

Electronic theses and dissertations (ETD) as unique open access materials: case of the Kenya Information Preservation Society (KIPS)

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1. Introduction

Today, access to scholarly research is improving as a result of the growth of institutional repositories and associated IT developments. An increasing number of academic institutions are encouraging students to submit theses in electronic format which as a result become increasingly visible within the competitive research environment. Theses and dissertations represent a global source of research information. Most research emanating from lesser-known institutions (such as those in developing countries) may be less likely to be published in renowned journals. It is therefore important to create this kind of information in electronic form, making it readily available and accessible via the institutions' websites and the World Wide Web. According to Vlachaki and Urquhart (2009), electronic theses and dissertations (ETD) initiatives have proven that e-theses and dissertations can be created using relatively cheap and available technology that use standard, ubiquitous and free software programs.

In developing countries like Kenya, there are relatively few theses available in electronic format via the internet/institutional websites. Consequently, some of the most innovative research output in Kenya is virtually invisible. Theses and dissertations have been extremely underutilized sources of information due to lack of physical availability. Development of ETDs basically provides the opportunity for theses and dissertations to be recognized as a basic channel for the dissemination of research findings and an essential resource for facilitating open access while enhancing optimal access for future information seekers (see Table I).

Today an increasing number of academic institutions are encouraging students to submit theses in electronic format. In addition to paper copies, institutions of higher learning require electronic versions to be made available for inclusion in institutional repositories, while many institutions are also scanning/digitizing older versions of theses in order to make them freely available on the internet. A good example is the initiative of the Kenya Information Preservation Society (KIPS) which will be assessed later in this paper. ETD is viewed as a renowned research area for consideration. Librarians should therefore be engaged in digitization of electronic collections that will provide this service to end users. Such approaches boost the knowledge economy of any country.

This paper reports on the initiatives of the KIPS project that focuses on the digitization of theses and dissertations. KIPS is a registered society concerned with the preservation and conservation of theses and dissertations as an important part of Kenya's national information heritage. Since 1999, KIPS has been compiling a database entitled, *The Union List of Theses and Dissertations held in Universities and research institutions in Kenya*. Currently, KIPS has produced three union lists; Union List, Issue no. 1 (March 2003), Union List, Issue no. 2 (March 2005), and Union List, Issue no. 3 (March 2008).

Since 1999, the KIPS initiative has gathered strength across Kenya, with the success of 24 contributors representing universities and notable research institutions. A notable boost for the Union List will be realized when it is mounted on a website with the initial inclusion of Issue no. 3 which currently has 11,343 entries from the 24 contributors. It is worth noting that one of the most interesting aspects of KIPS is its

overwhelming commitment to the principles of open access.

2. Defining open access

According to the Public Library of Science online, an open access publication is one that meets the following two conditions:

The author(s) and copyright holder(s) grant(s) to all users a free, irrevocable, worldwide, perpetual right of access to, and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship, as well as the right to make small numbers of printed copies for their personal use.

A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in a suitable standard electronic format is deposited immediately upon initial publication in at least one online repository that is supported by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, interoperability, and long-term archiving.

According to Bailey (2006) "There are a variety of definitions of 'open access,' and the concept is still evolving; however, several key documents, which build upon each other, collectively comprise the best current definition of this term." Open access applies to publications that are freely available on the public internet, "permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those

