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# The State of Document Deterioration in the National Archives of Ghana

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## Abstract

*A survey of the condition of documents in the National Archives of Ghana was conducted. A stratified proportionate sampling technique was used to select 600 documents from five repositories for examination. The results of the survey show that 63 per cent of the documents had pH values of below 5, 31 per cent were brittle, 77.3 per cent had fading texts, 94.3 per cent had turned brownish and 85.6 per cent had indications of fungus infestation. In all, 51.5 per cent of the documents were in need of urgent treatment. The study established that the situation resulted from a combination of factors, paramount being the unfavourable storage conditions. The implications of the findings of the study for Ghana were highlighted. Recommendations put forward include among others, mass deacidification of documents, sustained programme of fumigation, purpose-built archives for the regions, environmental monitoring and control measures, staff recruitment strategies and the institution of a comprehensive preservation and conservation policy.*

## Introduction

Ever since Barrow's (1959) study of book stock, several studies had been carried out to determine the state or condition of documents in several institutions, with revealing results. For example, in 1973 the Library of Congress estimated that 34 per cent of its total collection of 17 million books were either completely unusable or damaged (Harvey, 1992). The 1979 Stanford University survey concluded that 32.8 per cent of the Green Library Collection were in good condition; 40.8 per cent in moderate condition and 26.5 per cent in poor condition (Buchanan & Coleman, 1979). The famous Yale Survey revealed that 37.1 per cent of the Yale Library system's collections were brittle; 82.6 per cent were acidic (pH under 5.4) and 25 per cent mutilated (Walker et.al, 1985). According to Alegbeleye (1996), statistics from these series of surveys may serve two purposes. They may console custodians who may otherwise have the erroneous impression that their problems were unique and secondly, they may spur other nations and institutions to carry out surveys on the condition or state of their collection as a stage in the direction of preserving them.

In more recent times, surveys conducted in the US have shown that 80 per cent of books in research collections were printed on acidic paper and 30 per cent were brittle beyond redemption (Bellagio Report, 1996). In England, a survey conducted by the Oxford University on the condition of collections at its 122 libraries and archives revealed that more than a quarter of a million volumes out of 9.7 million were estimated to have structural damage (Bellagio Report, 1996). Similarly, the results of a survey of a large number of Dutch collections conducted by the Advisory Council for Libraries and Archives found that at least three million books in the collection were in such poor condition that they would be lost if no

action was taken (Bellagio Report, 1996). Alegbeleye's survey of book deterioration at the University of Ibadan Library found out that 81 per cent of the collection was brittle (Alegbeleye, 1996). The trend from the surveys cited suggests that the deterioration of documentary materials is similar in nature and scale, varying only from country to country according to environmental factors, particularly climate. This article discusses the results of a survey of documents of the National Archives of Ghana.

### The National Archives System

The National Archives of Ghana (NAG) derives its legal authority from the Public Records and Archives Administration Act that positions it as a division of the Public Records and Archives Administration Department (PRAAD) (Act. 535, 1997). The main function of the division, among others, is to exercise custodial responsibility for all public records of permanent value and make them physically and intellectually accessible to government officials, researchers and individuals within the regulatory framework. Article 14 of Act 535 specifically enjoins the Director of PRAAD to be responsible for the preservation of all public records of permanent value and to provide in the national and regional archival repositories, suitable conditions for the preservation of records and access for their consultation by the public. For the National Archives to be able to play its expected role, it is structured into seven regional offices and repositories all over the country with the headquarters in Accra.

### The Objectives of the Survey

The study was designed to determine the state of deterioration of documentary materials in the National Archives of Ghana. Specifically, the survey investigated the following among others the:

- level of acidity of documents
- level of brittleness
- extent of fading
- level of mouldiness of documents
- extent of mutilation
- security provision
- primary and secondary housing conditions.

### Methodology

The survey covered the collections at the repositories of the Head Office in Accra; the Ashanti Regional Office and the Northern Regional Office. It concentrated on paper documents only to the exclusion of microforms, audio-visual and electronic records. These other categories of records were seen or presumed to have special and better endowed storage facility and environment.

### Pilot Study

Due to the complex nature of collection surveys, the researcher placed a very high premium on a preliminary run-through of the survey on a small scale. A pilot study of 50 documents in one of the repositories in Accra was carried out. The pre-test helped to identify and eliminate problems such as ambiguous questions and duplications. The writer took advantage of the pilot study to organise training for the surveyors who were used to undertake the assessment. The surveyors were taken through the following among others:

- consistency in locating items
- detailed instructions on how to complete the survey forms.
- knowledge of document structure
- identification of damages
- conducting acidity test
- conducting fold endurance test.

