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Digitization of Libraries/Archives and Development

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Libraries and archives are essential components of any strategy aimed at improving information access, both for the public at large and for other specialised groups, including students and researchers. Information in all its forms is an important vehicle for knowledge development, which contributes enormously to the socio-economic development of societies and nations.

Development of societies and nations – what do we mean?

There are many ways of measuring development, but my thinking is that development in any society should be measured on the basis of the following, among other factors:

- Relatively high levels of per capita GDP;
- Advanced productive sectors (including service and high technology industries);
- High quality infrastructure and social services;
- Ability to undertake relatively high levels of research and innovation.

This perspective recognizes that development is, to quote Mahbub ul Haq, Founder of the Human Development Report[1]

> "...more than the rise or fall of national incomes. The most basic capabilities for human development are to lead long and healthy lives, to be knowledgeable, to have access to the resources needed for a decent standard of living and to be able to participate in the life of the community. Without these, many choices are simply not available, and many opportunities in life remain inaccessible."

From the preceding statement, development means higher Gross Domestic Product (GDP), better quality of life and a state of national being and consciousness in which information and knowledge are both cause and effect.

Throughout the African continent, libraries and archives hold very large quantities of documents and other heritage material, in original formats or photocopied or scanned and stored in one way or another as a means of preserving them. In most of these formats, however the

[1] http://hdr.undp.org/en/humandev/

materials are not accessible to the largest possible number of users – which must be the main objective for any collections in a library or an archive.

Africa needs to develop a system that will enable its human resources to easily access information and build knowledge that will enhance socio-economic growth and development. Information about the cultures of different communities and nations, for example, will enhance inter-cultural understanding and appreciation and most probably help to reduce regional and even international conflicts which act as obstacles to sustainable development.

Apart from the cultural area, information exchange on other issues of importance, including agricultural practices, trade, industry and research methodologies, will definitely go a long way towards enhancing knowledge and skills development which will help growth in these areas and, in the long run, societal development in general.

I would like to refer us to the key principle of the World Summit on the Information Society (WSIS), which refers to

> "our common desire and commitment to build a people-centred, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life, premised on the purposes and principles of the Charter of the United Nations and respecting fully and upholding the Universal Declaration of Human Rights".

This statement clearly recognizes that an infrastructure which enables enhanced access to information will in the long run lead to enhanced and sustainable development of society.

One way in which access to information may be enhanced to enable more people to accumulate and exchange knowledge is through the digitization and digital/electronic dissemination of the material collections of Libraries and Archives.

Digitizing Objectives

One can identify the following objectives for digitizing library/archival material for public access:

- Provide online access to increased numbers of materials;
- Enhance preservation of records by reducing wear and tear on the originals for reference and reproduction;
- Provide access to those materials that can no longer be accessed in their original format;
- Enhance users' understanding of records authenticity and archival context (e.g., who created the records; why they were created; how they were used);
- Use resources effectively. For example, original records that have been digitized may be relocated to less expensive archival storage locations. Partnerships, where the partner

provides resources for digitizing, would expand the scale of digitizing beyond what an individual institution can do;

- Improve services to customers consistent with their evolving expectations and with consideration of the institution's available resources and customers' willingness to pay for value-added or convenience services;
- Promote equitable access to information by the public.

Benefits

So what are the benefits of digitizing? In summary the advantages offered by digitization tend to fall under headings such as increasing access, preservation, and meeting strategic goals (i.e., raising the profile of the institution running the project, and so on).

The first, allowing increased access to the object, is the most frequently cited benefit of digitization. An electronic facsimile of a page, for example, can be theoretically copied and distributed ad infinitum without any degradation in quality (if correct standards are maintained). More important, a single copy can be mounted on a server (most commonly a Web server), and this can be viewed and downloaded by a large number of users (possibly in the region of hundreds of thousands), simultaneously, and from any location in the world (assuming appropriate access restrictions and server technology).

Many libraries and archives in Africa have already recognized that the time for going digital is now, and initiatives have been undertaken to transform material in their collections into digital formats that can easily be disseminated electronically to a wider audience.

Digitizing for public access

For the purposes of this document, "digitizing" should be understood not just as the act of scanning an analog document into digital form, but as a series of activities that results in a digital copy being made available to end-users via the Internet or other means for a sustained length of time. These activities include:

- Document identification and selection;
- Document preparation (including preservation, access review and screening, locating, pulling, and refiling);
- Basic descriptive and technical metadata collection, sufficient to allow retrieval and management of the digital copies and to provide basic contextual information for the user;
- Digital conversion;
- Quality control of digital copies and metadata;
- Providing public access to the material via online delivery of reliable and authentic copies;
- Providing online ordering for reproduction services at quality or quantities beyond the capacity of an end user;

- Maintenance of digital copies and metadata.

