



Reconstruction@Maklib with minimal resources

Maria G. N. Musoke

(PhD) Professor of Inf. Sc. and University Librarian,
Makerere University
Kampala, Uganda
E-mails: mmusoke@mulib.mak.ac.ug
maria.gnmusoke@yahoo.com

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Abstract :

The paper presents the experiences of Makerere University Librarians in trying to reconstruct the library services, with minimal resources, to ensure that the Library remains relevant and central to the academic life of the University. Efforts to reconstruct the library to enable its users to benefit from the opportunities created by the digital information age are highlighted giving examples of the achievements, challenges faced and how they have been addressed, as well as lessons learned. One of the key lessons is that investing in building the capacity of librarians to drive the reconstruction process and to sustain it is a key factor in all the achievements recorded. The paper also highlights the importance of collaboration and networking among librarians, as well as support from the University administration and Development partners. Indeed some visible and tangible reconstruction is possible with minimal resources, but with determination and focus, as 'we build for the future'.

1. INTRODUCTION

Makerere University's motto is 'We build for the future', and it has indeed continued to build and rebuild what was destroyed during the civil wars and turmoil of the 1970's and 1980's. Makerere University's past reputation is slowly being regained as seen from the periodic webometrics ranking of Universities where Makerere has been steadily improving. The improvements have attracted students from the different parts of the world and Makerere has continued to build for the future of Uganda and beyond as the University's current (2009/10) admission list shows. Makerere

University's admission has raised to over 32,000 students (of whom over 1,000 are graduate students) from Uganda, Kenya, Tanzania, Rwanda, Burundi, Botswana, Congo, Ethiopia, Ghana, Liberia, Nigeria, Sudan, Somalia, South Africa, Britain, China, Germany, Norway, Philippines, Sweden, India, Iran, etc. The University has 112 departments and over 1,000 academic staff.

Makerere University was established in Uganda in 1922, making it one of the oldest public Universities in Africa. Initially, it was a University College of London, then a University of East Africa, and later, it became a national University. Earlier in 1958, an Act of Uganda's Legislature made Makerere University Library the first legal deposit unit in Uganda. In 1972, Makerere University Library (Maklib) became the National Reference Library in addition to its primary role of serving the highest academic institution in the region. Maklib comprises of the Main Library and eleven branch libraries. For Makerere to continue excelling in its provision of quality higher education, it has had to maintain its Library and information services as one of the key priorities in its previous and current (2008-2018) Strategic plans (Musoke, 2008).

Traditionally, University libraries' primary users are university students, faculty/academics, researchers and other administrative and support staff. However, most University libraries in Africa also extend their services to users from outside the University community as some of these Libraries also play a role of a National Reference and/or legal deposit Library. Furthermore, given the fact that University libraries are comparatively better resourced than most other institutions, University libraries have extended their service to the research communities as well as practitioners outside the Universities. This paper will focus on the multiplicity of roles of Maklib and how the librarians have tried to reconstruct the services amidst challenges of minimal resources as the country has been recovering from a civil war.

Maklib has continued to play a leading role in Uganda, and in 2001 when Ugandan institutions started subscribing to electronic journals, Maklib became Uganda's National coordinator for electronic resources (e-resources). The e-resources are paid for jointly to benefit Universities and research institutions in Uganda (country access). Among other things, Maklib has the responsibility of mobilising other academic and research institutions in sustaining the subscription of e-resources, and it monitors and evaluates the usage of e-resources at country level (Musoke and Kinengyere (2008). Furthermore, Maklib conducts periodic information literacy and practical training sessions for librarians, academics and researchers in the use of global and local information resources.

The growing number of University students, the increase in study programmes coupled with paradigm shifts in, for example, curriculum and research, the increase in research and the rapid ICT developments have all changed the routines of traditional academic librarianship. The changes are very demanding in a Sub-Saharan African University environment where shortages of facilities and infrastructure are very common. These changes and demands, therefore, need an innovative librarian who, by using various initiatives, networks, partners and collaborations, would reconstruct the library to try to meet the never-ending needs of academic library users.

Many library users, visiting librarians, scholars, development partners, etc have reported that Maklib has been reconstructed in the past five years almost beyond

recognition. At the entrance, the wooden catalogue has been replaced by MakULA (Makerere University Library Access) terminals, which provide the Online Public Access Catalogue (OPAC), retrospective records conversion of over 300,000 titles of books has been completed, the Local area network has been extended both in the Main and branch libraries, and more computers have been procured while obsolete ones get replaced, a Closed Circuit security system has been put in place, a digital institutional repository and a music archive set up, an automated circulation system established, more librarians have been recruited and trained, the Main library has been re-organised and space has been opened up as well as merging and moving all active sections of the Main library to Level four, a new wing (4,000 square metres) extension to the Main Library has been built and was opened in 2007, while construction of another 4,000 square metres started in October 2009 using Makerere University's internally generated funds. The subsequent sections of the paper elaborate on the above activities.

2. MAKERERE UNIVERSITY LIBRARY IN CONTEXT

According to the Act that governs Universities in Uganda (The Universities and other Tertiary Institutions Act, 2001), the University Librarian is one of the Officers of a Public University. The University Librarian, therefore, is a member of the University's Top Management, a member of Senate and some of its subcommittees, attends Council (the Governing body of the University) meetings and is a member of some of its sub committees e.g. ICT and the Administration and Selection Committee of the Appointments Board.

Before 2004, the post of University Librarian (or Director of University Library services) was on the 'permanent and pensionable' terms of service, which meant that one stayed in that post until s/he reached the retirement age of sixty or decided to resign. Although such terms of service give the incumbent librarian job security, they may not drive innovation and development that is so much needed in a poor resource institution like Makerere. Consequently, in 2004, Makerere University changed the terms of service for all its top administrative/management posts to a five year contract, renewable once depending on performance. This was, and still is, a welcome policy as it awakens managers to perform or else face the exit.

