Executive Summary

Information resources are essential tools for effective research, teaching and learning. Dawn of open access initiatives made easy for the contributors - faculty, researchers, practitioners, decision makers, students, publishers and librarians to have free access to the scholarly content and to build a critical mass of scholarly content in a sustainable manner. Efficient management of this critical mass of scholarly content is the main crux of the present century. This study concentrates on demonstrating national consolidation of scholarly content as well other data types, such as research Reports, Supplementary data, Clinical trials etc., in Health Sciences Repository by harvesting metadata from institutional repositories and other archives using the Open Archive Initiative Protocol for Metadata Harvesting (OAI-PMH). They are the input point for building national digital repository for the country. Institutional Repositories are the most cost effective and immediate route for providing access to the results of publicly funded research, thereby maximizing the potential research impact of these publications.

There are many technical as well as social issues in establishing digital repositories. Technical issues such as selection of hardware, loading software, uploading data, set-up test server, manage process and maintenance. Social issues that are normally identified are filling up IRs, advocacy and preservation. A large number of IRs have been established worldwide. More than 2500 repositories have been registered with Registry of Open Access Repository (ROAR) as maintained by Open Archive Initiative’s web site (http://roar.eprints.org/). India is also a leading country in establishing more than 60 institutional repositories. DSpace and Eprints are the two major software packages used in establishing institutional repositories. In Health Sciences, there are four digital repositories. Among them the contributions of OpenMed@NIC and Open Source Drug Discovery Repository are largely acknowledged.

Over a period of time it is the feeling of the professionals and experts that all IRs should be linked together to build national level repositories. National Digital Repository System (NDRS) is an aggregation of metadata of all digital repositories which directs users straight to the required resources available in participating Institutional Repository. The major objectives of NDRS are to identify the needs, deployment of strategies, interoperability, legal aspects of Open Access (OA), long term preservation policy in building sustainable NDRS in the country. NDRS can adopt any one of the existing models - Centralized, Distributed and Harvesting. However, keeping in view the merits and demerits of all these models, it is suggested that Harvesting model can be adopted in design and development of NDRS in a country like India. It should be stored in a high end server and harvesting software should be selected as open source software. National level systems developed in various countries have been studied thoroughly to design this national model. Apart from National level systems, the study has taken care of various International Digital Repository Systems, Publishers Repositories and Search Engines which also harvests digital repositories across the globe.

The study reveals that there is a lack of awareness about the Institutional Repositories and their benefits in the country. Keeping in view the current scenario of Institutional
Repositories (IRs) and National service providers in the country, there is a need to look at more robust and sustainable model for providing a seamless access to large amount information available in various Health Science Institutes in India. The present study has also evolved institutionalization model of National Digital Repository System (NDRS) for intellectual wealth through cooperative collection, storage and management initiatives that can shape and support new strategies for institutional repositories in the country. Institutionalization requires the strong organizational and financial infrastructure to support and sustain its present activities and operations.

Proposed NDRS advocates for the cooperative management of repositories as a central facility backed by institution repositories to serve the community at large as archival repositories, and it would ensure preservation as the key to safeguarding the intellectual and cultural heritage of the country. It is mandatory for the member institutions to have their repositories to be part of a harvesting system. It is suggested that funds for capital expenses are to be granted by the apex bodies, and most of the operating funding come from the participating institutional repositories of the respective subject groups. Further, it proposes that there should be an agreement on core attributes of repositories, protocols for governing, management and preservation as well as the process of making the information widely accessible.

Further NDRS proposes a number of services to end users as well to the participating institution members. Few aspects such as personalization, annotation, alerting and linking to related documents in search results, name authority, citation analysis and automated subject classification services can easily be incorporated into the application software.

Forming of apex bodies to look after the policies of NDRS, providing advisory technical services to individual repositories are the needful recommendations of the present study. It is strongly felt that this research work is substantially prompting a new movement called ‘Free Online Scholarship’ (FOS). Current developments in the country are more inclined to accept and adopt this model to promote the envisaged FOS movement. It is further recommended that institution should make it mandatory for their researchers to publish their papers in the institutional repository and register their open access policy at Registry of Open Access Repositories Mandatory Archiving Policies (ROARMAP) (http://roarmap.eprints.org). These developments have created an environment in encouraging individual Institutions to become the publishers of their work and NDRS provides a mechanism for co-operative dissemination of the content, by supporting the development of open access for primary research literature on par with the conventional publication, and thus make for free access to scholars on a global basis.