Table I.
Some ETD initiatives in Africa

Source	Description + URL	Geographical placement
Adolescent Reproductive Health Network (ARHNe)	Contains theses and dissertations from Makerere University, some South African and other universities. www.nutrition.uio.no/ARHNe/ [KF] www.nutrition.uio.no/ARHNe	Uganda
CODESRIA. List of theses sponsored by CODESRIA	Contain lists of theses funded by CODESRIA (Council for the Development of Social Science Research in Africa)	South Africa
DATAD	Contains citations and abstracts for theses and dissertations completed in African universities. Full access requires a subscription. Participating universities are from Cameroun, Egypt, Ethiopia, Ghana, Kenya, Mozambique, Senegal, Tanzania, Uganda, and Zimbabwe. www.aau.org/datad/database/login.php , www.codesria.org/Links/Training_and_Grants/list_of_theses.htm	Accra, Ghana
Kenyan Resources Database	“Aimed at available bibliographic information of theses and dissertations that have significant research carried out on or in Kenya.” Located by author, title, institution, year, and blocks of years: http://kenyadb.freeservers.com/	Kenya
Histoire de l’Afrique de l’Ouest	Contains graphs and statistics on theses production. The website has support from the Agence universitaire de la Francophonie. [KF] www.histoire-afrique.org/	West Africa
Networked Digital Library of Theses and Dissertations	Contains abstracts and full text theses and dissertations by language – Afrikaans, Northern Sotho, Tswana, Tsonga Based at Blacksburg, Virginia. www.ndltd.org/ , http://alcm.e.oclc.org/ndltd/index.html	–
Register of Namibian Theses	Database of theses about Namibia.[KF] http://greenstone.unam.na/gsdll/cgi-bin/library	Namibia
ResearchKenya.org	“A Union List of Theses and Dissertations held by Universities and Research Institutions in Kenya by the Kenya Information Preservation Society (KIPS).” Includes theses completed for institutions located outside of Kenya and theses written by non-Kenyan scholars www.researchkenya.org/	Kenya

inseparable from gaining access to the internet itself.”

The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities states that institutions should implement a policy that requires their researchers to deposit a copy of all of their published articles in an open access repository, and encourage their researchers to publish their articles in open access journals where a suitable journal exists, and provide the support to enable that to happen.

Open access publishing is realized when the full text of the electronic thesis is freely accessible worldwide on the internet after the committee’s final approval and subsequent submission of the research work, enabling wider dissemination of scholarly information and acceleration of research.

2.1 Why is open access important?

Open access to digital theses and dissertations leads to wider dissemination of information and increased efficiency in

variety of disciplines, by providing open access to ideas. Whether you are a patient seeking health information, an educator wishing to enliven a lesson plan, or a researcher looking to formulate a hypothesis, making papers freely available online provides you with the most current peer-reviewed scientific information and discoveries, and open access to the broadest audience. As a researcher, publishing in an open access publication allows anyone with an interest in your work to read it, and that translates into increased usage and impact.

3. Digitizing theses and dissertations

An ETD is simply the digital representation of a thesis or dissertation. An electronic thesis is similar to its paper counterpart in organization, and basically meets the formatting requirements described by the affiliated institution. ETDs can be “born digital” by way of using a word processing program like MS Word, WordPerfect, WordPro, etc. The documents composed in word-

processing or other packages can easily be converted to PDF, Postscript, or marked-up in HTML/XML using appropriate software tools. They can also be created by way of a digitization process done through imaging or scanning the print copies of the theses and uploading them to a database using given software like DSpace, EPrints, FEDORA, Greenstone, etc.

Digitizing content and establishing institutional research repositories is a growing concern for university libraries. In total, 64 percent of African libraries have developed an institutional repository, and over half have developed some form of online publishing facility (see Table I). At a Continental level, the Association of African Universities manages the Database of African Theses and Dissertations (DATAD), which is now being expanded to enable full-text documents to be uploaded locally by librarians, either in original digital form or scanned from print. African Journals Online is another notable initiative which has made a major contribution to the availability of African published

material, both within and outside of the continent, through a journal hosting platform and document delivery service.

3.1 Benefits of ETD

Digitization of theses offers the following benefits:

- Creates a one-stop shop for resource discovery for theses in affiliated institutions.
- Provides direct links, free at the point of use, to the full electronic text.
- Increases the number of e-theses initially available, thus enhancing institutional repository content.
- Extends partnerships and resource sharing among academic institutions.
- Addresses the higher education community's concerns, identified by independent evaluation, regarding the management of third-party rights and the detection of plagiarism.
- Scales up an institution's technological infrastructure for the move from prototype to "live" status.
- Monitors and tests relevant technology trends in order to identify those technologies which an ETD project may be able to adopt in the future to improve further the management of e-theses and consolidate the embedding of the service.
- Increases the velocity of circulation of research in the country.
- Increases the impact of institutional research.
- Has the ability to reduce and eliminate the costs of printing and

binding, although the faculties may require a copy for review and departmental archives.