The author was the first University Librarian to be appointed under the new terms of service after the post was advertised and competed for in 2004. Advertising the posts of top administrators enabled women to compete. As a result, and for the first time, two Ugandan women became members of Makerere University top administration in its 86 years of existence. After the first five years, the author was reappointed for the next and last five years starting from January 2010. The generic responsibilities of the post of University Librarian are stated in the Act that governs Universities.

In addition to the responsibilities stated in the Act, the author has focused her work on (a) to initiate, innovate, plan and implement plans and policies to enable Maklib to achieve its aim of "provision of excellent library and information services to meet the study, teaching, research and outreach information needs of Makerere University for sustainable national and regional development". (b) To ensure that the Library remains relevant and central to the academic life of Makerere University. (c) to enhance the image of librarians as professionals in a digital information era. (d) To

inculcate professionalism, gender equity and other human rights values (e.g. disability) among younger librarians and mentor them to be pro-active future information managers.

The subsequent sections of the paper give examples of what has been achieved.

3 WHAT HAS BEEN DONE TO RECONSTRUCT MAKLIB?

In the recent past, there has been a global rapid growth of published works and improved methods of information processing and retrieval resulting from developments in technology. These advances have resulted in faster and better methods of accessing information in the developed world. However, in the developing countries, frustration resulting from limited information access continues as the cost of technological infrastructure and bandwidth remain prohibitive. Hence, innovativeness on the part of librarians is important if the above challenges are to be addressed. The sections below highlight examples of the activities that have enabled Maklib to address some of the challenges:

3.1 The Library has remained a priority in Makerere University's plans and activities. Harrison (1968) pointed out that: "The character and efficiency of a university may be gauged by the treatment of its Central Organ – The Library... An adequate library is not only the basis of all teaching and study, it is the essential condition of research without which additions cannot be made to the human knowledge." Although this statement was made decades ago, it remains relevant up to this date. The statement expressed a truism that has enabled Makerere University and its central organ, the Library, to attain a number of goals. At Makerere University, for example, a rigorous Strategic planning process was carried out to prepare the current ten-year Strategic plan for the period 2007/08 to 2017/18. Although the University refocused its priorities, Maklib presented a strong and convincing proposal, which enabled it to remain as one of the top priorities of Makerere University. Among other things, this is important because of the fundamental reforms required in the Libraries as a result of the Information age with its corresponding opportunities and challenges. Furthermore, Makerere University had to develop a compelling vision for learning in the 21st century, a vision that would reconstruct Makerere by re-aligning it with current developments in higher education, which place the Library at the centre of learning and refer to it as Learning and resource centre.

The importance of placing the Library at the centre of learning in a University has been highlighted by policy-makers such as the Inter-University Council for East Africa, the Uganda National Council for Higher Education, and by several African University Librarians (Nawe, 2002; Musoke, Kakai & Akiteng, 2005). In addition, Royall & Lyon (2008) pointed out that in an educational setting, the importance of access to library resources must be promoted from the very top and modelled from the top on down.

3.2. Capacity building of librarians to meet the needs of Makerere University

It is important to focus on and invest in capacity building as the availability of trained and skilled librarians is a key to the reconstruction of library services. Skilled librarians are the engine of the vehicle that has driven Maklib to the achievements so far registered. Indeed as Gilman (2007) pointed out "the notion that we need

professional librarians to run a modern University library is even more valid today than it was in Melville Dewey's age"¹.

The role of librarians in the current academic environment and information age is very diverse and essential as she/he displays skills and knowledge in providing library programmes, services and materials that are critical to the changing information needs of students, some of whom get admitted to Makerere University from rural schools with poor IT infrastructure and resultant limited IT skills. The librarians also support the academic staff who are engaged in lecture-room instructions, research and knowledge creation, of whom the older generation need more support with IT facilities. Consequently, the librarians need both the intellectual ability and skills to enable them to accomplish key objectives that are aimed at providing the needed information in a digital age. It is, therefore, evident that the historical role of librarians is changing as librarians are now proactive, multi-tasked and multi-skilled to be able to deliver high quality information services to meet the needs of users. For example, the traditional manual services such as current awareness and selective dissemination of information are now provided electronically. Library users are guided by the librarians, on how to register with publishers to get tables of contents pop up on their e-mails whenever a selected new journal issue is out.

Capacity building of MakLib staff has included training in various aspects of the state-of-the-art academic librarianship. Some of the training was conducted at Makerere by experienced librarians from developed countries. Such training is cost-effective as all the librarians at Maklib are trained and within their work environment. However, that training was complemented by visits to various University libraries in Africa (e.g. University of Pretoria, Cape Town, KwaZulu Natal in South Africa, University of Botswana, University of Dar es Salaam, University of Nairobi, etc), and the developed world for attachments ranging from one week to three months to get hands-on training and observe best practices at the University of Bergen (Norway), University of Uppsala (Sweden), University of Tennessee (USA), Case Western Reserve University (USA), National Library of Medicine (USA), Kent, Surrey and Sussex Library and Knowledge services (UK), Partnership in Health Information (UK), etc. Librarians have also attended various short courses for example the Mortenson Center for International Library programs at the University of Illinois (USA), the LATINA course at the University of Oslo (Norway), and the workshops conducted by the International Network for the Availability of Scientific Publications (INASP). Librarians have attended various other workshops, conferences and academic training at Masters and PhD levels.

