

LIBRARY AND INSTITUTIONAL REPOSITORY FOR CHARACTER AND SKILLS DEVELOPMENT IN AFRICA

By

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Abstract

This study examined the possibilities of library and institutional repository contributing and promoting human capacity development in academic libraries for the development of countries. Some basic concepts relating to this work such as library, institutional repository, skills, character and development were conceptually defined. The prospects libraries and institutional repositories could offer towards promoting basic library skills including ICT development for an enhanced information generation and delivery system for improved attitudes towards library use were examined. It was further observed that, with the emergence of information and communication technologies, libraries and institutional repositories could integrate ICT to a great advantage in information packaging and delivering system in Africa. The paper concluded by recommending that, academic libraries and institutional repositories should integrate ICT. Government should provide the necessary financial assistance/supports and enabling political climate for libraries and institutions of higher learning to thrive. Academic institutions with their libraries/institutional repositories should review their policies and curriculum

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to reflect the new ICT era. The review of policies/curriculum should make adequate provision for staff training/retraining for enhanced job performance.

Key words: Library, Institutional Repository, Skills, Character, Development, Africa.

Africa is a vast continent with more than fifty countries that call for respect in its rich diversity in terms of background, languages, ethnicities, culture and origins (Samoff 1 999). Most African countries are classified among the less developed countries. This is as a result of the level of poverty and illiteracy coupled with poor leadership style of many of her past leaders. The ugly situation was on for decades and it contributed greatly to the quality of library and information delivery service. Since the emergence of democratic rule across the continent and exponential growth in information systems and related technologies, especially in computer and telecommunications, there have been significant improvements in library and institutional repository service delivery. This trend has increased the desire for education and literacy.

Needless to state that education is an instrument par excellence for development. It helps in the conscious development of a people. The role of education in an individual's personal growth, skills development and democratic responsible behaviour thereby contributing immensely to the overall prosperity of a nation cannot be over-emphasised. In the pursuit of this goal in today's world, the library and repository apart from being agents of educational change, also serve other purposes like economic, social, political and recreational changes because they contain the written history, culture and knowledge of the human race.

In Nigeria and other developing countries of Africa, among the objectives of government is life-long education for the citizens, emphasis on the use and improvement of modern educational techniques at all levels, the structuring of education system to develop the practice of self learning and making the people to become actively literate and generally well-informed among others, in this regard, the African Network Campaign for Education for All (ANCEFA) stresses the need for serious focus on and investment in formal education and non-formal education like adult literacy programmes and youth training centres to tackle the literacy crisis (Olanrewaju 2009). These objectives are achievable through well articulated library and institutional repository policies. It is therefore imperative at all times to initiate policies and programmes that when aggregated will add value to the efforts needed to develop a society of quality people that can be strengthened in character and appropriate skills to drive the society to greater heights.

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Within the context of Africa, the World Bank review of Skills Development in Sub-Saharan Africa (Johanson and Adams 2003) reveals that the existing public technical and vocational education training (TVET) system in Kenya suffers from critical problems including the decline of quality; lack of relevance to occupational and social realities: under-enrolment; and under-funding. The implication of this development which is a common feature in other African countries is that the future will be difficult because the importance of skills and adequate training cannot be over-emphasized as it is expertise and technology that differentiates between the developed and developing countries where most African countries are classified. Library and institutional repository are store houses of organised information and many researchers, librarians and users have not appreciated the impact and derivable benefits from them.

Statement of the Problem

In the 21st century, the education and training in Sub-Saharan African countries is bedevilled with serious challenges that affect their socio-political and economic wellbeing. The product from their educational system presently and for the future requires skills, abilities and competencies that are suitable for market place and knowledge based economy. For this to be sustained, an integrated, holistic and inter-sectoral approach supported by strong leadership is appropriate.

For a sustainable intervention, education and training have to be seen as interrelated for socioeconomic development. However, there are necessary solutions unique to individual countries but there are commonalities. It is important to drive this situation with efficient deployment of information and communication technology (ICT). ICT has created platforms and opportunities for scholars to work collaboratively through extensive infrastructures, with access to resources and knowledge services in borderless environments. To be able to provide appropriate intervention, the library and institutional repository deserves attention to support technical and vocational skills development curricula. This can further be enhanced by ICT because it can play a central role in bridging the Technical and Vocational Skills Development learning environment to the world of work, and with increasing outreach of infrastructure and connectivity and constantly declining costs for equipment ICT integration to Technical and Vocational Skills Development is within reach. The study is to find out how these custodians of knowledge can support character and skills development in Africa.

