Development of union catalogue is continuous process, which needs consistent collaboration and participation from member libraries. At the moment the integration and adoption of new standards and development of new interface for existing data for enhanced search services to the user is major concern for INFLIBNET, which has been resolved. The logical step of any union catalogue is resource sharing, ILL and document delivery and it is high time that member library will make use of this database is prime source for initiating such services. Libraries are also requested to contribute the data on regular interval and adhere to the guidelines.

The OII, which is still at the rudimentary stage of development, strongly believes in voluntary contribution from LIS professionals and libraries for its success. Therefore, the spirit of resource sharing and cooperative cataloging become the driving force for its success.

Indian social science literature is not widely covered in international indexing and abstracting journals.

OII, developed on the participatory approach model may fill this gap. For its success it expects data contributions and active participation from LIS professionals and also needs institutional backing for its for growth and development. This movement would probably also enhance resource-sharing activities among Indian social science libraries.

Future plans for developing the IMEMR include the following

Components.

1. **Adding abstracts to the database**. As indicated, about half of the articles listed on the database have an original abstract, which means that only data entry and proofreading costs need to be met. The other half would require preparation of abstracts by biomedical professionals.

Adding the abstracts would elevate the IMEMR to a higher

level of professionalism, quality and usefulness.

2. **Digitization and imaging of articles**. A number of journals, especially in Egypt, have already started creating images of articles and publishing them as PDF (Portable

Document Format) files on the Internet. Other journals have started publishing their articles on the Internet in HTML (Hyper Text Mark up Language) format as is clear

from the statistics (181 journals out of 408 are electronically available) shown above. A third group of journals is already included in other projects such as EXTRAMED

which was created in 1993 on the initiative of the World Health Organization (WHO), which brought together the publishers of over 290 biomedical journals from all over

the world into the ExtraMED Consortium. [24]. An assessment is needed of how much it will cost and the timeframe needed to develop a plan and a final decision.

3. **Adding monographs and other formal publications**.

This may include books, theses, handbooks, etc. A project to create a regional bibliography of Arabic medical books has already been launched [25].

4. **Adding current medical research** as a separate service form the Index and as part of WHO International Clinical Trials Registry Platform aiming to ensure that a complete

view of research is accessible to all those involved in health care decision making.

5. **Adding a search facility to allow bilingual searching**

**of the database** in both Arabic and English using the National Library of Medicine Medical Subject Headings of the National Library of Medicine.

6. **Linking articles to parent institutions of authors** for

citation analysis. The majority of records in the database include only the titles and address of the journals but not the Author's institution. Adding this feature would allow

cross-linking and networking between institutions and researchers.

More than 200

Researchers, faculty and students of more than 200 educational institutions in the country are offering bachelor's, matsre's and doctoral programmes related to communication disorders. Of them many are involved in clinical and applied research related to the field. scattered in different research-and studies

centers all over India

**Promotion and advocacy**

Setting up an archive is one thing, but getting the researchers to fill the repository with their scholarly publications is quite another. Constant promotion and advocacy are to be pursued to influence upon the researchers to either self-archive their scholarly publications or use some mediation to do it on their behalf. Libraries have a crucial role to play in the promotion and advocacy of OA concepts to their researchers. As far as the MOES repository is concerned, there has not been much of promotional and advocacy campaign to date. However, the ministry is intending to mandate submission of all research publications that emerge from the programmes and projects that are funded by the ministry.

Repositories will form a permanent and critically important part of the scholarly communication process.

The way to ensure that researchers deposit their work regularly is to have a proper Open Access policy which requires them to make their work Open Access and explains why this is important for them and the Institution.

There are three web-user interfaces in SpaceGL: **Collection and user Management, Submission interface, and Search and Browse.** All documents and material on SpaceGL are organised in collections. Collections can be organized in trees, which can be created for different types of grey literature like Conference papers, Seminar etc. SpaceGL Team Manager is responsible for the local customisation of the system and administration of users, i.e. he/she can register users and assign specific rights to them. Responsibilities and user roles are defined on the collection level.

Documents are entered via a step-by-step process or single form submission interface which guides depositors through the process and offers extensive documentation of metadata fields in the help texts. Files can also be uploaded with structured metadata. The different user roles have different interfaces and visibility of administrative metadata depends on the level of rights in the system.

Different types of space science grey literature, i.e., colloquiums, symposiums, talks, conference papers, seminars, etc. are provided, as shown in the collections and communities page in Fig. 2.

The third interface allows user to search and browse either on a general subject level or on a specific one. There are three types of searches available, quick search, ‘full-text search’ and ‘advanced search’ which allows a combination of various different search terms to exploit the full potential of the underlying metadata model (Fig. 3).

The main entry point for getting an overview on records deposited on SpaceGL is by browsing through collections or by browsing through the alphabetic lists of authors. One can browse by date, subject, author or scientific domain, while the search is operating on titles, authors, sponsors, subjects, handles and abstracts. (Figs. 4-6).