In August 2009, for example, five Maklib librarians attended the IFLA main and pre-conference in Milan, Italy, and each of them presented a paper (Ms Kakai, Ms Nakiganda, Ms Tumuheirwe, Ms State and Dr Musoke). Maklib, therefore, contributed five out of the seven papers presented by Ugandans during that conference. On 5th September 2009, the Chairperson of the Uganda Library and

¹ Todd Gilman, a librarian for literature in English at Yale University's Sterling Memorial Library. His article entitled "A matter of Degrees", 2007; distributed on the Uganda Library Association listserv.

Information Association (ULIA) wrote on the ULIA listserv congratulating the University Librarian “for inspiring and supporting Maklib staff to generate papers”.

Supporting librarians to write papers and attend international conferences or get short attachments to well resourced libraries to learn new skills is very important and bears a lot of fruits. The practice at Maklib is that on return, every librarian, who has attended training, makes a presentation to all professional librarians indicating what s/he learnt during the conference/training and how s/he is going to apply what s/he learned to library work. After the dissemination sessions, further sessions are conducted for those who would like more in-depth information or hands on, while the implementation process starts. Maklib has gained a lot from these sessions.

Maklib’s policy is to support librarians to conduct research relevant to Makerere University’s strategic objectives so that the research results are used to improve service delivery. As librarians, we pride in making changes or introducing new ideas basing on research results. We know that research which ends in theses/dissertations or research reports, that are not read by policy makers and other change agents is no good. So, we have used research findings in various ways, for example: the findings from the Masters degree research work on the management on music collections have supported the newly established music archive. The author’s PhD research findings highlighted, among other things, the shortage of qualified medical/health science librarians in Uganda. Consequently, the author introduced an elective course entitled “Health information systems and services” at graduate level. The course has been conducted at Makerere University School of Library and Information Science since 2002 and over twenty graduate librarians have attended the course. The graduates are now heading various health information units in the country and two of them are working at Makerere University Medical Library. There is demand for this or a similar course to be introduced at undergraduate level. In addition, a post-doctoral activity entitled ‘Rural outreach health information literacy programme’ was started. During the outreach, sessions are conducted to demonstrate the available information resources which rural health workers could access directly or indirectly by making requests for document delivery from Maklib. Another post-doctoral activity by the author is a cross-cutting course entitled “Information competency and Management” for graduate students and researchers aimed at imparting skills in identification and retrieval of relevant literature, organisation of literature and presentation of research output. Such research based activities give Maklib staff visibility among the University academics and administrators as well as building the image of librarians.

Whenever Maklib makes recommendations/proposals to University Management, Senate or Council for improved library services based on research data, best practices and international standards, it is not easy to challenge such proposals. For example, the architectural design of the new library building extension did not have facilities for Library users with Disabilities (LUWD). When Maklib presented a proposal to the Committee and pointed out that international standards require that library buildings, constructed in this era of respect for human rights, should have facilities for LUWD, the architect revised the drawing. Consequently, the new extension to the Main Library was the first building at Makerere campus with all the facilities for LUWD (toilet facilities, ramps, computer laboratory with appropriate software, furniture, reserved space in the Library, lift, etc.).

In all the above activities, Makerere University librarians gained the knowledge and skills needed to implement modern library projects. The knowledge and skills have been acquired over a period of time and from various collaborations with librarians from the different parts of the world and support from Sida/SAREC, Carnegie Corporation of New York, NORAD and other Development partners (Dewey, 2006; Ford & Schnuer, 2006; Musoke, 2008; Londoy & Musoke, 2009).

The acquired knowledge and skills, through continuous professional development, have been enhanced by the hands-on practice that has resulted into 'champions' at MakLib. This has had a multiplier effect as the multi-skilled librarians are now training others within and outside Uganda (e.g. Juba Library Automation Project in Southern Sudan, Sokoine University library Digitisation project in Tanzania and the Nigerian University libraries using Virtua). The experience of Maklib has shown that staff capacity building is not only important to the implementation of ICT library projects but also to the sustainability of such projects as the skills and knowledge acquired do take the process forward.

3.3 Increased number of librarians, specialisation, team work and welfare

An increase in the number of librarians, specialisation, welfare, recognition and team work have been important to the reconstruction of Maklib.

The previous section highlighted the quality and capacity of librarians. Equally important, is the number of librarians. Both the number and capacity have been key to all the activities that have been successfully implemented. Automation is labour intensive, and it was a new activity that had to be learned as librarians moved on. Once the main aspects of automation are implemented, there is need to continually guide library users.

However, in 2004, there was an embargo on recruitment. Maklib has an establishment of 72 librarians but there were only 25 librarians. The author appealed to the responsible committee to lift the embargo, and since then twenty-five graduate librarians have been appointed (in 2006 and 2007), and eight temporally librarians have been recruited to assist in the on-going library automation work.

Specialisation:

Furthermore, for the first time, an Agricultural librarian and an archivist were recruited in Maklib service to manage the Agriculture library collection and the rich archival collection respectively. The on-going implementation of the Library system archival management module has been possible because of the presence of the archivist. Furthermore, a Music librarian has been identified and trained on the job. The archivist works with the Music librarian, and they both work with the librarian in charge of Digitisation to implement the newly established digital music archive.

Balancing support from the old and younger librarians:

While maintaining support of older/senior librarians, it is important to invest in younger librarians. Investing in the younger generation of librarians is good for succession planning, but it is also strategic as most younger people easily take up new initiatives and IT developments, accept challenges and are more willing to learn from mistakes. It is, therefore, important to have some older/senior librarians guiding and

supervising the younger professionals. At Maklib, there are 33 librarians below 40 years, and 17 above 40, and this has worked out well.

