
INSTITUTIONAL REPOSITORIES OF UNISWA LIBRARY: SEEKING SUCCESS

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Abstract

Over the last decade Institutional repositories have winged up in Academic institutions to provide archival storage and dissemination services for locally-authored digital scholarship, primarily in the form of the traditional peer-reviewed article. Libraries around the world are building up their own Institutional repository centre using a variety of software packages for digital asset and content management and also collect, preserve and provide access to these digital objects. However the implementation of IR's has not rapidly changed the landscape of scholarly communication as expected and without institutional deposit mandates, many remain underused for their primary purpose. Today, a shift is occurring in academia that has signaled an increased need for the stewardship of digital research data, for example, the expectation by federal funding agencies that researchers share their data and plan for preservation and long-term access. The IR provides academic libraries a ready opportunity to assist researchers with digital data preservation using their established repository services, particularly where national and disciplinary data centers are not available. At the University UNISWA our IR is based on DSpace software. This paper will highlight the policy decisions, user-needs assessments, and technical infrastructure plans for building up the Institutional repositories (IR) to meet data archiving needs across the campuses.

KEYWORDS:

Institutional Repository, Dspace, UNISWA, UNISWA Library, Digital Library.

1. INTRODUCTION

The University of Swaziland (UNISWA) was first developed from the University of Botswana, Lesotho and Swaziland (UBLS), formerly known as the University of Basutoland, Bechuanaland and Swaziland (UBBS), which had its headquarters in Lesotho between 1964 and 1975. Presently the University of Swaziland (UNISWA) the institution of higher learning in the country comprises of three campuses, Mbabane, Luyengo and Kwaluseni. This was established by an Act of Parliament in 1982 of the kingdom of Swaziland with a mandate to teach, conduct research and carry out community service. The Mbabane campus offer the Health Sciences, the Luyengo agricultural science and the Kwaluseni the main campus offers Science, Social Sciences and Humanities. They all offer Master's degrees, Bachelor's degrees, Diplomas and Certificate programmed with English as medium of instruction. To

cater mainly for employed learners, the institution offers a limited number of programmed through distance education. It is the centre of academic and intellectual excellence. It has the responsibility of preserving and transmitting the nation's cultural heritage while at the same time contributing to the generation of new knowledge through research. The university provides programmed and courses that are relevant to the human resources needs of the country that are in line with regional and global trends. The Library has taken the initiative of building an Institutional Repository using the open source software Dspace to support the long term preservation of the digital material for the Academic community. So far the institute has already hosted the theses and dissertation projects of the final year students. It also allows the Academic community to submit their resourceful articles in this repository centre and preserved it for future use. The building of an Institutional Repository is needed in the present scenario of digital world because of the following certain change:

Technological changes.
Significant increase in the overall volume of research.
Dissatisfaction with traditional print and electronic journals;
Escalating prices and relatively flat library budgets;
Economic problems;
Preservation and archiving of digital scholarly research materials.

All these factors have evolved and combined to create new expectations in the Academic community for the production, distribution and interchange of scholarly communication and to force a rethinking of the relative roles of authors, librarians and publishers as well as the possibility of entirely new actors who will emerge as the publishing model. In such an environment Institutional repository might act well to preserve an Institutional intellectual work product.

2. INSTITUTIONAL REPOSITORY:

An Institutional repository is a digital archive of a university's creative output. It is service that a University offers to the members of its community for the management and dissemination of digital material created by them. It is an organizational commitment to the stewardship of the digital materials including long term preservation. An effective Institutional repository needs the collaboration among librarians, Information technologies, Archives, Record managers, Faculty University Administrators and Policy makers and will be supported by a set of Information technologies. The key part of the services that comprises an Institutional repository is the management of technological changes and the migration of digital content from one set of the technology to the next as a part of the organizational commitment providing repository services. An Institutional Repository is the best way to provide Open Access to research output.

