ICADLA-2 ABSTRACTS OF PRESENTATIONS

Beatrice Adera Amollo. DIGITIZATION FOR LIBRARIES IN KENYA

It is now over 10 years since the first online library service was introduced and much has happened to make digital collections a norm, not an exception. Libraries and archives have had to embrace ICT to keep abreast of user expectations, habits and global trends. Setting up of digital collections in Kenya has generally progressed more slowly than in other countries in Africa and the rest of the world. The progress made to date might be good, but the pace is not impressive. This is particularly worrying if measured against the developments of other libraries globally. Initiatives for library digitization are patchy, with academic and research institution libraries showing greatest advances.

The status of digital libraries and the challenges that digitization presents, based on the literature and findings of a study, are mentioned. A proposal for the way forward, despite the hurdles, is presented at the end.

Professor John C. Anyanwu. DEVELOPING KNOWLEDGE FOR ECONOMIC ADVANCEMENT IN AFRICA (Keynote address)

From 1995 to 2008, Africa's average economic growth was 5% per annum. In 2008 GDP growth in Africa was 5.5% against 6.5% in 2007, representing the fifth consecutive year when growth exceeded 5.5%. This has largely been attributed generally as the dividend of the reforms embarked upon by most African countries during the period. However, the impact of the global economic and financial crisis slashed growth rates to 3.1% in 2009, just half of the average growth rate achieved during the previous five years. Africa's economic growth recovered in 2010 to 4.9% but has been projected to slide to 3.7% in 2011 due to the "revolution effect" in Tunisia, Egypt and Libya and the "Cote D'Ivoire conflict effect". If the political situation stabilizes, Africa is projected to accelerate to around 5.8% in 2012 but this is still not sufficient to meet the MDG targets. In addition, increases in real GDP growth have not translated into equal benefits for the African population given persistent inequality. Latest data indicate Africa's income inequality measured by Gini index is high at 45 (on a scale of 0 to 100) – only slightly better than in 1980. A key result of high inequality is that economic growth delivers much less in terms of poverty reduction. Available data indicate, for example, that in Sub-Saharan Africa, the $1.25 a day poverty rate has shown no sustained decline over the whole period since 1981, starting and ending at 50%. In absolute terms, the number of poor people nearly doubled from 200 million in 1981 to 390 million in 2005. Africa's economic growth has also failed to deliver jobs, especially for graduates and youths. Africa is less competitive than other regions. And in spite of some recent improvements in other measures of well-being, Africa lags its comparators and developed regions in key social indicators.

Knowledge is a prerequisite for rapid economic advancement in today's global knowledge economy. Any nation that fails to position itself properly in this global, knowledge-based market place, will be increasingly unable to compete and harness the power of knowledge. For African countries, this has created new challenges as well as new windows of opportunity. In this paper, we discuss how Africa can transform itself into a knowledge-based economy for accelerating its economic advancement. We first take a snapshot of the concept of knowledge and its role in economic advancement. Second, we examine the state of knowledge in the continent with a view to identifying the key aconstraints. Using data on the knowledge economy index as a whole, Africa does not compare well with other regions and countries in advanced countries. With respect to the knowledge index, Africa is not only trumped by other regions but also its overall score fell between 2000 and 2009 (indicating lost ground). In terms of the three pillars of the knowledge index (education, innovation, and ICT), Africa's performance is not only poor but

declining. However, we find that knowledge (and the knowledge economy) index is a good predictor of GDP per capita/economic growth and human development. Third, we outline the ways to create the relevant knowledge not only to close the knowledge gap but also to spur economic advancement and social welfare. These will include developing educated and skilled workers (especially through scientific research and technological development), creating an efficient innovation system, and building a dynamic information infrastructure. However, strengthening the economic and institutional regime is a *sine qua non* in stimulating the most effective use of resources in these three broad domains, permitting their deployment to the most productive uses, and allowing entrepreneurial activity to flourish to contribute better to Africa's economic advancement.

Dr Abraham Azubuike (Dag Hammarskjold Library, United Nations, New York).
BEING STRATEGIC ABOUT DIGITIZATION PROJECTS
The paper outlines why managers must be strategic when introducing, planning and executing digitization projects, and in running digitization programmes. It will also point to the importance of developing and selling both project high-level business case and business plan, in managing the challenges of getting a digitization project off the ground. It will discuss why "being strategic" is of paramount importance in demonstrating both short -term and long-term value of a project, as well as in navigating the various political and operational soft patches that exist naturally in institutional and national project development and implementation environments.