Welfare:

By April 2010, Maklib had 176 staff (librarians, library assistants and other support staff). An informal staff welfare association was started to assist Library management to handle some of the social and routine issues of support staff. Two general meetings are held in March/April and July/August. There used to be one general staff meeting, but the agenda was too long. So, the author introduced the March/April meetings which includes a training session to benefit all staff, and the most recent training was about fire preparedness by a Senior Police officer. At the end of the meeting, there are refreshments, music, dance and informal interaction, which staff like.

An End of year/Christmas party is also held on the second Friday of December. Since 2005, the author introduced a budget line for a Christmas take home package for all staff and many letters of thanks/appreciation have been received from staff. The author also introduced the exchange of gifts to bring staff closer to each other and try to create the warmth that comes with gift exchange. This also brings some excitement during the party.

There are several other welfare activities that are budgeted for to support staff given the poor pay and the hard working conditions.

Team work and achievement drive:

Maklib Heads of sections and branch libraries are involved in all the planning of the library and their specific activities. They prepare section/branch library annual work plans which are presented and discussed in a meeting of all Maklib Heads every November. During the two day meeting, each Head also presents an annual progress report highlighting the achievements and challenges. In the past, some Heads were focussing on the challenges which hindered them from implementing part of their work plans, and in a way, this tended to overshadow the achievements.

In 2008, Maklib Management decided to change the strategy and focussed on 'achievement drives and innovations' rather than challenges per se. Furthermore, an award of honour (Certificate, trophy, etc) was introduced and is competed for by all Maklib sections and branch libraries. The winner is that section or branch library that implements most of the activities it set out to do that year and/or one that was innovative in addressing challenges in library service delivery. As this is a sharing and learning session, the sections/branch libraries highlight the achievement drive (the supporting factors that enabled them to achieve the activity) so that others can learn/apply in their work. At the end of the meeting, Maklib Heads decide on the winner and the runner-up in a transparent way. This has resulted in positive competition that has enabled Maklib to achieve most of its annual planned activities, as well as supporting the timely implementation of library projects.

In addition, the library system statistics clearly indicate the records input by different librarians. Every end of the year, two librarians who input the highest number of quality records are recognised, and they attend the Virtua Integrated Library system Annual Users' Group meeting held in different parts of Europe. This has improved both the quality and number of records in the Library system.

3.4 New information resources and equipment established/set up and others expanded

i. Music Digital archive

For the first time, a digital music archive of Ugandan music was established in 2006, although the Department of Music Dance and Drama was established in 1971 at Makerere University. To be able to manage this collection, there was need to identify and train a music librarian who would then collect, organise and digitise the collection. The University of Bergen provided the hands-on training, while Makerere University supported the librarian to do a Master's degree in Information science and her research focussed on the management of music collection, as already reported. An archivist has also been trained to provide support to the Music librarian. The Music archive is hosted in the New Main Library building. By 31st March 2010, there were 1577 digital songs of 1940's and 1950's, 20 digitised cassettes of ethnomusicology, and other digital recordings preserved in the Music archive.

ii. Digitising local content

As pointed out in the introduction, Maklib also acts as a legal deposit and National reference library in Uganda. As a result, Maklib has a rich collection of local materials and research works (gray literature or unpublished work available in different forms: theses and dissertations, research articles, research reports, conference and workshop reports) relevant as reference sources of information for further research and teaching. However, these works had not been widely known and their accessibility had been limited due to a number of factors, i.e. being available in unpublished singular paper copies, located in only one physical place, and these are compounded by the climatic conditions (hot, dusty), quality of paper and/or age, which limit their usage.

With the on-going implementation of the archival management module of the Virtua Library system, the bibliographic details of archives are currently being entered into the Library system. Although the bibliographic information about the archives is available online, this does not solve the accessibility and conservation issues of the archives and other institutional materials.

Furthermore, given the current demand for online information at Makerere University, and the strong emphasis on access to local knowledge and information in the Ugandan education system, Maklib decided to play a pivotal role in delivering content in digital form to increase access and use by the University community, and the world at large. In June 2006, the Library launched Makerere University's institutional repository, known as the Uganda Scholarly Digital Library (USDL) after a pilot phase of one year. Two librarians were initially trained by Maklib partners at the University of Bergen (Norway) and the University of Tennessee (USA). The two librarians have since trained eight more librarians. USDL is operated on internationally recognised standards and uses an open source software (DSpace). The DSpace software is a popular Open Source Software (OSS) being used by many institutions in the developing and developed world. Before selection, many OSS were evaluated to establish whether DSpace would meet the needs of Makerere. It was found sound and highly supported by the user community. The DSpace system provides for indexing of information by text, author, title, subject, keyword, abstract and full-text (when customised). Full-text information on local servers, accessed on the intranet at

Makerere, is one of the strategies of addressing the local bandwidth and connectivity issues. USDL distributes the digital content over the web through the USDL website <http://dspace.mak.ac.ug>, with the objective of fostering collaboration with other institutions in Uganda and beyond, thereby expanding the knowledge spectrum and furthering research. The records in USDL have increased Makerere University's visibility on the web and the University IT staff reported that: "The USDL is even more highly ranked than the primary University website"². This communication added recognition to the work of Maklib. At the end of 2009, Maklib proposed to input 800 - 1000 records in USDL this year (2010) as part of its work plan. By 31st March 2010, however, over 630 records had been added and were visible to the public; hundreds were being edited before they could be available to the public. This is an example of an exciting milestone given the fact that Maklib estimated to add 800-1000 in a year.

Like other countries in the WHO-AFRO region, Makerere University Medical Library compiles local literature into the National (Uganda) health literature database, which inputs into the African Index Medicus (AIM). The database consists of abstracts of Ugandan literature digitized and indexed to become part of AIM. The database is steadily growing. The AIM coordinating centre is at the WHO Regional Office for Africa (http://www.afro.who.int/library/about_en/).