3. IMPORTANCE OF INSTITUTIONAL REPOSITORIES:

Institutional repository centralizes, preserve and make accessible the knowledge generated by the Institution. It enables to publicize its research and teaching programmes by enabling access to the work of its staff and students. The quality of a university's academic output forms an effective advertisement for the institution. Institutional repositories benefits the scholar and the institution by bringing timely access, broader dissemination, increased use, and enhanced professional visibility of scholarly research, teaching materials and a wide range of creative output while potentially raising the institutional profile. It also form part of a larger global system of repositories which indexed in standardizes way and searchable using one interface, providing the foundation for a new model of scholarly publishing. Institutional repositories often employ a method of article submission known as author self-archiving and rely on user communities to control the input of content. Institutional repositories benefit both the Institution and its scholars by raising the Institutional profile while also bringing broader dissemination, increased use and enhanced professional visibility of scholarly research others benefits are:

Avoid duplication;
Contribute to institutional knowledge management;
Improve Research collaboration-interdependent, inter-Institutional, International;
Enhanced the status and reputation of the institutes;
Enhanced research capacity;
Managing institutional information assets;
Accreditation / performance management;
Long term cost savings
Opportunities to simplify and extend dissemination
Flexible ways to develop existing scholarly communications.

4. OVERVIEW OF IR OF UNISWA LIBRARY:

In the year 2007 the UNISWA Library formed an Institutional Repository (IR) Committee to look into the issue of establishing an Institutional Repository. In broad terms, an institutional repository is an electronic system that captures, preserves, and provides access to the digital work products of a community. The Library started with the basic premise that the scholarly output of UNISWA researchers is an institutional intellectual asset, one that should be carefully guarded and preserved for posterity. The ultimate goal of the project is to archive all the university research output. Right now the Library is only concentrating on material born digital. This IR initiative will maximize the impact of research carried out in the university.

4.1. ICT infrastructure:

The Library had been grappling with the issue of buying a server for hosting the IR project. In the meantime the ICT Center provided server space for the project. It was then decided that DSpace would be the platform of choice because of its popularity. The ICT Center did the software installation and also assisted in the customization of the look-and-feel of the repository. DSpace is open source software that is used on digitization projects. The repository now holds 163 full text articles and all the files are in PDF. These documents were solicited from members of staff with the sole purpose of piloting the project.

(i) Thesis and dissertation (215 documents)

The above collection comprises of both undergraduate theses (aka student project reports) and postgraduate thesis (a.k.a masters theses).

(ii) Faculty publications (61)

This collection includes journal articles, community /consultancy services articles, and 2 electronic books.

4.2. Training of Library Staff:

The Library will provide in-house hands-on training to its staff on DSpace workflow and submissions. Staff will get the opportunity to learn how to prepare documents in an acceptable format and the submission process as a whole.

5. ISSUES OF COMMON CONCERN:

5.1. Submission method:

The Library emphasizes a fully mediated service for faculty members, where library staff manages the whole submission process from metadata entry, file conversion to uploading. Faculty members may support the project in principle, but very few take action voluntarily. The great challenge now is how to instill a change of mindset among researchers to make self-archiving an integral part of

their academic life.

5.2. Copyright issue:

Currently, 90% of some 9000 surveyed publishers, including the Science & Technology publishers have agreed that authors may archive copies of their published papers in their institutional archives. The remaining 10% of the publishers have not yet been approached (Chan, Leslie et al. (2005)). Although in most cases, researchers have transferred the copyright of their publications to the publishers, they may still exercise their self-archiving rights to make their scholarly work openly accessible if all publishers' requirements are complied with. The Library will advise on such issues.

5.3. Accessibility:

Institutional repositories may have emerged alongside Open Access Movements; however the Library's approach was to first pilot the initiative within the UNISWA network (intranet). Hence the documents are only accessible to the UNISWA community.