Richard Bennett. SPRINGER BOOK ARCHIVES – THE BOOK WILL NEVER DIE.
Springer has started an initiative to retro-digitize books published by its individual publishing houses that are not yet available as eBooks. This initiative, the Springer Book Archives, affirms Springer's commitment to the preservation of valuable scholarly content both online and in print. Making these older books electronically available increases their discoverability and will allow easier access to information that was highly limited or even non-existent in the past, when there were only print books.

The Springer Book Archives intends to digitize some 65,000 thousands books and includes historic titles back to the 1840s. Usage analysis of Springer Journal Archives has shown that 'older' content is still often read and even cited. The cited half-life of books is notably longer than that of journals. Springer uses the original print books for the digitization process. It is challenging to find these original books, but with the help of national libraries and antiquarian bookshops, it is possible to locate the editions needed. The quality of scanning is also very important. First, because these books will be made full-text searchable, accurate text recognition is very important. All bibliographic metadata is thoroughly checked, both with automated systems and manually. Secondly, Springer creates a digital version of the book that even can be used for reprints.For many of the books within this project, Springer does not have the electronic distribution rights. Yet we are working to find as many authors as possible and request that they transfer these rights to Springer so that the electronic version of their book can be read by the global research community. At the end of project, scheduled for late 2012, libraries and their patrons will be able to enjoy perpetual 'anywhere, anytime' access to these books and growing e-collections.

Matthew Buys. EBSCOhost: MEETING THE CHALLENGES IN AFRICA
The paper considers the challenges that students and faculty members face on a day-to-day basis in Africa. The advancements in technology over the last decade have been rapid and the application of this to literacy is an important consideration for all academics across the globe. EBSCOhost has made some vital improvements to its interface and access channels over the last few years. The paper takes into consideration the challenges that Africa faces

with regard to their technology needs. Not only does the paper pose some vital questions for academics but also provides insight into some possible remedies and actions to be taken.

Access to information and knowledge management has become an important commodity around the globe. It is also important to note that affordability and ease of access are vital barriers to overcome. There are several cases where access to information is not readily available to students and hence hinders the learning and development of students across the continent. Case studies are examined and important points are raised. Finally the paper highlights some key advancements in technology that should be embraced by all academics around the globe.

Africa Jumanne Bwamkuu (Programme Manager AOS; The Royal Tropical Institute (KIT)
COLLABORATIVE PLATFORM FOR KNOWLEDGE ACCESS AND USE IN AFRICA
This paper explores the activities, products and governing strategies of the collaborative programme of stakeholders referred to as Open Access Repositories, the Capacity Strengthening Programme for Africa (OA-IRCSP). The programme is a joint initiative of Association of African Universities (AAU) and the Royal Tropical Institute (KIT). The programme's aim is to facilitate access and use of knowledge, through strengthening the capacity of academic institutions in Africa to establish open access digital repositories.
Focus: The paper discusses the programme's activities and products, the Institutional Repositories (IR) Toolkit and accompanying training modules, and their relevance in building institutional repositories within academic institutions. It examines the platform that engages stakeholders in the development, promotion and use of products to facilitate knowledge exchange and dissemination while discussing the needs of integration of DATAD in a network of distributed digital repositories of African academic research publications.

Approaches and methodology: The paper is based on the experience of implementing the programme's activities, the feedback of stakeholders through the programme's communication platform, direct communication with stakeholders and views collected during capacity building workshops.

Policy and framework presented: The programme is implemented under a collaborative framework between AAU and KIT as leading implementing partners. The framework involves individual academic institutions and national consortia across Africa. The programme is governed by AAU and KIT policies of cooperation.

Summary of findings: The lack of a collaborative framework and lack of awareness of the importance of digital repositories at institutional, national and regional levels have impeded African intellectual output from being effectively managed and shared. Thus there is a need to create awareness, especially at managerial level to understand the mechanism of establishing collaborative efforts to spur knowledge access and use in Africa.

Recommendations:
- Increase number of advocacy activities for collaborative repository projects at managerial level nationally and regionally;
- Increase national collaborative repository initiatives to address the issue of inadequacy of resources among individual institutions;
- Integrate DATAD in a network of distributed digital repositories of African academic research publications;
- Investigate the sustainability models of the collaborative repository projects.