4. Digital theses and legal issues

Copyright issues associated with digital theses and dissertations raise distinct challenges for the success of any ETD project. The copyright of theses basically remains firmly in the hands of the thesis writer before and after the act of submission of the print or electronic format. The author decides how the work will be modified, reproduced, or distributed to the public. In most cases it may require the owner of a thesis to transfer his/her rights to the examining institutions as a condition of the award of the degree. Even though such a requirement is theoretically possible, it is rarely placed on the thesis writer by most universities.

Vlachaki and Urquhart (2009) point out that print theses are generally held in a library and are subsequently made available for consultation in fairly restricted circumstances (such as placement in the Africana section in public university libraries) and may not be able to be photocopied nor loaned out of the library! Consequently they remain unpublished, even though they are to some extent exposed to the public view.

5. An overview of the KIPS

KIPS is a non-profit-making organization by way of registration since its inception in 1993. KIPS is concerned with the preservation and conservation of

Kenya's national information heritage. It has been compiling the *Union List* database containing details of theses and dissertations reflecting research on a diversity of aspects in Kenya and by Kenyans. The database is entitled *The Union List of Theses and Dissertations held by Universities and Research Institutions in Kenya* (see Table II and Figure 1).

It is important to note that theses resulting from postgraduate degrees have been/are being awarded by not only Kenyan universities but also overseas institutions. By the time of preparing this paper, KIPS had a collection of approximately 15,000 citations in the database, a clear indication of success in capturing research content. KIPS contacts institutions expressing an interest in contributing records of theses that are held by Kenyan universities and research institutions to the *union list*. Retro-conversion of theses is carried out by way of scanning the title page and abstract of the theses, a copy of the same is added to the institutional repositories, and another is uploaded to ProCite. At present there are 24 organizations contributing records to this unique research tool. The database reflects research undertaken on all disciplines in Kenya. The database does not include the full text, but only bibliographic details and abstracts. KIPS does not hold the print theses, but these are available in the various institutional libraries serving as custodian.

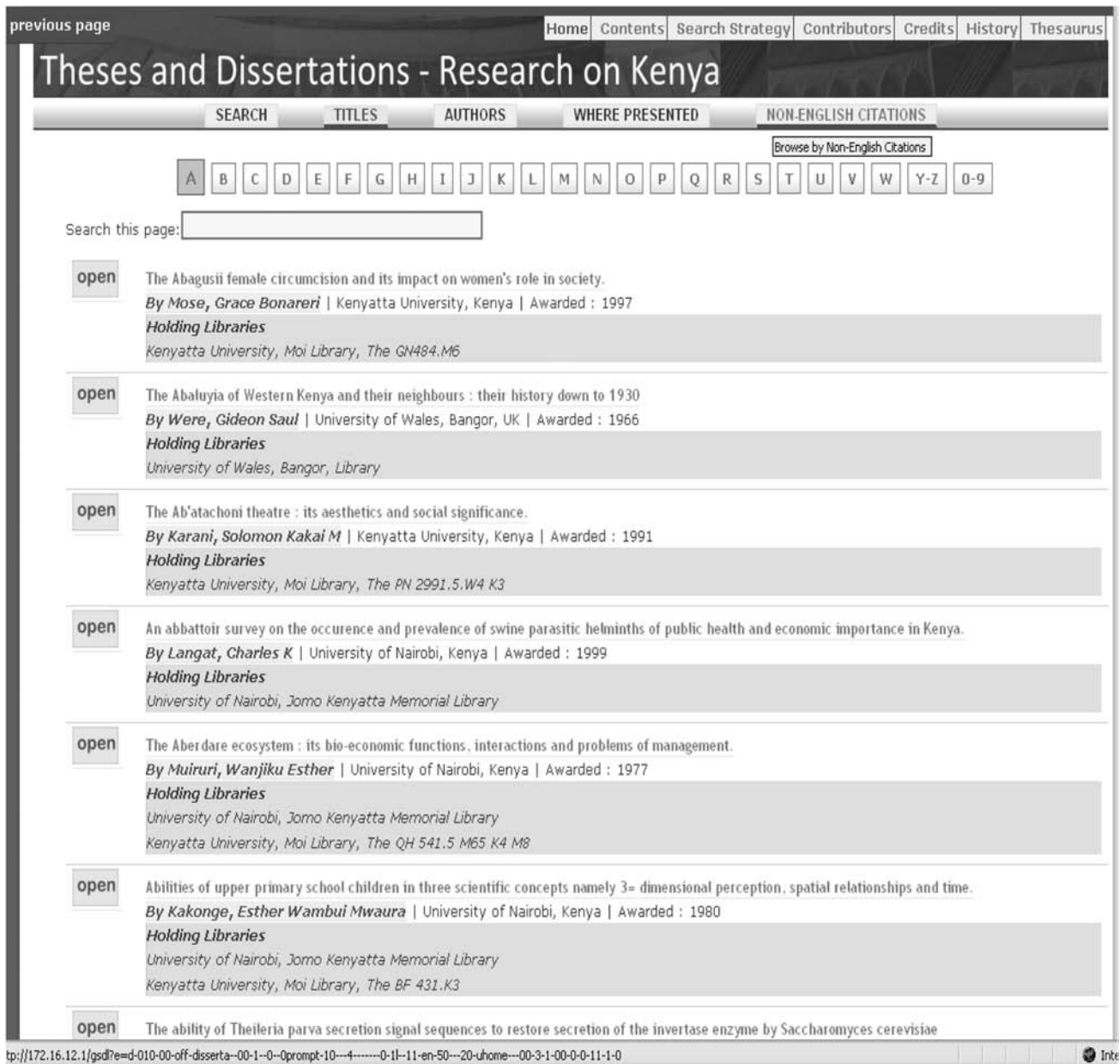
KIPS uses ProCite, a bibliographic software for the database. Universities are required to submit the details of theses in ProCite. Kenyatta University