It is envisaged that in future the Library will follow the Open Access path. Open Access means free, online access to digital scholarly materials, primarily peer-reviewed research papers but also other types of digital content that authors wish to make freely available to all users online. The contents of the IR are accessible at: <http://dspace.uniswa.sz:8080/jspui/>

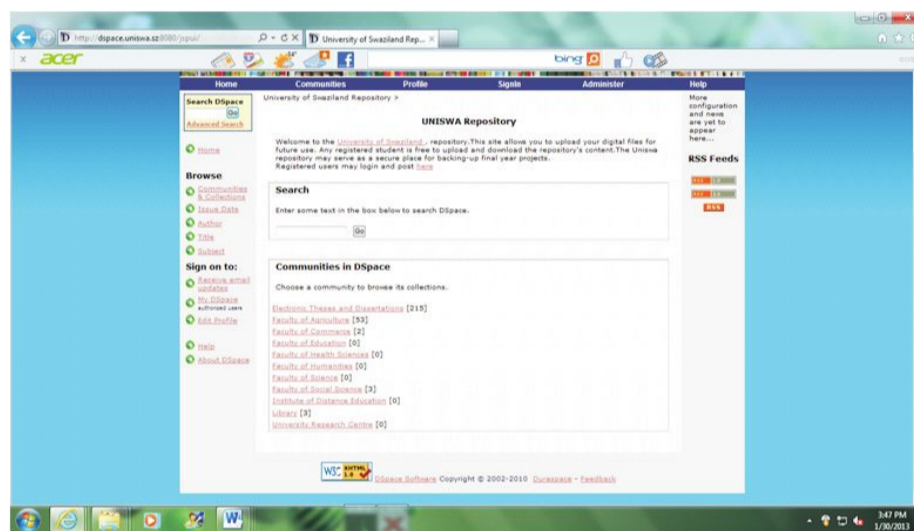


Figure : UNISWA Institutional Repository Home page

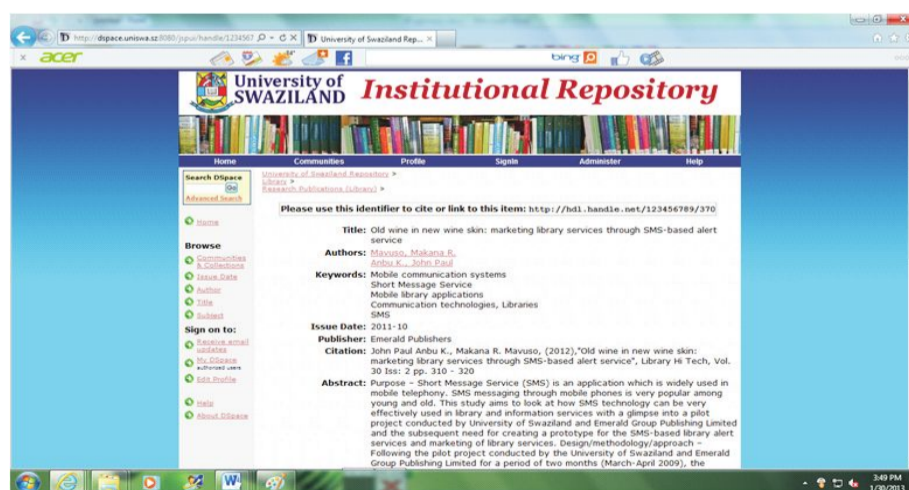


Figure : Article published by staff

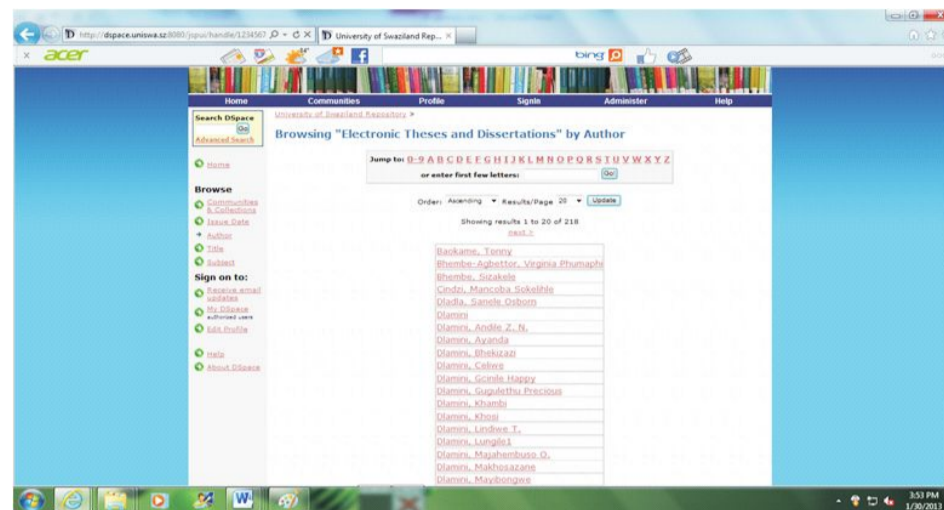


Figure 3: Browsing Thesis and dissertation by author

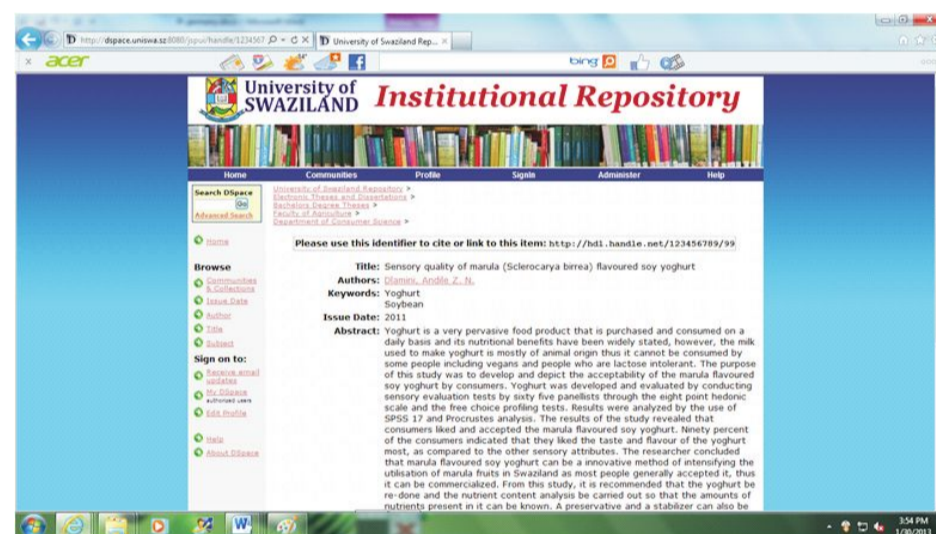


Figure 4: Full Thesis on dspace

6. DIGITAL CURATION:

The selection, preservation, maintenance, collection and archiving of digital assets is known as digital curation. It generally refers to the process of establishing and developing long term repositories of digital assets for current and future reference by researchers, scientists, historians, and scholars. Enterprises are starting to utilize digital curation to improve the quality of information and data within their operational and strategic processes.

6.1. Opportunities and Challenges of Digital Curation

Digital technologies allow us to create, manipulate, store, and make accessible all manner and amounts of information never before possible, yet these same technologies imperil the longevity of the very objects they produce and require very different management than what has been practiced in the paper-based world. A few institutions have been engaged in digital curation activities for several decades, but most institutions are very new to digital curation and do not yet have established practices or resource streams for ensuring success. There are also many fundamental open research questions related to long-term digital preservation. Fortunately, there is a growing awareness of the need to

preserve access to digital assets and recognition that digital curation is one of the grand challenges of the early 21st Century (Brophy and Frey 2006; Charter on the Preservation of the Digital Heritage 2003; Fitzgibbon & Reiter 2004; Hedstrom 2003; Hedstrom & Ross 2003; Levy 1998; Library of Congress; NSF Cyber infrastructure Council 2007; Ross 1998; Rothenberg 1995; The State of Digital Preservation 2002; Tibbo 2003). Digital curation reduces duplication of effort in research data creation, and enhances the long-term value of existing data by making it available for further high quality research. Digital curation and data preservation are ongoing processes, requiring considerable thought and the investment of adequate time and resources. We must be aware of, and undertake, actions to promote curation and preservation throughout the data lifecycle. The Digital Curation Centre Lifecycle Model provides a graphical, high-level overview of the stages required for successful curation and preservation of data from initial conceptualization or receipt through the interactive curation cycle. The digital curation lifecycle of DCC comprises following steps:

Full life cycle actions:

Description and Representation Information
Preservation Planning
Community Watch and Participation
Curate and Preserve

Sequential actions:

Conceptualize
Create or Receive
Appraise and Select
Ingest
Preservation Action
Store
Access, Use and Reuse
Transform

Occasional Action:

Dispose
Reappraise
Migrate

7. DIGITAL CURATION IN THE CURRENT ENVIRONMENT AND TRENDS:

The increasing amount of institutional repository planning and development has made it realize to keep space for digital curation. Most institutions haven't yet plan. There is a wide diversity of approaches, even by those apparently doing same things. Efron's found that there were a relatively small number of items in institutional repositories but relatively rich description of the items. There are already a lot of metadata sharing and federation taking place, but a pressing need for more sharing and federation of content.

8. DIGITAL CURATION IN UNISWA LIBRARY:

The prospects for preservation and curation in IR are positive and it is known that the current state of practice is not ideal. It's high time to think about it before it's too late as some research data are unique and cannot be replaced if destroyed or lost. The Institutional repository in UNISWA library is still in infant stage so far we haven't taken any steps for digital curation. We rely on Dspace as it is a groundbreaking Digital Library system to capture, store, index, preserve and redistribute the intellectual output of a University research faculty in a digital format. But It's high time to think about it to have a

secure future of our Institutional Repository.

9. CONCLUSION:

Institutional Repositories significantly extend the role of a library. And it is clear that the IR is a powerful idea that can serve as an engine of change for our institution of higher education and more broadly for the scholarly enterprises that they support. The building of IR of UNISWA Library is a long term commitment and the Library continually seeks funding to improve the software and hardware infrastructure. Internally, we are exploring ways to make the IR sustainable and such can be achieved if members of staff in the university can support the Library in preserving the “institutional memory”. The IR project might have started out with content from small early-adopter groups, but more importantly let us all make an effort to populate the repository. Who doesn't want to see a comprehensive compilation of our faculty scholarship record? Let the journey begin now.

10. REFERENCES:

1. Brophy, P., and Frey, J. (2006) "Digital Curation Centre Externally Moderated Reflective Self-Evaluation Report". Digital Curation Centre.
http://www.dcc.ac.uk/docs/DCC_Evaluation_Report_Final.pdf
2. Core Requirements for Digital Archives. (2007) Digital Curation Center, Digital Preservation Europe, NESTOR, and Center for Research Libraries.
<http://www.crl.edu/content.asp?11=13&12=58&13=162&14=92>
3. Christopher A. Lee and Helen R. Tibbo (2007) Digital Curation and Trusted Repositories: Steps Toward Success Journal of Digital Information. Vol 8(2)
4. Drake, Miriam A; Institutional Repositories: Hidden Treasures Information Today Vol. 12 No. 5-May 2004.
5. DSpace. www.dspace.org.
6. http://en.wikipedia.org/wiki/Digital_curation
7. Pennock, Maureen and Lewis, Stuart; “Institutional Repositories: The new University
8. challenge” ALISS Quarterly, April, 2007.
9. Satyabati Devi Thiyam; Edifice of Institutional Repositories in UNISWA Library: A Challenge 6th Convention PLANNER - 2008, Nagaland University, Nagaland, November 06-07, 2008.
10. Lynch, Clifford A. “Institutional Repositories: Essential Infrastructure for Scholarship in the Digital Age” ARL, no. 226 (February 2003): 1-7. <http://www.arl.org/resources/pubs/br/br226/br226ir.shtml>
11. Ziphos: Building an Institutional Repository-challenges for University of Swaziland (UNISWA), paper presented on workshop held in UNISWA December, 2007.
12. University of Swaziland, <http://library.uniswa.sz/>
13. Digital curation life cycle model (Accessed on 30 December, 2012) <http://www.dcc.ac.uk/digital-curation/planning-preservation>