Jill Cousins. EUROPEANA: A NETWORK MODEL FOR THE CREATION AND SUSTAINABILITY OF CULTURAL HERITAGE

The concept of multipliers was at the heart of the creation of the Europeana Foundation and therefore its service Europeana.eu. The remit was to develop a digital library that could give access to the riches of European cultural heritage. To be able to talk to each and every one of the cultural heritage institutions of Europe was thought to be an impossibility. The organisation that ran it would have to be enormous. We therefore came up with the concept of Aggregation. This was based very much on the experience of The European Library. Equally development of technological platforms and the Europeana Data Model has been a very cooperative exercise with over 1500 institutions within Europe.

The talk will cover the strategic plan and business model of Europeana that has furthered the development and sustainability of a network of contributing technical, content and dissemination institutions from the cultural heritage sectors. It will also look at the some of the drawbacks and ways we might overcome them.
A short demonstration of Europeana will be given.

Chrispin Hamooya. DIGITIZATION OF HISTORICAL INFORMATION AT THE OF NATIONAL ARCHIVES OF ZAMBIA: CRITICAL STRATEGIC REVIEW

The paper reviews the digitization project done at the National Archives of Zambia. The patrimony of the National Archives of Zambia is immense and of unquestionable historical relevance. However, it suffered from both a lack of exposure and from an outdated system of record keeping and consultation. While not many interested parties were able to access the materials directly, those who did contributed unwittingly to their gradual destruction: when associated with other external agents, physical consultation can be extremely detrimental. The paper shows that the objectives of the project were to safeguard and ensure the preservation of the most valuable and perishable components of the archival patrimony of the National Archives of Zambia; to render them more accessible and facilitate their future fruition by a broader number of researchers and interested parties; to enable a select group of National Archives of Zambia's members of staff to gain theoretical knowledge and practical experience in electronic records management and website design ; and to enhance the national and international visibility of the National Archives of Zambia by increasing awareness of its holdings. The paper discusses the activities that were undertaken to achieve each objective and the contribution made by external players. The paper concludes by assessing the challenges posed by the project, the experience gained and lessons learnt. **Key words:** Digitization, District Note books, National Archives of Zambia.

Werner Hillebrecht. ESTABLISHING A DIGITIZATION PROGRAMME FOR NAMIBIA: PROMISES, PITFALLS AND PROGRESS

The National Archives of Namibia (NAN) began experimenting with digitization in 1995 but only started a digitization programme in 2005, at first in connection with the Aluka Project. It is still facing the problem of having no permanent dedicated staff for this programme, which continues to be run with adhoc projects that rely on donor funding, local and foreign cooperation, temporary assignment of archives staff, unpaid interns and similar measures. Nevertheless the programme has managed to digitize a substantial range of paper-based materials, including the entire catalogued photo collection. It has established policy and technical guidelines as well as a workflow, and is currently diversifying into the digitization of sound and audiovisual media.

The paper outlines the key problems that were encountered in this process in terms of

technical standards and equipment, staff capacity development and retention of trained staff, intellectual property issues and ownership of the programme. The provision of metadata is identified as the main bottleneck in the process, because it is both work-intensive and intellectually demanding. It is shown that the successfully proceeding projects did so because of pre-existing metadata or the minimal need for metadata. On the issue of technical standards, the paper warns of unrealistic standards that may hamper the process of gaining experience. In the example of the NAN photo and map collections the paper discusses how a flexible and integrated approach to specific conditions can at the same time assist in promoting access, improving preservation conditions and improving overall collection management. It is, for example, argued that it is better to have a highly fragile analogue source protected from use by an imperfect digital copy, than to wait for the perfect technical solution and risk further deterioration. Finally, the pitfalls of a donor-driven approach and of over-ambitious plans are discussed with the example of several sub-projects.

Sarah Kaddu and Ezra Kalule. EXAMINING TECHNICAL ISSUES OF THE WORLD DIGITAL LIBRARY IN UGANDA: CHALLENGES AND PROSPECTS
With the agreement and subsequent signing of the Memorandum of Understanding between the Library of Congress (LC) and the National Library of Uganda (NLU) in 2009, NLU became an active partner institution of the World Digital Library (WDL). Since then, technical processes related to digitizing Uganda's cultural heritage have been managed. These include: identification of digitizable cultural materials/content selection, scanning, metadata, preservation and conservation and the creation of the Uganda Digital Repository.
The aim of this paper was to examine the challenges encountered in managing the technical activities and propose solutions for better management of the WDL in Uganda. Objectives included: to examine the technical services involved in the digitisation process; to identify challenges faced in executing the technical processes; and to identify solutions to the challenges. Data collection was effected through analysis of WDL literature relevant to technical activities in general and the WDL (Uganda) in particular; participant observation of technical processes; and a Focus Group Discussion with employees. Personal experience also applied in explaining some aspects of the research.

