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The Use of Information and Communication Technologies (ICTs) in African Public Library Services

The existing literature on the use of ICTs within African libraries mostly describes the situation within academic and specialist libraries, but there is little about the use of computers in public libraries. To investigate the current level of use of ICTs and plans for the future within the public library environment a survey was undertaken of 22 public library services in ten English-speaking African countries. The results indicate great disparities in the level of access to computers between the countries, and within country, and indicate a need for more funding and appropriate training.

The adoption and use of information and communication technologies (ICTs) in African libraries began in the early 1980s, with the introduction of the microcomputer. However, the available literature indicates that developments were mainly confined to the university and research library sectors. Yet national and public libraries, with their large numbers of registered and potential users, are in a position to contribute enormously to efficient and fast access to digital information resources and services. They are ideally placed to serve as universal access points to global information in their communities. With the objective of documenting the current use of ICTs in public library services in sub-Saharan Africa, INASP commissioned Justin Chisenga, a Zambian information professional currently working in Ghana, to undertake a survey in 2003.

The survey

The survey covered public library services in Botswana, Ghana, Kenya, Malawi, Nigeria, South Africa, Tanzania, Uganda, Zambia and Zimbabwe. Examples of national library services as well as those for provinces, states, municipalities and cities were included. To provide a clear picture of the situation across different types of libraries, a number of libraries run by NGOs or not-for-profit organisations were also considered. The criteria for inclusion within this survey restricted invitation to libraries who had access to at least one computer and who had already started to use computers to support their services. One immediate finding of the survey was that identifying such libraries was difficult and it is likely that the majority of public libraries in Africa are yet to acquire computers.

Twenty-two libraries completed a structured survey questionnaire designed to collect data on the use of ICTs. The questions posed in this survey covered a range of issues, including those listed below.

- *General institutional information.* The participants were asked to provide the number of libraries which made up their service, including the number of professional staff, the size of the target population and the number of users/visitors per week.
- *ICT facilities.* To quantify existing infrastructure participants were asked for information about current and planned library and hardware infrastructure.
- *Library automation.* To gauge the level of automation of the services undertaken within the libraries, information was requested about the types and number of functions and activities that were currently automated, including the number of libraries within the service that used an automated system, the name of the system and how these developments had been funded.
- *Internet connectivity.* To provide information about possible restrictions on development of ICTs, participants were asked to describe the type of connectivity available within their library services, including the available bandwidth, the costs of provision, details of the library's Web site (if one was in existence), and information about the provision of Web-based services to users and the community.
- *ICT support and staff skills.* To identify the skills available, questions were included regarding the availability of technical support for ICT facilities in the library and in particular the ICT skills of library staff and their ability to deal with ICT issues.

- *Expenditure on ICTs.* To provide information about expenditure, participants were asked about what investment had been made in hardware, software, support services, and connectivity expenditure for 2002 and 2003 and what changes to these expenses were anticipated for 2004.
- *ICT strategy and policy.* To see if ICT development was being undertaken to a plan, or on an *ad hoc* basis, participants were asked about the availability of a written ICT plan or strategy within their library service (or the parent institution), and the content of the strategy if it existed.
- *Barriers to use of ICTs.* Opinions were sought to identify any factors or issues which may hinder the implementation and use of ICTs in public libraries, in order to quantify their impact on the community.

In addition to providing answers to the questionnaire, eighteen of the libraries contributed case studies. All were written by practising library and information specialists involved in the management of public libraries, and in some cases in the implementation of ICT projects in public libraries and providing training in library and information science. The case studies provide in-depth information and opinions about the process of computerisation and about problems presently faced and anticipated in the future.

Table 1: Public library services that participated in the survey

| | |
|--------------|---|
| Botswana | Botswana National Library Service |
| Ghana | Ghana Book Trust Children's Library Ghana Library Board |
| Kenya | Kenya National Library Service Nairobi City Library Services |
| Malawi | Malawi National Library Service |
| Nigeria | Kano State Library Board Plateau State Library Board, Jos |
| South Africa | City of Johannesburg Library and Information Services Ermelo Public Library, Msukaligwa Municipality eThekweni Municipal Libraries Free State Provincial Library Service Mpumalanga Provincial Library and Information Service Mbombela Municipal Libraries Govan Mbeki Municipal Libraries Emalahleni Local Municipal Council Library |
| Tanzania | Tanzania Library Services Board |
| Uganda | Nakaseke Multipurpose Community Telecentre and Library National Library of Uganda |
| Zambia | Zambia Library Service |
| Zimbabwe | Bulawayo Public Library National Free Library of Zimbabwe |

Findings

Within the library services surveyed there are great disparities in the level of access to computers. Nevertheless, the following trends are evident.

- Public libraries, like university and special libraries, are adopting modern information and communication technologies, including use of the Internet and email. However, the use of ICTs in automating library functions and the provision of digital information services is very limited in most libraries.
- The use of commercially available integrated library management systems is largely limited to library services in South Africa and Botswana. Public libraries in most countries are using the free CDS/ISIS bibliographic database management software available from UNESCO.
- The deployment of ICTs in most public libraries is being done on an *ad hoc* basis since most services do not have ICT strategies in place to guide and enable them to make effective use of the technology.
- Most public library services do not have budgets for ICTs. In most cases, funding for the acquisition of ICTs is provided by both local and international funding agencies. However, public libraries in some countries, particularly in Botswana and South Africa, are also benefiting from funding provided by central, provincial or local governments.
- Public libraries are establishing Internet connectivity, some are providing computers for Internet access by library users and some have developed library Web sites. However, the provision of library and information services via the Web has not yet taken place. The Web sites of most African public library services (where available) simply provide the type of information that is generally found in library brochures.
- Some public libraries have set up cyber cafes as a way of providing access to ICT facilities for their communities and also as a means of raising funds to sustain the Internet connectivity.

