in the U.K., and Greenstone by New Zealand Digital Library Project at the University of Waikato.

The following types and forms of documents have been preserved in these IRs.

1. Research papers, books, chapters in books, papers in conferences, keynote addresses and patents.
2. Events and performances, documentaries by faculty from Arts, Humanities, Social Sciences, Journalism, Media, and Communication studies.
3. Experimental and observational data collected through systematic ethnographic/anthropological/sociological surveys of various communities based on study of social issues.
4. Intellectual pieces and essays published especially, editorials, op-ed, etc. in leading newspapers and in online news magazines
5. Grey literature, thesis, cultural materials, scientific datasets, institutional records, and educational materials

While all the above models exist, research papers published in credible journals remain dominant modes of research output. The academic community of readers also turns primarily to journals for the review of literature. For many authors, the issue of copyright remains a difficult one, with commercial publishers retaining the copyright over their published research papers. The editorial rites and standard publishing practices followed by these publishers, continue to attract publications from a majority of authors; apparently undeterred by the copyright hurdles. Institutional libraries pay high subscription charges to these publishers to make research accessible to their users. High subscription costs and copyright issues have become undeniable roadblocks that restrict access only to those who can afford to pay. Harnad, in 1995 argued that IRs populated with published articles in research journals (accepted pre-publication copy) though highly desirable, could negatively impact the business model of publishers; with the issue of copyright, still unresolved.

The demand for unrestricted access to research publications increased especially after the advancements in computer and communication technologies. After struggling for a decade, in 2002, the Budapest Open Access Initiative (BOAI) brought together a diverse group of stakeholders and launched a worldwide campaign for open access (OA) to peer-reviewed research.

The BOAI is a groundbreaking initiative that has been widely embraced by stakeholders, and that has stimulated significant progress toward the global understanding and adoption of open access. The BOAI, during the meeting organized by the Open Society Foundations to mark the

tenth anniversary, recommended two complementary strategies viz. Self-Archiving and Open Access Journals. BOAI declaration stated that researchers should receive the electronic copy of their papers for the widest possible dissemination, and should be allowed to archive them on personal websites or Institutional Repositories.

After the BOAI Open Access movement, IRs became a trusted source due to various features such as self-archiving, administrative support and approval, standard metadata for description of contents, version control, and rendering of a variety of services, etc. Access to scholarly publications, especially papers in credible journals, became possible due to IRs. This is also known as the Green Route of publishing, where publishers allow researchers to upload research papers into IRs, only after the embargo period of 12 to 24 months.

With the increased number of Institutional repositories, especially after the declaration of BOAI in 2002, the Registry of Open Access Repositories (ROAR) has registered more than 4000 IRs. It is hosted at the University of Southampton, UK, and is made possible because of the funding from the Joint information System Committee (JISC), U.K. In 2005, OpenDOAR project was launched by the University of Nottingham and Lund University. OpenDOAR is the quality-assured, global Directory of Open Access Repositories which host repositories that provide free, open access to academic outputs and resources. More than a 100 Indian IRs are listed in these two resources.

Thus, IRs reflect the reputation of the institute, and therefore fund allocation should be prioritized. After the survey conducted by world researchers about the acceptance and usage of IRs, Lynch observed that many university authorities have ignored IRs mainly because of a lack of awareness which leads to less budgetary allocations. Sensitization to IRs, especially its open access and self-archiving features among researchers, is crucial. Westrienen and Lynch identified several reasons for non-participation in IRs by faculty members, such as difficulties in convincing faculty members to participate, confusion about copyright and Intellectual property issues, underuse of IRs, the perception of Open Access content being of low quality, and lack of mandatory policies for depositing manuscripts. The other reason could be a parallel mechanism being made available to get access to full text via subject repositories like arXiv the first and preeminent archive of its kind, an initiative by Ginsparg in 1994, for mathematics, physics, and engineering, PubMed Central for biologists. Research Networks like ResearchGate, Academia, and social media have also made it possible to upload and share research output easily.

Though more than 100 Indian IRs are listed in ROAR, many more do exist, but they either lack registration or are accessible only at the intranet level. Many workshops have been organized by the library community to familiarize the installation and use of IR software like Dspace, Greenstone and eprints. The ensuing low success rate is attributed to lack of institutional managerial and Information Technology (IT) support. Another bone of contention is the visibility

of pre-publication data and the fear of data theft, without factoring in the date stamp (Digital Object Identifier -DOI) assigned to each paper by the IR.

Though the situation seems depressing, the importance of IRs should be reinstated. Lynch has argued that IRs can serve as an engine of change for institutions of higher education if properly developed. To achieve this, intellectual leadership from the faculty and the library should work in partnership, with aggressive investment by the university authorities which will permanently change the landscape of scholarly communication.

In the context of India, IRs if established in various universities, would do wonders in bringing out the contributions by researchers on the world map, especially in the field of Arts, Humanities, and Social Sciences as well as Indian knowledge systems. India has diverse cultures and local knowledge systems preserved in several indigenous languages by the research scholars. Since these treasured contributions are not indexed in any of the world's recognized databases, Indian cultural heritage and research contributions in Indian languages are likely to remain invisible. Therefore, establishment of IRs is the only solution to preserve the indigenous knowledge.

References

Ginsparg, P. 1994. 'First steps towards electronic research communication'. *Computers in Physics*, *8*(4), 390-396.

Harnad, S. 1995. 'A subversive proposal'. In Okerson, A. and O'Donnell, J. (Eds.). *Scholarly Journals at the Crossroads: A Subversive Proposal for Electronic Publishing*. Association of Research Libraries, Washington, DC. https://eprints.soton.ac.uk/362894/

Lynch, C.A. 2003. 'Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age'. *portal: Libraries and the Academy 3*(2), 327-336. doi:10.1353/pla.2003.0039.

Van Westrienen, G., and C. A. Lynch. 2005. 'Academic institutional repositories'. *D-lib Magazine*, *11*(9), 1082-9873.