Furthermore, with the introduction of ICTs, some African University libraries started digitizing their dissertations/theses collections. For example, abstracts of dissertations and theses of ten University libraries in Sub-Saharan Africa have, since 2001, been entered in an international Database of African Theses and Dissertations (DATAD) available at <http://www.aau.org/datad>

Although the DATAD coordinating office at the Association of African Universities had closed for some years, data entry into DATAD continued as new materials are acquired within the University libraries. DATAD has abstracts, whereas USDL has full text. The above local databases complement each other.

iii. Retrospective records conversion

In 2003, Maklib procured a Virtua-Integrated Library System (ILS) including an Oracle server, and started the long process of converting the manual records. By the time of writing this paper, all of the records, except the archives, had been converted. This has been one of the greatest benefits of ICTs to the Library, Makerere and the world at large, in that it is enabling access to the Library collection online, availed at <http://libis.mak.ac.ug:8000/cgi-bin/gw-46-4-2/chameleon>. This has revolutionised access to library resources as library users no longer have to come to the library physically to find out what is available. The online library catalogue is just a click of a button away even from upcountry locations, where Internet access is possible. The onsite library users have grown accustomed to this electronic service and the OPAC terminals are occupied throughout the day.

Compared to the 54,000 items in the Library system in 2004, Library users had access to over 432,000 bibliographic items/records online representing over 360,000 titles (of

² Ndiwalana Ally, August 31st 2009 communication to the University community about the contributions of different units to the improved webometrics ranking of Makerere University.

books, monographs, microfilms, CDs, etc) by the end of March 2010. There were also 12,412 periodical holdings in the system. This has been achieved because of skilled and dedicated Maklib staff, and through funding from Sida/SAREC, NORAD, Carnegie Corporation of New York and Makerere University.

The change from the wooden catalogue boxes to the MakULA terminals shows transformation immediately one enters the Main Library. The strengthened ICT networks and user training are ensuring optimal use of an advanced integrated library information system.

iv. Electronic resources (e-resources)

These include journals and books (and the online catalogue outlined above). By 2000, Makerere University subscription to print journals had reduced to less than 100 titles for the whole university. To address the vacuum and with support from Sida/SAREC, e-journals were introduced to Makerere University in 2002 for the first time. The e-journal subscriptions have grown from 10 e-journal databases with about 8,000 full-text e-journal titles in 2002 to 22,000 journal databases (20 free) with over 20,000 full-text e-journal titles in all subjects this year (2010). Two of these databases, namely, Emerald and EBSCOHOST, are paid for through the Consortium of Uganda University Libraries (CUUL) since 2006. The e-journals are complemented by document delivery services to provide items that are not available. Regular end-user training is also conducted by Maklib staff. Consequently, the usage statistics of e-journals increased from 42,067 in 2006/07 to 241,353 downloads in 2008/09.

In addition, Maklib has procured some 271 titles of e-books initially in science and gender. The e-books are only accessible to Makerere University community (some e-journals have country access). The e-books are provided by Net Library at: <http://www.netlibrary.com>. Other e-books are provided for the College of Health Sciences via OVID and US National Library of Medicine. Considering the large number of students and programmes at Makerere University, acquiring multiple copies of print books would require a lot of funds (and physical space) to satisfy the demand. The e-books option, therefore, would be an essential complement to the existing print textbooks **if** (a) it provides for multiple access to the same book title at the same time, (b) the e-books can be archived on a local server to optimise bandwidth usage. At Makerere University, for example, the e-books metadata would be loaded on the Electronic Library Information Navigator system to further promote usage and fast access. The experience of Maklib is that these two conditions need to be addressed when making agreements for purchasing e-books, and Maklib is currently looking for publishers who would be interested in carrying this discussion forward.

Makerere University, therefore, has access to e-resources both via institutional subscription as already indicated and through collaboration and/or global initiatives which provide access to resources by Makerere University and other Universities and research institutions in Uganda free of charge (Musoke & Kinengyere (2008). The resources provided by collaborative and/or United Nations initiatives include:

- Health InterNetwork Access to Research Initiative (HINARI), Access to Global online Research in Agriculture (AGORA) and Online Access to Research in the Environment (OARE) or generally Research4Life.

- Medline resources accessed through Pub Med supported by the National Library (NLM). NLM also provides free access to the E-Bookshelf and Clinical Trials.

The above e-resources are accessed via: <http://mulib.mak.ac.ug/col-link/e-resources.html>

Access to the vast amount of current literature has brought the Ugandan academics and researchers almost at the same level as their counterparts in the developed world. This has greatly improved the quality of study/teaching and boosted the research output in Uganda and Makerere University in particular.

v. Equipment

By the time of writing this paper, Maklib had over 400 workstations (and 150 on order), 15 Servers, 60 sun ray terminals, LCD projectors, scanners, laptop computers, photocopiers, digital cameras, etc which were acquired to enhance access to library resources as well as conducting Information literacy sessions. The LAN has been extended several times to provide the connectivity that was required to enable access to the Internet, intranet and utilisation of the IT equipment and resources. The strengthened ICT facilities are supporting the reconstruction of Maklib in various ways.

3.5 Training of users/ Information literacy

Maklib has designed user education or information literacy sessions as part of its work. Maklib conducts periodical end-user training to equip users with information retrieval skills, which have increased the usage of resources as already indicated. The training varies from the introductory User-education conducted at the beginning of each academic year to the periodic sessions run throughout the year. In addition and as part of its National e-resources coordination role, Maklib conducts outreach e-resources training in all public universities, registered private universities and research institutions, eg. the National Fisheries Research Institute and Virus Research Institute.