Table II.

Some contributors of publication to the KIPS database

No.	Name of institution	Publications contributed	%
1	Catholic Higher Institute of Eastern Africa, Kenya	3	0.03
2	Catholic Higher Institute of Eastern Africa, Kenya	3	0.03
3	Catholic University of Eastern Africa, Kenya	58	0.5
4	Daystar University, Kenya	114	1
5	Egerton University, Kenya	218	2
6	Jomo Kenyatta University of Agriculture and Technology, Kenya	139	1.2
7	Kenya Polytechnic, Kenya	1	0.01
8	Kenyatta University College, Kenya	3	0.03
9	Kenyatta University, Kenya	1,861	16.4
10	Moi University, Kenya	98	0.9
11	Nairobi Evangelical Graduate School of Theology, Kenya	74	0.7
12	United States International University-Africa, Kenya	286	2.5
13	University of Eastern Africa, Baraton, Kenya	27	0.2
14	University of Nairobi, Kenya	5,179	45.7

Figure 1. Searching the KIPS database



and University of Nairobi have been active in contributing to the database; a practice which other institutions should emulate in order for the building of a viable research base.

5.1 Main objectives of KIPS

- To compile a national comprehensive database of research on Kenya undertaken at a postgraduate university level.
- Intended to serve the needs of Kenyan scholars.

The funding of KIPS emanates from a grant of \$2,000 from the French Institute for Research on Africa in 2004 and another grant of \$2,000 from the Kenya National Archives in 2008. KIPS has also relied on income from membership payments to cover most of the project's expenses.

5.2 The Union List of Theses and Dissertations Database

KIPS *Union List of Theses and Dissertations Database* has been published in CD-ROM format. Issues nos. 1 and 2

of the Union list were published in March 2003 and March 2005. Issue no. 2 included all entries that appeared in Issue no. 1 as well as the new records. Issue no. 3 includes all entries in Union List Issues nos. 1 and 2. The possibility of mounting the database on a website is in the process of being explored.

It is worth noting that as of March 2008, 11,343 records had been entered in the database. Abstracts are included when made available by the contributing institutions. It is envisioned that KIPS would like to ensure that abstracts accompany each citation.

A significant number of theses and dissertations are not yet in the *Union List*, including those reflecting research from earlier years and research of the most recent years. KIPS is working toward including these categories of materials in order to ensure a more comprehensive and inclusive database. Table II shows some contributing institutions in Kenya and the number of publications submitted, along with the percentage of the total contribution, as of 2008.

