Design and Development of Institutional Repository Using Dspace:
A Case Study of Kuvempu University, India

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ABSTRACT

Present study is a case study and limited only to Kuvempu University, Karnataka, India and describes the steps taken in implementing the IR. The present paper highlights the project undertaken i.e. creation of Institutional repository at Kuvempu University, India. The project is aimed to provide access to the literature highlighting institution's scholarship and to enhance the visibility of the institution's scholarship. It also provides a brief summary with guidelines to access the database. Logical approach is made in building different communities and collections. And details of the hardware and software requirements are provided along with information about available open source software. The paper provides evidence on how the Kuvempu University Institutional Repository was built from scratch and how different collections with numerous forms and formats can be accommodated using DSpace software. Many problems were faced during customisation of metadata forms for different collections apart from Dublin Core metadata fields. DSpace allows workflow and customisation as per institutional requirements. It supports community/collection based content and submission by different user communities. Finally this paper helps in planning to build an IR also helps the beginners in getting an idea of how different file formats can be used for different collections in order to maintain uniformity.

Keywords: Design, D-Space, Institutional Repository, Open Access Initiative, Scholarly Communications

1. INTRODUCTION

The digital archives, open access, institutional repositories and learning object repositories are the present day buzzwords emanated from Open Access Initiative. Institutional Reposi-tories represent an important OA-channel and are relatively new developments in scholarly communication process compared to open journals and subject-specific Repositories. The development of Institutional Repositories emerged as a new strategy that allows univer-

sities to apply serious, systematic leverage to accelerate changes taking place in scholarship and scholarly communication, both moving beyond their relatively historic passive role of supporting established publishers in modernizing scholarly publishing through the licensing of digital content, and also scaling up beyond ad-hoc alliances, partnerships, and support arrangements with a few select faculty pioneers exploring more transformative new uses of the digital medium.

The characteristics of IR include – Institution-based; Scholarly material in digital formats; cumulative and perpetual; open and Interoperable. Institutions and their libraries are in a better position than individual researcher to guarantee that the material is available even after decades and that the collection is systematically maintained, for instance, to take account of changing file formats and media. Institutional repositories represent an integral part of the long-term strategies of the universities in question, in particular as these have to redesign their publishing and library policies to take into account the totally new conditions created by the Internet. The institution's own production of theses and working papers can easily be put up on such repositories, but in the long run the posting of the central production of the university's researchers, that is, their conference and, in particular, journal papers, is crucial, although institutional repositories can be seen as useful marketing channels. Individual universities their most significant impact on the global scale can only be achieved via co-operation via open access indexing services[1].

In this way, intellectual contributions of researchers are made accessible free of charge to the whole community of researchers across the world. Thus, the open access which was evolved out of the necessity of wider access to scholarly publication relies on initiatives of individuals (self archives), institutions. It is more of a philosophy of facilitating wider communication, feedback and use.

2. ABOUT THE KUVEMPU UNIVERSITY

The Kuvempu University was established in 1987. There are about 250 faculty members (including Guest Faculty) working in the core areas of Physics, Biological Sciences, Chemical Sciences, Computer Science, Mathematical Science, Social Sciences, Education, Commerce and Management. These departments are broadly brought under the following faculties:

- Faculty of Science and Technology;
- Faculty of Arts;
- Faculty of Commerce;
- Faculty of Education.

3. DSPACE

A brief descriptive account of the Dspace Software is given below.

DSpace (http://www.dspace.org) was developed jointly by the MIT library and HP. DSpace modestly describes itself as a ground breaking digital repository system. It captures, stores, indexes, preserves and redistributes an organizations research material formats. DSpace support institutional repositories and electronic records management. DSpace is being used worldwide to meet many digital archiving needs.

DSpace is the software of choice for academic, non-profit, and commercial organizations building open digital repositories. It is free and easy to install "out of the box" and completely customizable to fit the needs of any organization. DSpace preserves and enables easy and open access to all types of digital content including text, images, moving images, mpegs and data sets. And with an ever-growing community of developers, committed to continuously expanding and improving the software, each DSpace installation benefits from the next [2].

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