Every year, the Makerere University medical librarians conduct a one month information literacy training for undergraduate medical students each lasting four hours. Students are introduced to searching Accessmedicine, Electronic Library Information Navigator (ELIN), HINARI/Research4Life, NLM resources, OVID, Blackwell, Cochrane Library, etc. This is in addition to the user education conducted at the beginning of every academic year for first year undergraduate and postgraduate students.

Furthermore, Maklib realised that information handling is at the heart of the research process across all disciplines. In 2005, the author introduced a University-wide course for graduate students and researchers entitled 'Information competency and Management' as already indicated. The course focuses on the identification and use of reliable information sources and the management and presentation of the research results. Students/participants are introduced to a range of facilities available within Makerere University and beyond, that can support their research. The topics include: Introduction to the research process; Qualities of a good research article; Introduction to bibliographic searches for literature review; Sources of information and Document delivery; Searching the Internet and specific databases; Management of multiple

electronic files and word processing; Professional citing and quotation; Reference management using Endnote; and Presentation of research work. Among other things, at the end of the course, students/participants are able to import references specific to their research topics, organise and update records in their personal databases, and have their literature review chapters drafted. At the end of each session, participants evaluate the course, and they have strongly recommended the course. The responses and requests for the course to run twice a year have been overwhelming. The evaluation comments have been used to enrich the course, which has been conducted once a year since 2005.

The importance of training / information literacy to African University libraries has been demonstrated at the various conferences held on this theme. These include: 'Training and management of information services in the new millennium (Nkhoma-Wamunza, 2002) and the 6th Standing Conference of African National and University Librarians in East, Central and Southern Librarians (SCANUL-ECS) held in 2004, which focused on information literacy. One of the pre-IFLA 2007 satellite meetings organised by the IFLA Africa section also focused on Information literacy. These programmes, activities and conferences have an emphasis on African situation, realities, challenges and how they could be addressed. Maklib has prepared a paper focussing on the evaluation of information literacy sessions conducted in the past year. The paper has been accepted by an international conference on information literacy to be held in September 2010 in Norway.

3.6 Library building extension

Library space is one of the quality assurance issues according to the National Council for Higher Education Guidelines. However, over the years, there has been a lot of pressure for space in the Library resulting from the growing number of students. The Library building extension project, therefore, was embarked on in 2004 in a phased manner. The first half of the extension (4000 sq metres) was completed in 2007 with funding from Makerere University's internally generated funds.

The first half of the new Library building extension has improved the quality of library services in many ways, for example:

- Readers' space has increased by over one thousand seats.
- Modern libraries provide space for discussion, which has been lacking in the old building. The whole of the ground floor of the new building has discussion rooms.
- Researchers have more space, as the fifth floor has been devoted to Research carrels.
- There are more ICT facilities. The whole building has LAN extension, and there will be OPAC terminals and computers in Information commons as the whole of the second floor has been dedicated to this. The furnishing of the Commons is ongoing and the tender for the ICT equipment has been awarded.
- There are more toilet facilities for all users; in particular, library users with disabilities have, for the first time, got toilet facilities built according to the International standards.

Funding the second (and last) half of the extension became problematic as the University could not raise more funds for the Library building. The author considered

various options which she presented to the University administration and managed to convince them to raise funds by setting up a Library Development fee to be able to extend the very needed library space. Initially, the fee was to build the second half of the Main Library building extension and to sustain the ICT infrastructure beyond donor funding, and later to increase space in branch libraries. This proposal was supported by the Members of Parliament and the Ministry of Education. The Library Development fees have been contributed by the parents and guardians of Makerere University students since the academic year 2007/8. Constructing the second half of the Library building was started in October 2009 and will add another 4,000 sq metres of space.

Extending library space, without donor support, has been one of the major achievements of Maklib.

3.7 Provision of information services for special needs

Through affirmative action, Ugandan public Universities admit students with disabilities forming about 1% of the students' population. Makerere University, for example, has been admitting Students with disabilities (SWDs) ranging from the blind and visually impaired to those with physical disabilities since 1993. Given the ever-increasing number of SWDs admitted to Makerere University which unfortunately comes with the ever increasing changes in the information age, the provision of appropriate information services to the Library users with disabilities (LUWDs) needed attention. SWDs have to cope with the high academic demand put to all students, irrespective of their ability or disabilities, to obtain information from similar sources including the use of electronic materials. SWDs need to access appropriate ICT resources or computer laboratories as their able-bodied counterparts do because the academic demands are the same for all students.

Special provisions have been made for information resources and ICTs for LUWD. For example, a computer laboratory dedicated to LUWD was set up and software e.g. Jaws and Magic installed on computers. The blind and visually impaired students do their university exams in this computer laboratory. Furthermore, space has been reserved at the entrance of the Main library, furniture and other provisions have also been made. One of the challenges had been to extend document delivery service to the blind and visually impaired library users. In 2008, Maklib acquired equipment (embosser) to enhance its service to this category of users.

3.8 Linkages, collaborations and networking

During the course of reconstructing Maklib, various linkages, collaborations and networks have been established with local, regional and international institutions to whom Maklib is very grateful.

The benefits of collaboration, consortia, networks and peer support have been emphasised in LIS literature for a long time. Most of the success stories reported by African Librarians (Kakembo, 1998; Gelaw, 1998; Demilew, 2001; Wanyama, 2002; Musoke, 2008) revolve around collaboration and networking within institutions to lobby policy makers, within the country to form consortia and share the subscription of e-resources, implement document supply service and other resource sharing measures, as well as collaboration and networking with institutions in the Developed world to build capacity and get professional support. The actual and potential benefits of networking, cooperation and resource sharing in modifying the functions of

acquiring, storing and disseminating information and knowledge to support teaching, learning, research and professional practice, therefore, need to be reported, discussed and best practices shared (Landoy & Musoke, 2009) .