The system has been tested on three different Internet Browser namely on Internet Explorer, Netscape Communicator and Opera so as to ensure cross browser compatibility of the interface

***Date of publication of articles***

The steady increase in the number of articles added to the database reflects the increasing number of journals covered in the database which has increased as indicated earlier from 70 in 1984 to 408 titles in 2008. The highest number of articles indexed is between 1992 and 1999 as by end of 1999 major effort was exerted to index journals retrospectively to avoid delay of publishing the Index.

***Top authors in EMR journals as reflected in the Index***

Since Egypt contributes a major proportion of the database, Egyptian authors naturally came on top of the list, ranking according to the total number of articles of which one is an author or a co-author. Ten authors from Pakistan were among the top 20 on the list. This ranking maybe used to identify consultants, researchers or educators for a given subject. It will continue to help in forming networks of researchers in various areas in the Region.

***Top subjects in EMR medical journals as reflected in the***

***Index***

Subjects covered by the Index include all health and biomedical topics, environmental health, pharmacy, dentistry and veterinary sciences. The ten most popular topics (MeSH headings) covered were blood, surgery, hospital,

pathology, epidemiology (8%), liver, public health, child, women and pregnancy, which together make up 90% of the records in the database

**Type of articles indexed in IMEMR**

The vast majority of published materials are journal articles, clinical trials, and/or case reports, which together represent 91% of the total articles in the database

**IMEMR and other international indexing and abstracting services**

As indicated earlier, the unique feature of the IMEMR is its combination of geographic (Eastern Mediterranean Region), subject (health and biomedical) and publication type (journal articles) coverage. Overlap with other international databases is minimal as no other database has the same mandate as the IMEMR. MEDLINE, as one of the most internationally recognized databases covering health and biomedical subjects, has articles from 62 out of 408 (or 15.4%) journals from the Region. The selection criteria of MEDLINE and its indexing policies do not seem to allow for the majority of EMR journals to be indexed in the database. MEDLINE's criteria cover subject suitability, quality of contents, quality of editorial work, production

The Index has constituted a platform for networking and collaboration among editors and publishers of biomedical journals in the Region. This has resulted in the creation of the Eastern Mediterranean Association of Medical Editors (EMAME). EMAME convened three regional conferences and organized a series of training workshops for journals' editors.

The easiest way to locate literature in the topic area is by searching the many electronic bibliographic databases. These databases contain listings of the references (and possibly abstracts) from selected research journals, accumulated over the years.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) WINISIS (Integrated Set of Information Systems, Windows version) computerized information retrieval package is used to manage the Index database. The search engine developed by the WHO –Latin American and Caribbean Centre on Health Sciences Information is used to publish the database on the web and to provide full search capabilities to all the data elements in the database. The data elements comply with the UNESCO Common Communication Format and the Dublin Core. Search results may be displayed in different formats according to user needs. These can be copied to a file for further processing, and either full details or short records can be displayed.

Country or subject-specific subsets of the database are published and distributed upon request or for specific occasions or health topic websites of the Regional Office, such as malaria, tuberculosis, etc The IMEMR has been made searchable through commercial search engines, including Google Scholar. This facility has allowed searching the database without having to go into its search interface, as all citations in the database are already indexed by Google.

Their first role is to provide the Open Access literature. Additionally, services may be added to repositories to provide extra functionality. For example, a usage-reporting service gives authors and the institution information on how the content of the repository is being used. A search service may help users find specific items more easily. A service that organises content in specific ways may help authors, for example, to download a list of articles into their CV, or aid institutions in assessing the institution’s research programme or for reporting data to governments or for other statutory requirements. We may be looking forward to a time when repositories play a formal role in the publishing process. Repositories can collect articles from the institution’s authors when they are ready for peer review and a peer review service will collect them from the repository for processing. There are already signs of these things happening. A few scholarly society publishers encourage authors to notify them when a paper has been deposited in a repository and is ready to be peer reviewed and published. Some university presses are working hand-in-hand with the repository when publishing books by institutional authors.

Because Google and the other Web search engines index the content of repositories, anyone with internet access can find themselves arriving at an article or dataset in a university or research institution’s repository via a Web search. But there are other ways that repositories are used, too. Users may search a particular repository if they know a specific researcher works at that institution. Or they may follow a link from another researcher’s website or blog. Although these specific ‘referrals’ are not uncommon, by far the most common way for searchers to arrive in a repository is through a Web search engine such as Google. Les Carr’s data (http://listserver.sigmaxi.org/sc/wa.exe?A2=ind06&L=american-scientist-openaccess-

forum&D=1&F=Pl&P=16792) on how the repository at Southampton University is used showed that Web search engines accounted for 64% of user traffic into the repository. This underlines how important these informal ‘world research databases’ that the Web search engines have created are for repositories and their institutions.

Sustainability of repositories

Repositories represent a certain basic cost to an institution but there are ways of minimising this.

The Index is managed by two full-time staff who work for the unit of Library and Information Networks as part of the Knowledge Management and Sharing Department. The actual work of indexing, data entry, proofreading and quality control is implemented through outsourcing to qualified health and biomedical professionals. An annual budget of US$ 75,000 is allocated by the Regional Office to fund the compilation, maintenance and publishing of the Index.

a repository depends in large amount on how much effort is needed to fill it. A repository that is filled by self-archiving – that is, by researchers depositing their own articles – is far less costly to an institution than one where the library does all the depositing work. Ideally, deposit activity should show a reasonably steady pattern throughout the year (<http://eprints.ecs.soton.ac.uk/13872/>).