The paper should generate critical information and debate on the management of WDL technical processes, the challenges, and also strategies to overcome the challenges. The paper should benefit the project administrators, staff and other stakeholders in working towards better performance of the WDL in general and WDL (Uganda) in particular.
Keywords: National Library of Uganda, World Digital Library, digitization, cultural heritage.

Sarah Kagoda-Batuwa. THE EAST AFRICAN COMMUNITY ELECTRONIC LIBRARY: DOCUMENTING THE REGIONAL INTEGRATION PROCESS
The East African Community (EAC) is a regional intergovernmental organisation with a membership of five countries. Since its establishment in 1999 the Community has generated a lot of information and knowledge through its various integration processes of a Customs Union, Common Market and Monetary Union. The Community has therefore embarked on the process of digitizing its information resources and knowledge and making these available online. The existing library will be transformed into an electronic information resource centre that will act as a central access point for EAC information and knowledge. The digitization project is a collaborative effort of the various organs and institutions of the Community, aimed at documenting the East African regional integration process for preservation and prosperity. The project will benefit the various stakeholders, including partner states, students and researchers. The paper will discuss the planned digitization process, methodology and anticipated challenges.

Brewster Kahle. TOWARDS UNIVERSAL ACCESS TO ALL KNOWLEDGE
Advances in computing and communications mean that we can cost-effectively store every book, sound recording, movie, software package, and public web page ever created, and provide access to these collections via the Internet to students and adults all over the world. By mostly using existing institutions and funding sources, we can build this as well as compensate authors within the current worldwide library budget. As these digital libraries take shape there are new opportunities for computer scientists. Can we make a distributed web of books that supports vending and lending? How can our machines learn by reading these materials? Can we reconfigure the information to make interactive question answering machines? Can we learn from the past human translations of documents to seed an automatic version? Similarly, can we learn how to do optical character recognition by having billions of correct examples? What compensation systems will serve creators and networked users? How do we preserve petabytes of changing data?

This talk will give an overview of the collections and challenges now facing those of us building digital libraries, and end with a list of possible projects that might now be possible because of these collections.

A. Kujenga and R. de Vries. SUPPORTING AFRICAN DIGITAL LIBRARY PROJECTS: EXPERIENCES FROM THE FIELD
This paper outlines the activities of the African Digital Library Support Network (ADLSN) in enhancing knowledge access by promoting and assisting the development of low-cost digital libraries in Africa. It aims to stimulate practical discussion on how digital library projects can be run in Africa in a collaborative way. It focuses on the milestones and challenges of the ADLSN, starting by narrating events leading to the formation of the network, its structure and its strategic directions. The notion of National Centres through which the Network grew is discussed and the financing of activities is addressed. The paper examines some of the barriers that must be taken into account when developing digital libraries and also makes recommendations for policies related to collaborative national and/or regional digital library projects.

The paper uses a qualitative approach and is based on the personal experiences and observations of the authors together with some informal interviews and document analysis.

David Larsen. COLLECTIONS AND MARKETS: PITFALLS AND POSSIBILITIES
Many archives have special collections that experience or could experience consistent use by publishers and broadcasters to illustrate a particular historical period or subject field. Archives and archives professionals, however, often find themselves uncertain about how to deal with what they see as "commercial" interests. How does one protect the integrity of a collection and even the principle of open access against such interests; when are such interests valid and when are they illegitimate? What is the role of publishers and broadcasters in society and where does this overlap with the mandate of archives to preserve, research, educate and inform? And where do the roles diverge? What is the difference between editorial and commercial publishing?

This paper seeks to explore such questions, moving toward the formulation of clear policies and strategies for interacting with editorial markets. Insight will be provided from a decade of working on the interface between public archives and publishing and broadcast markets. The paper seeks to facilitate understanding and give insights that empower wise choices that protect the long-term integrity of archival

collections. Building on the concept of appropriate access, the paper will argue that there is a significant difference between commercial markets for archival content, and editorial markets. Commercial markets in the business of promoting products or services are almost never appropriate channels for the publishing of archival content. Editorial markets, on the other hand, when operating with the mandate that society has given them, should be seen as an extension of the mandate that archives have to educate and inform. In this regard they should be seen as strategic partners.

The paper will also argue for layers of appropriate access and rights to use a collection, indicating appropriate models for interacting with various users and granting usage rights.