Research Questions

To guide this study, the following research questions were formulated:

1. How does library and institutional repository support development in Africa?

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2. What are the impact of library and institutional repository in the promotion of scholarship?
3. What are the challenges facing library and institutional repository in Africa.
4. Identify the roles of the various stakeholders in the information access and use for the attainment of development

Objectives of the Study

The general objective of this study is to determine the impact of Library and Institutional repository for character and skills development in Africa. The specific objectives are to:

1. Identify the possibilities of library and institutional repository in development of Africa.
2. State how library and repository facilitate research in African environment.
3. Highlight the benefits of digitization towards nurturing a science based research.
4. Identify the link of library and repository in the pursuit of knowledge based information for the acquisition of skills for a sustainable Africa.
5. Mention the prospects of ICT towards a knowledge based Africa of the 21st century.

Literature Review

Library

In the world over, it is a well known fact that education at certain levels goes beyond the normal teacher-student relationship. Students who really intend to acquire substantial knowledge must work independently in their search by using reference materials and other sources available in the library. Apart from being agents of educational change, libraries serve other purposes like economic, social, political and recreational changes because they contain the written history, culture and knowledge of the human race (Abolaji 2009).

Libraries over time have always played a significant role in human history. As noted by (Watkins & Marsick 1993) cited in (Jam & Mutula 2008), libraries facilitate “promoting inquiry and dialogue; encouraging collaboration and team learning; establishing systems to capture and share learning; empowering people toward a collective vision; and connecting the organisation to its environment”.

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Libraries all over the world are beginning to be more interactive than passive. The introduction of information and communication technology (ICT) has completely changed the face of the library to more of a social networking centre, (Akinbulurno 2008).

Institutional Repositories

In recent times, educational institutions in Africa particularly the universities have seen the need to embark on integration of technology to facilitate their operations. This serves as a tool for improvement and development especially in a situation where attention is drawn to the academic contents and ways of digitizing and preserving them. In this regard, the university libraries are deeply involved because they are the store house of intellectual contents of these institutions (Eke 2011). The quest to organise and make the content accessible for use is digitization.

Institutional repositories provide online access to full text information and multimedia files. Institutional repositories emerged to address the challenge facing most organizations, namely the management of and access to the vast number of knowledge artefacts, ranging from journal articles, research reports books, research papers, and conference papers to ad hoc explicit records in electronic formats. All of these require effective management, preservation, and curation for efficient retrieval to facilitate the sharing of scientific knowledge. One of the expectations of the international scientific and research community is to be able to monitor papers and documents in order to make them freely accessible to the students, share information among peers. Although organizations are expected and required to be able and willing to provide other bodies with the access required after they have implemented their own repository, it remains a voluntary service. It is however, required that international copyright laws are honoured by the individual authors and the institutions implementing a repository service. A deliberate effort to capture and preserve the intellectual output of university communities can be referred to as institutional repositories (Crow 2002).

A repository established by a particular institution is known as institutional repository. Institutional repositories (IRs) are also known as digital repositories, or open access repositories. IRs are widely seen as the fastest route to open access for the widest range of scholarly and research literature, since they allow authors to publish in their choice of journals while providing the broadened access without pay barriers, the hallmark of open access publishing. It seems to be the best of both worlds scholars retain their ability to publish in the most prestigious journals in their field while simultaneously breaking down barriers to the wide dissemination of their research (Grundmann, 2009).

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IR can be intended to collect and preserve in digital form - the intellectual output of an institution, as PhD theses, preprints, post prints, working papers, or technical reports. It can also contain the institutions digital library, the collection of printed and manuscript documents, public archives, and graphic material, originating from the institution or elsewhere, that the university has converted to digital form for use within the university, and generally available to anyone. It can also contain the administrative output of the institution, as reports, directories, and local archival documentation. A well —developed example is the eScholarshjp Repository of the University of California Digital Library (Wikipedia, 2011).