### Survey Implementation

The collection survey was carried out almost immediately after the pilot survey. This was done to ensure that the knowledge the surveyors acquired during the pilot stage was freshly carried to the field (repositories).

Six archives assistants of the National Archives of Ghana and ten second-year diploma students of the Department of Information Studies were used to carry out the survey in the five repositories. These two categories of people were selected and trained as surveyors to carry out the survey because they had been exposed to some level of knowledge in preservation of documents during their training programme at the University of Ghana. In addition, the archives assistants also had varying degrees of experience in the field. These qualities facilitated the success of the survey.

Prior to this, climatic data (temperature and relative humidity) in the three repositories in Accra were collected over a period of one year. Unfortunately, due to the inadequacy of equipment and some other logistic problems, readings could not be taken from the Kumasi and Tamale repositories.

## Findings

In all, a sample of 600 items were proportionately selected from the five repositories that were surveyed. In general the findings were very revealing because most of them confirmed previous results and estimates of the scope of collection deterioration and preservation problems all over the world. In other cases, the findings provided new information for further work.

## Types and Structure of Documents Surveyed

The National Archives of Ghana holds a varied range of documentary materials, including paper and film

**Table 1: Categorisation by Item Type and Structure**

Item Type	Bound	Unbound	Total	%
Newspaper	21	3	24	4.0
Photographic Material	-	5	5	0.8
Manuscript	-	4	4	0.7
Map	1	9	10	1.7
File	1	330	331	55.1
Book	200	2	202	33.7
Report	20	4	24	4.0
Total	243	357	600	100

base materials. A greater part of the sample is made up of paper files (55.1 per cent). Reports and newspapers constitute 4 per cent each with maps 1.7 per cent, photographic materials 0.8 per cent and manuscripts 0.7 per cent, constituting insignificant components of the sample.

Also, in the sample of 600 (the selection process was such that no document was missed), 40.5 per cent were found to be bound, thus making them more secure structurally, while 59.5 per cent were unbound. A cross-tabulation of item type by item structure (table 1) reveals that 87.5 per cent of newspapers, 99 per cent of the books, and 83.3 per cent of reports were bound, while 99.7 per cent of files were unbound. This categorisation of the structure of items in the sample relative to the type of document is very relevant for the subsequent detailed analysis of the condition of the collection.

## Accommodation, Protection and Security

The storage facility and environment is very critical to the longevity of archival documents. In addition, the secondary protection such as bindings, wrappers, boxes and envelopes cannot be ignored. They contribute to the longevity of documents. The analysis of data revealed that 74.8 per cent of the items surveyed had protection in the form of boxes or wrappers. About a quarter (25.2 per cent) had no protection, implying that they were stored bare on the shelves and thereby leaving them at the mercy of the direct impact of the storage environmental agents such as dust, dampness, heat, insects and micro-organisms. A follow-up observation in the repositories revealed that most of the unprotected documents were bound items such as newspapers and books, particularly very bulky court record books.

**Table 2: Structures and Status of Primary Protection**

		Structural Damage: Folder binding intact?		Total	
		Yes	No		
Item Structure	Bound	Count	188	55	243
		Row %	77.4%	22.6%	100.0%
		Column %	39.4%	44.7%	40.5%
	Unbound	Count %	289	68	357
		Row %	81.0%	19.0%	100.0%
		Column %	60.6%	55.3%	59.5%
Total		Count	477	123	600
		Row %	79.5%	20.5%	100.0%
		Column %	100.0%	100.0%	100.0%

Interesting revelations came out of the analysis of cross-tabulations of the structure of document and the status of primary protection. Contrary to expectations, higher proportions of bound items (22.6 per cent) had their bindings detached as compared to 19 per cent for unbound items (Table 2).

This should, however, be viewed against the background that bound items constituted only 40.5 per cent of the sample. The findings however point to a relationship between secondary protection (boxes, wrappers, etc) and primary protection (folders, bindings, etc.)