Roger Layton. PRINCIPLES OF THE DIGITAL HERITAGE
We were commissioned in late 2009 to create the National Policy on Digitisation for the Department of Arts and Culture. This policy was subjected to public participation in early 2011, receiving positive comment and critique, and has now moved onto the next stage in its life cycle. As the project leader for this policy development I can now look back and reflect on the processes that led to the formulation of the recommendations and in particular how I envisioned the future of digital repositories and libraries. I made a specific point in the policy that heritage has the longest agenda of any human activity, which could be seen as eternal, with our largest group of stakeholders being future generations. Whereas libraries have been in existence for thousands of years, this has always involved the management of physical books and related documents, and the manner in which libraries are managed and administered has changed very little in this time. Computers have only a 60-year history, of which initial computerized systems were primarily used for library administration and indexing, and it was only with the introduction of the first digital networks and the World Wide Web in that it was possible to share and cross-reference electronic documents using digital networks.

The Digitisation Policy was the core output of our work with the Department of Arts and Culture, and provided the key policy statement on how to enable a long-term digital heritage that was preserved and was accessible, and for which the issues of intellectual property were clarified. However, there were many other outputs that derived from this policy including a collection of best practices associated with the digital heritage in all of its forms. I called this the Digital Heritage Body of Knowledge (DHBOK) and this was structured into the core areas of Principles, People, Processes, and Practices.

In this paper I focus on the Principles which form the basis on which key decisions can be made when confronted with the plethora of choices that confront organisations at the various processes within the digital heritage. I could not prescribe a single set of choices or priorities that would cover every situation and every context, but I did manage to formulate a general set of principles to guide decision-making was possible.
The outcome was a set of 15 such Principles, drawn from extensive research of the available literature, of current practices and standards, and from interviews with key local and international stakeholders. These are the key Principles that define the notion of —success‖ within any digital heritage project, no matter whether this is a digital library, digital archive or virtual museum. **Keywords:** eHeritage, digital heritage, oral history documentation, digitisation policy, Linked Data, Web 3.0, Semantic Web, RDF, liberation struggle, victims of conflict, biographies

Anthony J. Maeder. DESIGN CONSIDERATIONS FOR DIGITAL IMAGE LIBRARIES

Design of digital image libraries requires choices for numerous configuration aspects, such as resolution and display settings. These aspects can be categorized into different types of design criteria based on whether they are a human viewing and usage factor, or a stage in the image library management process. The criteria can also be applied in a hierarchy of nested versions of access to the library to suit different usage circumstances. Here we present a framework for design criteria using this approach, and apply it to some example cases. **Keywords:** digital image, digitization, human visual system

Pierre Malan. CREATION OF A DIGITAL AFRICAN ARCHIVE

Sabinet Gateway, a non-profit organization that promotes and supports library and information services in Africa, has been awarded a $1.8 million grant from the Carnegie Corporation New York to create an African Online Journal Archive. This archive, the first of its kind to contain purely African content, will make academic inputs from all over Africa available for research purposes to local and international organisations and academic institutions. The aim is to create for the first time a central full-text repository of retrospective journal content that contains important African research across a number of fields, including the medical, social sciences and environmental arenas. These materials have unique value, providing not only the vital groundwork for further or related research but assisting to preserve the heritage of the African continent. Stretching over four years, this project includes the sourcing of African journal content, the negotiation of publisher agreements, digitization and indexing of the journal content and the creation of a front end that will make the journal content easily accessible to end users online. As a result the project aims for the archive to contain approximately 90 000 articles.

Chedza Molefe. RESOURCE MOBILIZATION: A PREREQUISITE FOR PROJECT IMPLEMENTATION, SUCCESS AND SUSTAINABILITY

Unprecedented developments in technology that lead to remarkable increases in knowledge processing and production, coupled with new user demands, have made digitization essential. Access to resources has dwindled in the wake of the economic slow-down. It has become imperative to make projects attractive to donors through proper and elaborate planning. Collaboration, an old concept in libraries, is one strategy for attraction. Resource mobilization, an important part of planning, should always be the first step in embarking on digitization projects. It should therefore be carried out in a systematic way following a resource mobilization strategy with specific steps. The Organization of African Unity (OAU) now defunct project illustrates how deficiencies in resource mobilization can lead to project failure. It is proposed that ICADLA set up a steering team to work with Economic Commission for Africa (ECA) and the African Union Commission (AUC) to implement resource mobilization strategy with the view to coordinating and promoting digitization projects in Africa for the development of an African Digital Library of information for development. **Keywords:** Resource mobilization; Digital Library Collaboration; ICADLA; African Digital Library.