Open Access repositories (or archives) are digital collections that make their contents freely available over the Internet. These digital repositories collect the research output of the members of a university’s research community and support the archiving and long-term preservation of the institution’s intellectual output (Swan & Chan 2009, C). Most institutional repositories are hosted within academic libraries around the world to digitally collect and preserve academic papers and documents in order to make them freely accessible to the students, faculty and the public.

Character

The word “character” is derived from a Greek word meaning ‘to mark’. The derivative suggests the: visible nature of traits. Visibility is a useful starting point for considering the matter of trend in youths’ character. Character is conduct. Conduct is the essence of character. In essence, conduct is visible, and can often be easily observed. Every society has its own system for training and educating its youths; and education for good life has been the most persistent concern of men through history. Africa was however, not an exception. Although its education was informal, but functionality and character buildings were the hallmarks of African traditional education. African society regarded education as a means to an end and not an end itself. Education was generally for immediate introduction into the society and a preparation for adulthood. In particular, African education emphasized social responsibility, job orientation, political participation, spiritual and moral values (Fafunwa, 1 995).

The implication of character development is that it helps to put the society in clear perspective in developing its citizenry for the future. The library and repository are meant to play a critical role in the preservation and promotion of the core societal values that are sustainable for the well being of its citizenry.

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Skills

In today's world, libraries are shifting their role from the custodian of traditional information resources to the provider of service-oriented digital information resources. Widespread use of computers, increased reliance on computer networks, rapid growth of the Internet and explosion in the quality and quantity of information compelled libraries to adopt new means and methods for the storage, retrieval and dissemination of information.

Library and repository in the 21st century are information and communication technology (ICT) driven. ICT is defined by Ebijuwa (2005) as tools used for collection, processing, storage, transmission and dissemination of information. To be able to survive and flow with the trend for information acquisition, access, use and storage, basic skills and literacy are necessary. For Lowe and McAuley (2002), information and communication technology literacy is defined as "the skills and abilities that will enable the use of computers and related information technologies to meet personal, educational and labour market goals".

Information profession requires a new thinking based on fast-paced change and requirements. This transformation has been brought about by the constant emergence of relevant new technologies (Ashcroft, 2004). Information professionals are increasingly required to adapt their skills and practice in order to gain an awareness of technological advances. The implication is there is much dynamism and professionals should know more than the traditional roles and ensure that new technologies, new skills and working environments are put in clear perspective for continuous relevance.

Information professionals are now expected to be aware of and capable of using and demonstrating emerging ICTs (Nwakaflma, 2003). There is a need for additional training to augment the traditional skills knowledge base with a competency in ICT use. Information professionals must be flexible and adapt traditional skills to incorporate the requirements of technological advances (Biddiscombe, 2001; Sharp, 2001). Given the current situation, whereby ICTs are being continuously updated or introduced, and traditional formats are being replaced or supplemented by digital formats (such as e-journals and ebooks), it seems likely that there will continue to be a need for regular training for information professionals.

To be able to benefit fully from deliverables of library and repository, there is need to be equipped with relevant skills which are ICT based. The vital role ICT plays in this dispensation has made the United Nations Development Programme (2001) to

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describe it as “powerful enabler of development” because of its significant impact on the economic, scientific, academic, social, political, cultural and other aspects of life.

Prospects of Library and Institutional Repository

With the latest developments around the world, there seems to be more awareness especially in the area of open access and open content. For Africa, there is need for strong commitment that is suitable for creating and maintaining the institutional repository in African University environment. The increasing awareness among the authors and researchers is a development that there is no doubt that the scholarly communications are poised for an exciting future. The increasing awareness among the authors and researchers is a very good sign for the future of scholarly publications. If Africa can follow suit and try to emulate their peers and governments, it will go a long way in establishing an intellectual network of scholarly information sources, which will certainly fuel the intellectual renaissance in Africa Universities. This will go a long way in consolidating the existing digital divide.

It is heartwarming that the current trends in library and its associated institutional repository have opened a window for wider access to information resources irrespective of place, space and time. The new information and communication technologies have added value to information creation, access, storage and usage to the benefit of all globally. The development is supported by digitization which improves access to library resources. Provision of access to digitized collections enables wider publicity for those materials across the globe. The implication is that it creates visibility to the author of the work, institution of the scholar and the nation being represented. Akintunde and Anjo (2012) stated that digitization holds great promise for preservation of materials, sharability of resources, and visibility of Nigerian libraries and institutions. The increase in Nigerian content on the Web will enable more meaningful and fruitful researches to be conducted through access to relevant data and literature. Nigerian libraries will also be able to communicate more professionally with colleagues in other parts of the globe. The choice and deployment of appropriate software will particularly bring contents together and provide a common platform for the exchange of knowledge in today’s knowledge society.