We intended the ILCD to grow through deposit of elec­tronic theses and dissertations and voluntary deposits of scholarly work by faculty authors. The repository allows faculty to self-submit, and the library encouraged faculty to take advantage of the self-submit function to increase the reach of their scholarly work. While a few individuals were prolific users of the self-submit function, the majority of publishing faculty did not self-submit or ask library staff to assist them in uploading their publica­tions.

Self-archiving by the MOES scientists and the other stakeholders is very

Sporadic.

. To improve the situation, MOES scientists are to be educated about the benefits of self-achieving their publications in the MOES repository. Also, some of them may have misconceptions about issues related to copyright compliance. A great deal of promotional and advocacy about the OA repository needs to be undertaken by the ministry

Designing a user interface involves many professionals such as software engineers, graphic designers, human factor specialists, and technical writers, and also very often statistical consultants, all of whom cooperate to meet the project goals.

Constant promotion and advocacy are to be pursued to influence upon the researchers to either self-archive their scholarly publications or use some mediation to do it on their behalf. Libraries have a crucial role to play in the promotion and advocacy of OA concepts to their researchers. As far as the MOES repository is concerned, there has not been much of promotional and advocacy campaign to date. However, the ministry is intending to mandate submission of all research publications that emerge from the programmes and projects that are funded by the ministry.

***Availability of English abstracts in IMEMR***

It is unfortunate that at the inception of the IMEMR over 20 years ago, abstracting was not one of the services offered. Retrospective addition of abstracts started in

2005. All new citations in the database include abstracts as part of their bibliographic record. Priority has been given to the most recent journals and to journal articles that have original English abstracts.

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Content in DSpace is at the highest level organized into communities. At an institutional level, communities could be departments, labs, research centers, or schools. Communities, in turn, each have collections that contain logically‐related material, the items or files. For example, a technical report series might be a collection, which contains items, a grouping of content and metadata that users access as scholarly materials. Items may take the form of a research article, theses or dissertations,

or a technical report together with a dataset used in experiments described by the report. Communities and Collections are used within DSpace to provide the repository with an easy to navigate structure often representing an institution's organizational makeup

**Subject categories**

Categorizing the records that are uploaded in a repository is always a helpful feature. It helps the users to easily locate records pertaining to specific categories. To be able to categorize the records based on a subject classification scheme, the application software should support such functionality. GNU EPrints supports in implementing a subject . classification scheme for a repository. By default, the software supports Library of Congress subject headings. For the MOES repository, a broad-level NASA Geosciences Subject Categories (http://www.sti.nasa.gov/sscg/42.html) are being used. Figure 5 shows screen shot of browse by 'Subject'.

The user interface system, has gained much deliberation due to the fact that it affects the usability, which is a key factor for the success of a product.

A digital library may provide a single point of access to a huge quantity of multimedia information that is available to a variety of kind users

By considering the different user requirements and technical feasibilities, we propose the following user interface design principles for digital libraries for an effective user interaction and implementation.

The user interface of a system should support for different tasks2

**File formats**

The file format of the database is portable document format (pdf).

**Retrieval of records**

Retrieval of records from the repository is either through searching or browsing. Both simple and advanced searches are supported by the software. The advanced search facilitates in limiting a search to a specific field.

**Browse views**

The browsing functionality facilitates in browsing the records in the repository. For ePrints@MoES, several browse views have been created. These include browse by authors, document type, year of publication, funding agency, institutions etc. Figures 3 and 4 are screenshots of two such browse views, one for the OASTC, a programme supported by the MoES and the other by authors

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**Self-submission**

DSpace is an open-source software development software typically used for creating open access repositories for scholarly and published digital content. A repository is a system for delivering

The resources to be included in the database: journal articles, book chapters, books and conference papers in the field of communication disorders published from the country with provision to include more types of resources in future.

* The end user community was defined as faculty, technical staff, research scholars, students and administrators of the Speech and Hearing organizations across the country and abroad.
* The content uploading in future by the researchers or the contributors themselves with the verification by the database administrators at the Library and Information Centre.
* Restrict the content only to the abstracts with link to the full-text wherever available with provision to accommodate the full-text directly in future.
* Supporting file type: PDF with provision to support more file types in future.
* Restrict access only for the registered users and provision for free registration
* Facility for Author, title, subject, year, Institution, resource type and keyword based searching.
* Facility for usage report generation by the administrators
* Facility for data backup by the system administrator
* Item description using metadata standard
* User interface to design for End Users, Submitters and System Administrators
* To develop the database on DSpace with the required tables created using MySQL and apache web server. Codes/ scripts to be written using PHP scripting language.
* Creation of Top Level Communities under (a) Speech-Language, (b) Hearing (c) Speech & Hearing.
* Creation of Collections under Journal Articles, (b) Books, (c) Book Chapters, (d) Conference Papers.