Dr Rafaa A. Ghobrial Morgos. THE DIGITAL FUTURE OF SCIENTIFIC AND TECHNOLOGICAL INFORMATION (STI) IN THE SUDANESE RESEARCH COMMUNITY

Sudan is a country rich in heritage; scientific research outputs and traditional knowledge are the Collective Scientific Memory. This paper reviews S&D and Information and Communications Technology (ICT) development in the country. It aims to optimize the use of information and knowledge systems in the research community to explore new areas of research and elaborate on expected values of the digital future. The most important findings of this study are that the existence of entities within traditional organizational structures and

the environment is conducive to creativity, and that the range of innovation is limited. STI is hampered by lack of coordination, communication and cooperation, a fragile infrastructure and insufficient financial and human resources. In conclusion the study proposes a digital system for sharing and exchange of S&T knowledge i.e. for the open flow of information and knowledge for research projects, in order to revolutionize the prevailing reality in research institutions for them to cope and position themselves in the information and knowledge society.

Glenda Myers, Danielle Aloia and Phindile Bekwa. THE GREYLIT PROJECT: INTERNATIONAL CO-OPERATIVE CHALLENGES IN CAPACITY AND RESOURCES

The broadest definition of grey literature covers a body of literature that cannot easily be found by means of conventional published channels, and includes government research, non-profit reports and reports from other primary resource materials. In the digital age, the reputation of the source is of prime importance. As such, the Institutional Repository (IR) is able to play an important part in validation of the integrity of material. The New York Academy of Medicine (NYAM) has invited the Witwatersrand Health Sciences Library (WHSL) to partner with them in adding suitable South African public health and health policy documents to their *Grey Literature Report*. In order to co-operate, WHSL has had to formulate a strategy for digitization of the material that it wishes to contribute to the *Grey Literature Report*. This paper describes some of the challenges applicable to the digitization of healthcare material at WHSL.

Agnes Namaganda. DIGITIZATION OF UGANDA'S MUSICAL CULTURAL HERITAGE: LESSONS FROM MAKERERE UNIVERSITY LIBRARY DIGITAL ARCHIVE

This paper documents the learning experience of the Makerere University Digital Music Archive. It focuses on issues of digitizing sound, intellectual property management, and sustainability. Abrupt technological changes have rendered certain media obsolete hence limited access to music information. Project tasks included identification, selection, preparation of materials, and collection of basic descriptive metadata to allow retrieval. Internationally recognized standard were used to convert from analogue to digital. To create awareness, sensitization seminars were conducted. Collections to-date include: approximately 3,000 sound recordings, 545 video recordings, and 286 photographs, and 1015 items documented. The pace of digitization is slow due to scarcity of playback equipment, copyright issues, and inadequate technical skills. It is envisaged that digitization will improve preservation and access to the musical cultural heritage. However, adequate equipment, funding, training of staff, enforcement of appropriate laws, and provision of improved facilities need to be put in place for studying music in its various formats.

Ben Wekalao Namande. DIGITIZATION OF ARCHIVAL RECORDS: THE KENYA NATIONAL ARCHIVES AND DOCUMENTATION SERVICE EXPERIENCE.

The Kenya National Archives was established in 1965 by an Act of Parliament to provide custody, among other functions, to public and private records of enduring value. It is worth noting that some information resources at the Kenya National Archives were created as early as the 17th century. Some of these old materials have since deteriorated as a result of both environmental and biological dangers and become fragile, brittle and discoloured. This situation highlights the need for long-term availability of such resources. This paper is a sojourn in the digitization endeavours at the Kenya National Archives. It shows what has been done and the challenges that have been experienced. Despite the four-phase attempt to digitize over 680 million pages of records, the process has experienced myriad challenges those of particularly inadequate human capital and financial resources.

Jean Paul Ndayisaba. BURUNDI ARCHIVES: POLICY AND LEGISLATIVE FRAMEWORK
The paper discusses the situation of Burundi Archives in modern society, its role, development and future. It provides an overview of the current socio-political and economic environment after four decades of civil war that prevailed in Burundi, as is well known, at intervals from independence in 1962 to the present. Recent research findings regarding current record keeping initiatives in the public and private sector in Burundi and their effect on service delivery are presented. Included is the recent project initiated by the International Records Management Trust through its East Africa regional research project conducted by archivists and records managers on "Aligning records management with e-Government/Information Communication Technology and freedom of information in East Africa".