According to Bashiru (2010) today, - the global village being described on the basis of ICT as information rich northern hemisphere and information poor southern hemisphere of which Nigeria is one. A major characteristic of an information poor society is Low-level ICT with minimum local content on the web for local and global consumption. Nigeria can only be part of this global movement by using ICT to bridge the gap and cross over.

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Once institutional repositories are established in each institution the next step is to form a network of these repositories across the continent which will further enhance the academic and research capabilities of the continent. With the number of repositories inter-connected in gathering, evaluating, enriching, utilizing, sharing and disseminating scholarly communication there is no doubt that the research and development capabilities of African universities will gain momentum.

Such a consortium of repositories will not only serve for better research capabilities, it will also open the visibility of African scholarship to global level and stand as a suitable response to the existing digital divide (Anbu 2006).

Challenges

In this era of electronic publishing, academic institutions including universities have recognised that an institutional repository (IR) is an essential infrastructure of scholarly dissemination. An IR is a digital research archive consisting of accessible collections of scholarly work that represent the intellectual content of an institution. It is a means for institutions to manage the digital scholarship their communities produce, maximise access to research outputs both before and after Publication and also to increase the visibility and academic prestige of both the institution and authors.

There are a number of challenges identified facing the application of library and IR in Africa environment. As identified by (Pickton & Barwick 2006), these include the followings:- cost; difficulties in generating content; sustaining support and commitment; rights management issues; working culture issues policy issues and lack of incentives. In a similar manner, Ezeani & Ezerna (2011); Musa & Musa (2012); Eke 2011; Akintunde & Anjo (2012) cited in Musa et. al (2014) the following challenges were highlighted:- inadequate power supply; constant change of hardware and software, copy right issues; technical support and security; low bandwidth, technophobia, finance, legal aspects, lack of skilled personnel and lack of support from the community and sensitization.

Anbu (2006) in a paper titled “Institutional Repositories: Time for African Universities to consolidate the digital divide” noted that the challenges range from scope of such a project with issues of rules, the access and accessibility criteria, the policies and procedures.

Benefits

For a sustainable library and institutional repositories development of Africa, there is need to be able to ascertain the crucial benefits derivable. Anbu (2006) identified the following benefits:

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- a) The establishment of a network of Institutional Repositories in African Academic Institutions will pave way for better access to quality scholarly literature which will become freely available because of the open access mode of these repositories.
- b) There will be the reduction of time and cost in acquiring scholarly materials for the researchers because of the local availability of the content. The implications are a network of repositories will not only provide scholarly literature, but will provide the same at a lesser cost which will be a major boost for the cash-strapped African libraries.
- c) A consortium of repositories will also result in the increase of research and teaching tools for African researchers and lecturers. With every institution publishing its intellectual output into their respective repository, the chances of duplication in research in a specific field among the institutions and across the continent will become less. At the same time research in a particular field in different geographical, ethnical, cultural and intellectual environment will also become a possibility. All these different dimensions to research will result in the increase of research output which will eventually result in quality research and development projects in Africa.
- d) It is also beneficial that a consortium of repositories will add to the visibility of African scholarship as a whole and the visibility of each and every individual institution's intellectual output in particular. Current closed access publishing models does not portray the quality and quantity of research done in African universities and by African scholars. The visibility and integrity of each institution will be determined by the work reflected in their repositories hence a network of repositories will not only produce qualitative research work, it will produce in quantity because the prestige of each institution will be at stake in terms of quality and numbers

In a similar manner, (Johnson, 2002, Pickton & Barwick, 2006, Lyte et al, 2009, Jam, 2010) cited in Jam (2012) identified the benefits to the academic institution, individual authors and libraries. An academic institution benefits by increasing its visibility and prestige; it is a tool to market the institution to attract high quality staff, students and funding; a venue for the centralisation, storage and long term curation of all types of institutional output, it supports learning, teaching; and “research to attract a global audience; it is a way of maximising availability, accessibility, discoverability and functionality of scholarly research outputs at no cost to the user.