The introduction and effective use of ICTs in public library services is being hampered by a number of factors. The major barrier identified by the libraries surveyed is lack of adequate funding, and in some cases a lack of commitment from the parent organisation. Public libraries are generally poorly funded and as a result a large number depend on external assistance and funding for their ICT projects.

Other barriers included inadequacies in existing ICT resources, and an out-of-date ICT policies.

Staffing problems were also cited – few ICT-qualified staff plus the difficulty in recruiting and retaining ICT-qualified staff. There was an awareness of the need to train library staff in appropriate ICT skills, and to improve the skills of library users, but high costs and limited skills precluded this.

Recommendations

The survey findings recognised that efforts were being made by sub-Saharan Africa public library services to acquire and use ICTs, but that assistance and support are required to ensure effective implementation and use of the technologies.

It should be noted that the survey was restricted to countries in Anglophone Africa and to libraries that have already embarked on the use of ICTs. In order to complete the picture, it would be useful to survey public libraries in other countries on the continent and to find out about those libraries that have yet to use computers and the reasons why. The author has expressed the view that these libraries might be in the majority. Such an additional survey might result in new recommendations.

Bearing in mind the restrictions imposed on this survey, it nevertheless produced findings that clearly identified areas for concern and provides recommendations for the public libraries themselves and the organisations which support them.

Funding

Central and local governments should provide adequate funding to public library services if they are to deploy appropriate ICTs and play an active role in the provision of access to global information resources in their communities.

Support

One of the findings was that many public libraries feel there is a lack of support from their parent organisation and there is a strong recommendation that parent organisations become more committed to providing support to their library services, to enable development of ICT infrastructure and implementation.

ICT strategies

There is a need to assist public library services with the development of formal ICT strategies. In their absence, most of the libraries will continue using ICTs in an *ad hoc* manner, which in the long run will not be cost-effective.

Innovation

There is a need to make innovative use of the Web in the provision of public library services to users. This will only be possible if staff are equipped with appropriate skills relating to digital information resource management and to the provision of Internet-based library and information services.

Information exchange

Some libraries, especially in South Africa, have moved a long way forward in ICT adoption and now have a wealth of experience in library automation and ICT use. Libraries embarking on automation need to find ways of benefiting from this experience, which is especially

relevant to their conditions and situation. There is no longer any need for previous mistakes to be repeated and best practice can be incorporated into ongoing plans. All too often it seems that libraries which automate depend on the information provided by software vendors. Many libraries are looking to generate income from ICT-based services, for example by setting up cyber cafes. The results of these initiatives in other libraries should be shared, through conferences, workshops, formal and informal meetings, and perhaps in staff exchanges or placements. To support this information exchange programmes and support mechanisms need to be established.

Training

Lack of training was identified as a barrier to ICT adoption. The survey specifically recommended training in both institutional ICT strategy development and methodologies for implementing the Web to provide user services. A lot of ICT-related training is already being provided to librarians in Africa (by external agencies or internal mentoring and training programmes). Some of it is *in situ*, some regional and some overseas, using a variety of methods, including workshops and attachments. There are also relevant training materials available on the Web. However, very few impact studies leading to conclusions as to which methods and materials give the best results have been carried out. Training needs to be more rigorously evaluated and the results publicised.

Advocacy skills

The survey recommended that local and central government funding is a necessity if ICT use is to be maintained and developed in public libraries. Donors may provide initial funding but then the onus will fall on local sources. Public libraries, which rely for the most part on government funding therefore need to develop good advocacy skills. They need to convince their parent bodies that their services are essential to the well-being of the nation and contribute to economic development. Training in advocacy and public relations should be perceived to be as important as training in the skills to use ICTs.

Standards of provision

Within the public library sector in Africa there is a definite indication that standards of ICT provision and models of good practice are needed by everyone, everywhere. If these could be provided then those libraries developing ICT services would know the ideal level of services for which they should be aiming and the best ways to reach this level. Such standards could also be used in requests for funding. Standards and models are yet to be developed. The survey provides some of the necessary data through its questionnaire and case studies: however, much more research would be needed, particularly in evaluating the performance and impact of services that have been already been developed.

More information

This report was commissioned following a meeting in 2002 of the African public librarians in receipt of Carnegie Corporation of New York (CCNY) grants. The report was commissioned from Justin Chisenga, an information professional from Zambia.

INASP would like to acknowledge the support of Carnegie Corporation of New York for the preparation of this survey.

Full report

The full report provides more detailed findings and conclusions, and printed copies can be obtained from INASP (address below).

The use of ICTs in African public library services: a survey of ten countries in Anglophone Africa
Edited by Justin Chisenga. Oxford: INASP, 2004.
128 pp. ISBN 1 902928 23 7

The full report is also available on the INASP website:
<http://www.inasp.info/pubs>

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The mission of INASP is to enable worldwide access to information and knowledge with particular emphasis on the needs of developing and transitional countries.

Established in 1992, we work with partners around the world to encourage the creation and production of information, to promote sustainable and equitable access to information, to foster collaboration and networking and to strengthen local capacities to manage and use information and knowledge.

We act as an enabler, connecting worldwide information and expertise. Working through networks of partners, we aim to strengthen the ability of people in developing and transitional countries to access and contribute information, ideas and knowledge. In particular we seek to:

- Improve access to scientific and scholarly information
- catalyse and support local publication and information exchange
- Strengthen local capacities to manage and use information and knowledge
- Foster in-country, regional and international cooperation and networking
- Advise local organisations and agencies on ways to utilise information and publishing to achieve development goals.

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