The key characteristics of economic advancement in Africa are transparency, responsibility, accountability, participation of all the people, both men and women, and responsiveness to the peoples' needs. The general intention behind this paper is to present the legal and policy framework regarding freedom of information, ICT and e-Government initiatives and national plans, records management and archives issues. Nowadays, development is to a large extent achieved through the documentation of decision processes and actions, and by making the resulting documentation accessible to the citizens. This presentation will provide an opportunity to describe key government bodies, their mandate, structure, staffing, training and role in preserving the memory of society, through, for example, the creation, management and dissemination of trustworthy records, which will further be referred to as record-keeping.

The paper concludes by positing that Burundi archives are underutilized as information sources. This is partly due to professional problems like lack of recognition of archives by governments, obsolete legislation, lack of professional training and advocacy, inadequate service, and inadequate or non-existent access tools. Another factor is lack of appropriate hardware and software and user-friendly systems, lack of knowledge using information technology, costs, and the vulnerability of digital information. Finally, the paper will discuss the challenge of record-keeping and some of opportunities in the digital society.

Ms Irene Onyancha. CAPACITY BUILDING ACTIVITIES ON OPEN ACCESS: THE UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA PERSPECTIVE
The United Nations Economic Commission for Africa, through the Division for ICT, Science and Technology, and in partnership with donors and other multi stakeholders, has played a significant role at national and regional level in facilitating development and fine-tuning of policies to improve the use of ICT application and promote knowledge access for socio-economic development in Africa. In addition ECA as an Open Access publisher contributes to a wealth of knowledge detailing on important research or decisions that have been made on the economic and social developmental aspects in Africa. This has been made available through the ECA Institutional repository currently containing 17,000 metadata records with about 11,000 linked digital files. Furthermore, ECA has established the Access to Scientific Knowledge in Africa initiative (ASKIA), a framework for bringing together scientific and socio-economic information for the African community over an interactive online portal acting as a one-stop shop to such knowledge and associated information. Different modalities are proposed in achieving the goals of ASKIA taking into consideration the information needs of users, opportunities brought by new technologies and the global trends on knowledge exchange and dissemination. Capacity building to strengthen institutional capacities to capture, manage and disseminate local content is an integral part of the programme.

Mr Nabil Saadallah (Manager, Middle East and Africa, VTLS Europe S.L.**)**
INSTITUTIONAL REPOSITORIES: DESCRIPTION OF VITAL AS AN EXAMPLE OF A FEDORA-BASED DIGITAL ASSETS MANAGEMENT SYSTEM
This paper discusses the phenomenon of institutional repositories and their usefulness in harvesting, storing and purveying digital content. A description of the characteristics and benefits of IRs is outlined. This is followed by a description of a number of examples of IRs, focusing on Fedora and VITAL. A number of current projects both institutional and regional repositories around the world are also described.

Geoffrey Francis Salanje. CREATING DIGITAL LIBRARY COLLECTIONS: PROSPECTS AND CHALLENGES FOR LIBRARIES IN MALAWI
Since 2008 Malawi Libraries have created more than ten digital library collections of local publications such as dissertations, theses, reports, scientific papers, speeches by politicians and newspaper articles on HIV/AIDS and gender issues. Most publications included were not "born digital." This paper views digitization as including the processes of scanning and creation of collections using Open source software such as Greenstone, DSpace, Endnote and Electronic Records and Management System. In Malawi Libraries digitization started after some librarians had attended various training workshops within and outside the country. The projects still face many challenges including: inadequate expertise, use of inadequate equipment, lack of OCR software, unfavourable copyright laws, non-interoperability resulting from use of different content software, thus hampering inter-institutional exchange of records. Some collections are not yet accessible online. It is worth noting however, that constant progress is being made, and some libraries are now acquiring appropriate equipment and software. The Malawi Copyright Act of 1989 is also being revised to accommodate electronic documents. Librarians are gaining expertise mostly through hands-on training.

Delight T. Sigauke and Dr C. T. Nengomasha. CHALLENGES AND PROSPECTS FACING THE DIGITIZATION OF HISTORICAL RECORDS FOR THEIR PRESERVATION WITHIN THE NATIONAL ARCHIVES OF ZIMBABWE
The National Archives of Zimbabwe Act (1986) has declared that historical records in particular must be protected against any destruction, defacing, alteration, mutilation or damage. Despite this, the pace at which digitization has been implemented by the National Archives of Zimbabwe and other memory institutions to ensure the protection and preservation of historical records and other valuable information materials, has been slack and ad-hoc. This paper will present and discuss the circumstances and challenges facing the country's National Archiving institution in embarking on digitization efforts to preserve selected public and private historical records and archives-generated public registries, memory institutions and other information centres in Zimbabwe.
Keywords: Zimbabwe, National Archives of Zimbabwe, digitization, electronic records and archives, digital preservation.