Available statistics (although not exhaustive) indicate that the 24 contributing institutions include 12

universities, eight research bodies, the Kenya National Archives, the Kenya National Library Service, the National Museums of Kenya, and University Microforms International, USA. There are two institutions with an outstanding rate of contribution. Kenyatta University stands at 16.4 percent (1,861 publications) while University of Nairobi has the highest number of publication contribution at 45.7 percent (5,179 publications). The lowest contributor, Kenya Polytechnic stands at 0.01 percent (1 publication). This shows that publication contribution to the

Union List of Theses and Dissertations is quite below expected standards. KIPS should thus embark on employing sound marketing strategies to reach a wider audience of contributors who would in turn enhance the fulfillment of the stated objectives.

5.3 Searching the database – by title/author/subject

Figure 1 shows an example of a search of the database by title/author/subject.

Figure 2. Search results for the theses-abstract

The screenshot shows a search results page for a thesis. At the top, there is a navigation bar with links: Home, Contents, Search Strategy, Contributors, Credits, History, Thesaurus. Below this is the title 'Theses and Dissertations - Research on Kenya' and a search filter bar with options: SEARCH, TITLES, AUTHORS, WHERE PRESENTED, NON-ENGLISH CITATIONS. The main content area displays the following information:

The Aberdare ecosystem : its bio-economic functions, interactions and problems of management.	
Author	Muiruri, Wanjiku Esther
Year of Award	1977
Awarding Institution	University of Nairobi, Kenya
Level of Degree	PhD
Supervision	Geography Department. Advisers: Reuben B Ogendo/A R T Hove/John O Kokwaro
Subject Terms	<p>Click on a term to see other documents with the same subject term</p> <ul style="list-style-type: none"> Aberdares National Park, Kenya Aberdares, Kenya Conservation Ecosystems National parks
Pagination	334 p.
Where Held	University of Nairobi, Jomo Kenyatta Memorial Library Kenyatta University, Moi Library, The QH 541.5 M6S K4 M8

Abstract

The 'raison d'être' of this study is the search for a sound conceptual base upon which to pivot and direct rational management decisions for the Aberdare Forest and National Park. The general research activity revolved around critical evaluation and analysis of the various physical, bio-economic and human factors that should constitute the fundamental information sources for the utilization and management of the resource unit. There were three (3) specific objectives.

Firstly, to attempt a conceptual definition of the study area as an ecosystem. The size of the area, the spatial and temporal arrangement and dynamics of its major resource sub-systems, and the superimposition of artificial administrative and management boundaries by man, were regarded as the significant variables that determine the study area's viability as a functional ecosystem.

Secondly, to critically evaluate the role of the human factor in determining the bio-economic status of the Aberdare system and its resource units. This role was seen as being manifested at two levels:

1. Through different and/or conflicting attitudes and preferences towards the area and its resources by the rural people who live within the Aberdare Forest as resident workmen, and around it as farmers.

5.4 Search results – abstract and bibliographic details of the author

Figure 2 shows an example of a search by abstract and bibliographic details of the author.

6. Conclusion

While the debates on open access continue, librarians in academic institutions can basically play an important role to help achieve faster and wider dissemination of research discoveries and new knowledge- of which they have been disseminators and keepers for many centuries.

Theses and dissertations are rich and unique sources of information. At present, the vast majority of theses and dissertations in most developing countries are still stored as print copies and are only made available for consultation within the university libraries, and do not find their way to publication. An increasing number of university libraries have been expressing interest in participating in the ETD projects in order to showcase the intellectual capacity of the faculty, graduates, and scholarly community. This promotes access, easy consultation by users, and dissemination to a wider scholarly audience. The ETD projects may be costly and time consuming but at the end, the advantages outweigh the

disadvantages. It is asserted that digital theses and dissertations massively increase the impact of institutional research, an essential consideration at a time when evidence of the impact of research is becoming an all-important factor in research evaluation, and therefore in future funding.

Despite the sporadic initiatives of KIPS and a handful of other organizations, Kenya neither has a comprehensive and authentic source of information nor a foolproof mechanism to obtain information on all postgraduate theses and dissertations submitted to the universities in Kenya. Such a situation calls for a regulatory framework essentially charged with creating a National Database of Theses and Dissertations for Kenya that initiates the compulsory process of electronic submission of theses and dissertations in universities.

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FURTHER READING

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