Makerere University and the University of Bergen in Norway have been collaborating for a long time. In 2009, the two universities celebrated ten years of the current agreement. The collaboration involved the libraries in the two Universities, which is important as sometimes Universities tend to exclude libraries in institutional collaborations. The collaboration between the two libraries included support from the University of Bergen Library (UoBL) to various professional activities of Maklib, for example: Capacity building of library staff, interlibrary loans, professional support for the retrospective catalogue conversion, and the Uganda Scholarly Digital Library.

The collaboration between the University of Bergen and Maklib has grown beyond the initial two institutions to include two institutions in the North and three in the South (Landoy & Musoke, 2009).

Maklib also collaborates with other institutions as reported under capacity building section of this paper (3.2).

3.9 Outreach

Although this is not a typical activity of academic libraries, Maklib handles various outreach activities through training in e-resources as already indicated, document delivery services, etc. Examples of outreach are outlined below:

The Uganda Health Information Digest, is a community outreach health information programme, that was initially funded by the Dreyfus Health Foundation (DHF) of USA until 2003. DHF funded a similar project in Cameroun, Ghana, Nigeria, Mali, Tanzania and Zambia in Africa as well as other developing countries. In Uganda, when the funding came to an end and the Digest stopped, there were a number of requests from the Digest users. Basing on the requests to revive the Digest, Maklib included this item in its budget since 2008 and it is now one of its regular activities. The revival of the Digest was received with joy by both Ugandan readers, and colleagues in other African countries, to whom Maklib sends copies as K. Chanda, a librarian from the University of Zambia while congratulating Maklib on sustaining the Digest commended “This is an important resource to health workers in upcountry areas, congratulations on funding it”.

Outreach training in health units: Makerere Univeristy Medical Librarians conduct outreach information literacy sessions in upcountry health units and para-medical training institutions and train participants on how the global knowledge base can be accessed, as well as sharing the resources available at the Medical library. Document supply (DS) request forms are distributed during the training sessions. In addition, a DS form is included in the print periodical Digest that is distributed to health units in Uganda (Musoke, 2009), and is also available on the Maklib website.

Support to Secondary schools: Maklib also extended service to two secondary school libraries in Kampala as part of the World Library day celebrations. The school libraries were reorganised (books classified, spine labelled, accessions register compiled, books shelved, etc – and photographs before and after the re-organisation

clearly show the magnitude of the work) and their school administration were very grateful. Since then more schools have requested for a similar service.

Sharing knowledge with others: Maklib shares the knowledge, skills and experience in handling library and information science tasks with trainee librarians, binders, archivists and records managers from universities, colleges and other higher institutions in Uganda and beyond. Through attachments to the different sections at Maklib, these trainees observe and learn best practices from the experienced librarians in different fields. Some of the institutions in the region that have gained from Maklib's expertise include: University of Juba (Sudan), various universities in Nigeria, Sokoine University of Agriculture (Tanzania), and various institutions in Uganda.

3.10 Marketing/ awareness-raising of Maklib operations to the University community

Various activities have been undertaken to publicise the work of Maklib. These include the information literacy/training sessions conducted by Maklib regularly; a newsletter, calendar and Christmas cards distributed to all Deans and Directors, Members of Council, Management, etc.; participate in all University exhibitions to show-case Maklib's work; annual exhibition to celebrate the Women's day; and celebrations to mark the World Library day.

In 2008, Maklib decided to boost its publicity activities by celebrating the World Library day starting May 2009. This was the first time a World library day was celebrated in Uganda. An organising committee of Maklib staff was put in place. The theme of the first Library day celebrations was: **"Keep the Library on the agenda as we build for the future"**. The theme was drawn from the then IFLA's Presidential theme "Keep the Library on the Agenda" and it was combined with the Makerere's motto: "We build for the Future". This emphasised Maklib's call upon policy makers, administrators, library users and all stakeholders to keep the Library on the Development agenda as a priority in the University functions.

The theme for the 2010 Library day celebrations was **"Makerere University Library: beyond the campus walls"**. The theme focused on community outreach and highlighted the role of Maklib in improving information service delivery beyond Makerere University. Community outreach is one of the priorities in the current Makerere University Strategic plan. For some time, though, Maklib had been involved in various outreach activities because we recognise the fact that we are comparatively better resourced than most libraries in this country. A number of activities were carried out, briefly: reorganising two secondary school libraries; a three day workshop for librarians on outreach run by Mortenson Center, Univ of Illinois, USA; exhibition by publishers and Maklib; awards to two health workers (from Bushenyi and Rakai districts) who had actively participated by contributing articles and feedback to the Uganda Health information Digest that started in 1997, which confirms that the Digest is a demand-driven outreach service. Going out to provide professional support to the two secondary school libraries was an eye opener of the need for such support.

3.11 Fundraising

Various fund raising activities have been undertaken. For example, during the author's first term, loop holes in the collection of internally generated funds in the library were tightened and this increased the revenue collection by over 50%. Furthermore, in 2009, the University tasked one of the University's accountants to specifically handle Maklib's work. This was a great achievement as Maklib has grown and it had requested for this support for a long time.

Since 2006, Maklib has mobilised members of the Consortium of Uganda University Libraries (CUUL) to pool resources for sustaining e-journal subscription at the end of donor funding. This is important as **sustainability of donor supported projects** remains one of the key issues to be addressed by many institutions in Africa.