The development of information technologies, and in particular the Internet, has created a completely new environment in which the role of traditional information services must be thoroughly revised. The potential of networking, cooperation and digitization modifies substantially the functions of acquiring, storing and disseminating information and knowledge which has the potential of allowing people to reach the goal of universal access to knowledge.

Challenges/problems/barriers

There are several challenges to this opportunity, and these have been an impediment to this noble process. Some of these challenges, at local levels, include:

- Level of internet accessibility on the continent;
- Lack of policy frameworks at national levels;
- Technological problems of obsolescence of software and hardware and difficulty in up-grading these as a recurring need;
- Level of internet literacy on the continent;
- Fear of intellectual property piracy;
- Insufficient institutional capacity, both at human resource and equipment level;
- Low prioritization by Government budgetary allocations;
- Greed: unwillingness to collaborate and partner in projects.

At international levels, the challenges and issues are more complex. They revolve around the fact that most digitization initiatives in Africa are donor-funded. Donors have their own interests and agendas and proposals to request funds have to be in line with the funding conditions of the organizations. Amongst these issues are:

- Fear of being exploited in the process of sharing knowledge through digitization;
- Suspicion that the temptation of financial aid might produce a new form of imperialism;
- Issues of connectivity and internet literacy;
- Protection of intellectual property rights issues;
- Decision-making on what is being digitized, and for whom it will be accessible;
- The costs of new technologies and the process of digitization;
- Possibilities of developing local technologies and systems instead of relying on foreign ones;
- Investments that should be focused on these at a continental level rather than at implementing programs which are English, French and similar;

What needs to be done to address these challenges? I will not pretend to know the answer to this question. However, I believe that digitization and digital/electronic dissemination of information is important, necessary and urgent in Africa to help develop knowledge and skills

that will drive socio-economic development of our societies. There is therefore a need to address the following issues:

1. National level policies that must be formulated for digitization and creation of digital libraries and archives;
2. Sustainability issues for long term access and preservation of digital resources;
3. Ensuring access to African information at all levels to eliminate the "digital divide" on the continent and ensure benefit from the digitized resources for the majority.

Policy

Digitization policies cannot be formulated in isolation but should lie within the broad spectrum of information policies in the new environment. Policies must consider the priorities of information flow and services in the broader context of development. The main factors for development to be taken into consideration while preparing a policy framework include:

- Education and lifelong learning for all citizens;
- Information to enhance participation in the socio-economic arena in a democratic environment;
- Traditional knowledge and cultural heritage preservation;
- Historical evidence and community histories.

Sustainability Issues

African digitization programmes are in their initial stages. In this situation of "hype", it is hardly understood that applying digital technologies will be a complex process of experimentation, with gains and losses, triumphs and failures. It is of course fashionable now to undertake digitization projects to preserve our heritage, but little is being done to prepare long-term strategies to sustain these efforts, preserve the digital materials for posterity and make them available for access in the future.

We need to focus on the following issues to address a broad spectrum of sustainability concerns:

- Policy and strategy
- Technical issues
- Economic aspects
- Social and Educational issues
- Cooperative ventures
- Political and administrative will
- Capacity building

Access to bridge the digital divide:

Just as printing technology assured mass production of the written document and knowledge transfer to a much larger group of people, present IT developments allow a much wider reach,

especially through the internet. The benefits of these facilities is however restricted to the urban elite, a minority in Africa. We need to plan to bridge this knowledge/information divide in the most effective manner:

- Access to Internet and no access: the availability of telecommunication and other basic infrastructural facilities;
- Internet user and non-user: the availability of technology and economic feasibility;
- Those who know the English language and those who do not: educational and language barriers.

Other issues

One of the things that has to be done is ensure that all digitized information, if deemed important and of value, is first either patented or given intellectual property protection before being released on the Internet or any other electronic channel.

Lobbying needs to be done among governments so that they "see" the importance of knowledge among peoples and the role digitization and electronic transfer of such knowledge will play to enhance access, so that in their annual budgets, governments may allocate adequate financial resources to the process of digitization and library and archives.

These are only a few of possible interventions. There are, I believe, many more,.

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