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An IR offers several benefits to authors, such as: increased dissemination and impact of scholarship; enhanced professional visibility due to broader dissemination and increased use of publications; greater security and longer term accessibility of material compared to a personal web site; a central archive of researchers work; and possibility of large scale collaborations (Johnson, 2002, Bankier and Perciali, 2008, White, 2009, Lyte et al, 2009, Jam, 2011). An IR provides increased visibility and institutional presence to librarians. Through IR librarians have the opportunity to work hand-in-hand with academia. By virtue of being subject specialists, librarians are ideal to work more closely with faculties to promote the repository. Libraries can benefit by leading the way and providing the skills required to develop and run an effective IR. For example, they can lead in copyright checking, metadata creation, authority control &c, if not championing the entire project (Walters, 2007, Daly & Organ, 2009, Bankier, Foster, & Wiley, 2009, Jam, 2010). IRs are helping libraries reinvent themselves and subject librarians can act as change agents in support of the adoption of IRs. An IR can be beneficial to libraries in numerous ways such as providing opportunities for increased visibility and institutional presence, and working hand-in-hand with academia.

Role of Librarians

In the entire process, the role of librarians and authors are crucial. Nixon (2002) rightly observed that “Reference librarians are a library’s eyes and ears. They understand users’ needs and perceptions. When they act as subject selectors, they are the library’s primary liaison with faculty in their subject areas and its most visible representatives. The librarians also engage in advocacy, building content, collection administrators and metadata specialists and training.

The role of the authors is worth mentioning. Equally then, the real challenge is not the technical implementation of the IR but rather the cultural change necessary for it to become embedded in the activities and normal behavioural pattern of researchers (Chan et al. 2005). The role of the authors include uploading the research output; responding to questions and comments posted by readers; updating materials especially pre-print articles and work in progress; ensuring high quality and standards of materials and negotiating copyright issues with publishers and is always done before publication of papers.

Conclusion

Today, the library and institutional repository has a central and integral role to support the development of Africa particularly in area of education and learning. The library and librarian have to evolve new ways to support the management of information resources. Library resources should be developed from print to digital formats and

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should be easily accessible through portals that provide specialized searching options for high value collections and thus expose library digital collections to the world through institutional repositories and search engines.

Recommendations

Based on the findings of this work, the following recommendations were made:

1. In today's world, ICT has taken a centre stage in the collection, processing, storage, access and distribution of information. To this end, stakeholders should create awareness on the importance of Open access and institutional repository. This is a laudable means by which intellectual content of researchers, institutions and nations can be made visible and for a wider reach.
2. Tertiary institutions like universities where serious intellectual work is carried out should pursue vigorously the establishment and sustenance of institutional repositories with a view to promoting digital scholarship. The librarians should encourage their institutions to step up on the need to digitize and contribute to open access content. In so doing, the responsibilities and importance of librarian would have been enhanced.
3. In the pursuit of digital scholarship, it is important for institutions to set up a robust information technology infrastructure. The system should take cognisance of likely future update that is capable and sustainable for elaborate and appropriate quality information delivery process.
4. Management of institutions should initiate policies and strategic plan that would encourage mandatory deposit of scholarly works in open access archives.
5. Government of African countries should clearly understand the fact that we are lagging behind in the generation, access and utilization of relevant information for sustainable development. To this end, government should reduce the cost of ICTs to make access encouraging. This can further be supported by improvement in internet connectivity and robust telecommunication infrastructure.
6. It is desirable for well meaning organisations in Africa to support research projects which will in turn increase publications that can add value to the open access project.

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7. Institutions should encourage the research efforts of its workforce by subsidising the payment of author's fee to publish in open access publications. Also there is need for a policy that can support published materials on Open Access window in promotion and tenure evaluation.
8. The world has become a global village. By this, if the international organisations like the United Nations, African Union, World Health organisations, UNESCO among others realise this fact, it beholds on them to formulate policies that will act as impetus to encourage African states to promote creation of institutional repositories which will open up our intellectual content to the wide world.
9. The International Federation of Library Association (IFLA) African Section, should work with various National Library Associations to pursue visibility and interoperability of institutional repositories.

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