As already indicated, the author initiated the Library Development fee in 2007 to raise funds to be able to extend library space. Together with the University administration, the author presented the proposal to the members of the Social services committee of Parliament, and sensitised Makerere University students to recognise the importance of the Library Development fee. This experience emphasises the need to lobby for support from different policy-makers and stakeholders if library proposals are to be successful.

Furthermore, Maklib has written successful grant proposals which have earned it funding from development partners. The experience of writing successful proposals has been shared with Maklib staff.

Fundraising, friends-raising and support raising is an on-going activity, and Maklib will continue to solicit for support and to lobby and advocate for improved funding.

4. PERSISTENT CHALLENGES

Although various achievements have been recorded, there are still some challenges. They include:

4.1 Growing student numbers versus available Library facilities

Libraries are key to ensuring quality teaching, learning and research. Meeting the international and national (and sometimes institutional e.g. the computer-student ratio at Makerere) standards remains a challenge. Makerere University is faced with the growing student numbers and yet some of the Library facilities and budget do not improve accordingly. Many students entirely depend on Maklib for reading space as their crowded accommodation can not provide an alternative. Consequently, library space and facilities are stretched and strained leading to tear and wear and the need for replacements, which are sometimes not adequately provided for in the budget.

Furthermore, the Library user-computer ratio is still below Makerere University's institutional target of 1:5, and the overall University ratio which was 1:20 in 2009. As Makerere University struggle to address the user-computer ratio by acquiring more computers, the bandwidth gets less and less. The cost of bandwidth is still high although it is expected to improve as the 'cable' reaches Kampala. Consequently, inadequate connectivity and bandwidth hinder the full utilisation of online resources and affect the pace of implementing digital initiatives.

4.2 Copyright and the digital age

The digital age has brought good developments as well as challenges to librarians. One of them is the difficulty to enforce 'fair use' in photocopying, downloading, etc among library users. The librarians play their role by raising awareness of library users about fair use. This, however, remains a challenge as librarians are not in position to follow library users on how they use the documents photocopied, downloaded or loaned from the library.

Makerere University's Intellectual property policy was passed in 2008. This is expected to strengthen the protection of intellectual property, among others. Some researchers, however, are still reluctant to input their works in USDL because of intellectual property issues, while others are restricted by publishers. There is need for publishers to unconditionally let authors deposit copies of their works in their institutional repositories.

5. LESSONS LEARNED

Some of the lessons learned include:

5.1 Automation never ends

The ever-changing ICT environment, the need to upgrade software and hardware, etc makes the automation work ongoing. Sometimes before one activity is completed, there is a new upgrade, which tends to take away the sense of achievement. Development partners should probably not ask "when are you completing your library automation?".

5.2. Capacity building of librarians is key to success

Given the rapid advances in ICTs and the profession, librarians need to embrace the new developments/advances in both librarianship and ICTs by training and re-training to be able to update their knowledge and skills. This would enable librarians to competently implement the ICT projects and to instruct and guide users. Therefore, capacity building of librarians is not only important to the implementation of ICT library project but also to the sustainability of the projects as the skills and knowledge acquired takes the process forward and is shared with others.

5.3. The need for support

The limited funds available in public universities and how the expenditures are prioritised is a major challenge. Libraries need to identify allies/supporters among the top University administrators and other policy makers to lobby for improved funding. It is also important to have good relations with the students' body – the students are a very important constituency to the library and working with them is not only strategic but it is a good and beneficial practice given their numbers, and the fact that they are members of all the important committees in the University.

When a proposal is presented and it gets rejected, that should not be the end, but the beginning of the struggle. Get back and re-strategise, get relevant data, examples of best practices, relate it to quality assurance, lobby/interest decision makers/ members of the committee, and present the proposal again, it succeeds.

5.4. The need to find space to balance activities and to reflect

As leaders in the low resource African setting, and with so many demands on our time, we usually get taken away and fail to balance the many responsibilities before us. The author has been a victim of this and would hate to see other people suffer in the same or similar way. It is important to find time to reflect on our professional, official and personal responsibilities and what we can do to manage the available time better – we can't stretch the day beyond 24 hours unfortunately! **Reflect, plan and implement.**

6. CONCLUSION

The paper has outlined the various ways Maklib has been improved to enhance service delivery to its users and beyond. The achievements have mainly resulted from innovative librarians, good planning, collaboration and support from University administration and development partners. The improvements include: the introduction of the MakULA terminals to provide the Online Public Access Catalogue, thereby replacing the wooden catalogue; setting up a Closed Circuit security system; a digital institutional repository; a music archive; an automated circulation system; all active sections of the Main library merged and moved to Level four; a recent addition of 4,000 sq metres to the Main Library and the ongoing construction of another 4,000 sq metres using Makerere University's Internally generated funds; and the change in the historical role of librarians who are now proactive, multi-tasked and multi-skilled to be able to deliver high quality information services to meet the needs of users. The skilled librarians have exported their expertise to other libraries in Uganda, Nigeria, Sudan, Tanzania, etc.

Some of the lessons learned include **focused leadership** coupled with the need to **continually build the capacity of librarians** do sustain the reconstruction process. Furthermore, **automation is never a completed activity because of** the ever changing IT developments. Maklib will continue to solicit for support to address the financial and related challenges.

Finally, Maklib is currently reconstructing itself into a model academic library in Sub-Saharan Africa. This follows, among others, its emerging the winner of a competitive grant from the Carnegie Corporation of New York. Several University Libraries in East and West Africa competed for the grant, which focuses on automation of the University library. The grant will enhance Maklib's premier position in the country and the region in the provision of library and information services.

The paper has shown that it is possible to reconstruct library services with minimal resources, but with determination and focus. As 'we build for the future' of Uganda and beyond, Makerere Librarians are determined to continue the struggle. They need support from all stakeholders and well-wishers.

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