Azeb Tewolde and Massimo Zaccaria. DEVELOPING NEW APPROACHES TO THE PRESERVATION AND SHARING OF AFRICA'S PRINTED HERITAGE: THE ERITREAN CASE.
Local printed materials are rich source of information and can greatly contribute to the understanding of many aspect of the modern history of Africa. Nevertheless, most of the African countries have never carried out satisfactory inventories for this kind of production and this heritage is at risk of being lost to posterity and its preservation is an urgent issue. Being for so long neglected, books and other documents printed in Africa are frequently

scattered in libraries and archives located in many different countries posing additional challenges to efforts directed to its preservation.

How can digital technologies help African countries to rebuild their printed heritage? This paper presents the case of a research project recently carried on in Eritrea aimed at digitally rebuilding the national printed heritage for the period 1867-1941. The methodology used was based on an equal share of research and digital activity. Through research we were able to carefully identify and determine the amount of material printed while through digitization we were able to reassemble journals and other printed documents that appeared in Eritrea in the above mentioned period. The project involved an intense "virtual repatriation campaign" as many documents followed the colonial vicissitudes experienced by Eritrea. After two years of work 110.000 pages were digitized with low cost equipment, freeware software and a bike.

Deborah Wilson. A PARTNERSHIP THAT UNDERPINS SUSTAINABLE CAPACITY DEVELOPMENT

The goal of enhancing an institution's digitization skills and capacity is often incorporated within its digitization plans. However, few institutions will cope with the sheer volume of backlog and the increasing calls for digitization as its utility becomes more apparent.
The Carnegie report, *An Audit of Digitisation Initiatives, Ongoing and Planned, in South Africa, Report to the National Research Foundation* states,

> Where a large quantity of material has been assembled, from within or across institutions, consideration should be given to driving the production of digitised images as a factory-type operation, with attention to appropriate staff skills, production targeting and quality control. These do not often feature in the day-to-day running of libraries and museums and specialist advice may be required.

The National Research Foundation recommends the sharing of skills across institutions and the development of centres of expertise, between institutions. These are necessary steps; however, a warning is in the words "factory-type operation". Experience shows that this requires a different set of skills, attitudes and management methods, very different to the institutional culture. The current practice of outsourcing the digitization of large volumes, mostly to commercial firms, illustrates this.

This paper describes the opportunity presented to extend digitization skills and capacity beyond the institution itself. A developmental model not only provides opportunities to the community but has the possibility of better management of the risks, higher productivity rates and greater sustainability. It frees institutions from managing production and from absorbing the costs and risks of extensive in-house digitization.

Knowledge sharing is at the core of capacity building. Active partnering by African institutions in the adoption of digitization can assist in overcoming the barriers in the development of technical infrastructure and institutional capacity. Institutional partnerships provide a basis for internal and community-based capacity building.
The rationale behind this model is examined:
- The opportunities and limitations of the traditional "grant" scenario
- The opportunities within outsourcing relationships
- The cost of developing institutional capacity

The development model is examined; it is not a risk-free solution, but it has potential for long-term sustainability while developing skills and opportunities within communities, while reducing the institutional commitment to in-house digitization. This makes it a strategy worthy of closer examination.

Teklemichael T. Wordofa. DIGITIZATION AND DIGITAL PRESERVATION ACTIVITIES AND INITIATIVES AT THE ADDIS ABABA UNIVERSITY: TOWARDS INSTITUTIONAL DIGITIZATION AND DIGITAL PRESERVATION STRATEGY

Addis Ababa University (AAU), the leading academic and research institution in Ethiopia, produces a tremendous amount of research output. Theses and dissertations, scholarly journals, proceedings and staff/discussion papers are among the major items. The print materials are available in different units of the University. Some units (schools and faculties) are planning to conduct mass digitization on some print collections of indigenous knowledge. Others have already started digitization activities on a smaller scale. However, digitization is a resource intensive and costly activity and hence requires a strategic approach.

On the other hand, the practice of collecting and preserving "born digital" materials at the AAU is in its infancy. This has influenced the development of digital library infrastructure (for example institutional repositories) that provides access and increases the visibility of digitally born research materials to researchers.

This paper examines the digitization activities and practice for managing born digital research materials, and suggests a strategic approach to digitization for the AAU. It brings together all relevant units of the University towards the establishment of a centre of digitization with a clearly defined digitization and digital preservation strategy.

Keywords: digitization strategy, digital preservation, Digital Projects Centre, Addis Ababa University