### Types and Extent of Damage

Most archival materials are organic in nature and for that reason will ultimately deteriorate. According to Harvey (1992), the rate at which materials deteriorate is determined by two factors. These are the inherent chemical stability of the material, and the external actions that affect the material. One major objective of the collection survey was to identify and quantify the structural, chemical and biological damages to the collection of the National Archives, using the sample.

and flicking documents over. The results of the survey revealed a very low degree of physical damages to the collection. In the first place, in the sample of 600 items, 39.2 per cent were found to have creasing or torn leaves whilst 60.8 per cent had their leaves intact. In addition, it was found that a majority (74.3 per cent) of the documents had their leaves firmly held together and only 25.7 per cent had loose and protruding fragments of leaves. To cap it all, majority (70.8 per cent) of the items were found not to have any signs of mutilation, leaving only 29.2 per cent with mutilation traits. On the whole, the problem of physical deterioration was found to be moderate. This compares favourably with the findings of Walker, et al (1985) and Alegbeleye (1996).

In the case of the National Archives of Ghana, the low rate of physical damage and mutilation can be explained by the low level of access and use of the collection. The analysis revealed that only 2.3 per cent of the sample of 600 had heavy demand; followed by 13.9 per cent with medium demand and the majority (83.8 per cent) having low demand and use. A cross-tabulation of demand by item, paints a better picture of the levels of use of items, (see Table 3).

Table 3: Item Type and Its Demand

Item Type	Demand for Item			Total	Percentage
	Low	Medium	Heavy		
Newspaper	15	9	-	24	4.0
Photographic Material	5	-	-	5	0.8
Manuscript	4	-	-	4	0.7
Map	10	-	-	10	1.7
File	295	28	8	331	55.1
Book	152	44	6	202	33.7
Report	22	2	-	24	4.0
Total	503	83	14	600	100

### Physical Damages

The abuse and mismanagement of documentary materials are major contributors to physical degradation. These include, among others, careless handling, insecure stacking, excessive photocopying,

Table 3 reveals medium demand for newspapers and low demand for photographic materials, and manuscripts, reports and map items within the sample. Files and book items also had relatively low demand (2.4 per cent and 3 per cent respectively).

### Chemical Damages

For the purpose of this article, chemical damages refer to the degradation of documentary materials resulting from the impact of factors such as temperature, relative humidity, light and pollution within the environment.

### Acidity/Alkalinity of Documents

There is no doubt about the fact that excessive acidity is the single most serious cause of paper degradation. The pH value is a very reliable measure of acidity. pH is a measure of the hydrogen ion concentration of a substance. Acids have pH below 7 (1 - 6), while alkaline have pH values above 7 (8 - 14).

According to Walker et al. (1985), pH establishes a direct correlation between paper acidity and longevity. The more acidic the paper, the more short-lived it is. While expressing the difficulty in specifying an exact limit of pH value below which rapid acidic deterioration may take place, Alegbeleye (1996) agrees with other investigators that for permanence, pH should not be below 5.4 (Walker et al. 1985). In other words, pH of 5.4 and below is considered as being very acidic. There are varying methods of determining the pH of paper documents. It could be measured through the use of bromocresol green chemical, as was in the case of the famous Yale Survey (Walker et al. 1985), or through the use of indicator strips, as in the case of the University of Ibadan book deterioration survey (Alegbeleye, 1996). In addition, pH metres could also be used.

For the purpose of this survey, the indicator strip approach was adopted. The advantage this has over the bromocresol green approach is that it leaves no stain on the document. BDH laboratory indicator strips were used. The fourth page of every document was tested. If the item was a single sheet such as a map, the single sheet was tested. In situations where the item had multiple pages but not up to four pages, the last page of the document was tested. Even though earlier studies selected pH 5.4 as the benchmark for determining excessive acidity, this work selected pH 5 because of the difficulty in determining decimals since the colour chart did not make allowance for decimals. Consequently, results obtained were cautiously approached. Nevertheless, the results compare fairly with similar findings in other studies.

The results of the survey revealed that 63 per cent of items tested had pH below 5, indicating high acidity. This corroborates findings in the University of Ibadan book survey; the Wellesley library survey and the Yale survey, where 67 per cent, 65 per cent and 82 per cent of items respectively were found to be highly acidic. Mwangi (1994) also found out in a survey of bibliographic materials in selected libraries in Kenya that 73.3 per cent of the sample was very acidic with pH of below 4.

The high percentage of items with frightening levels of acidity is not surprising, given the fact that the storage environment of the archives is "hostile" and conducive to progressive acidification of paper documents. Between the mid-1970s and the early 1990s, the air-conditioning facility in the repositories at the headquarters was non-functional. Since the early 1990s, even though the situation got rectified, the performance of the facility has been very erratic, resulting in fluctuations in the temperature and relative humidity regimes.

The situations in the Kumasi and Tamale repositories were no better. Continuous exposure to acidic gases from automobiles and industrial plants further accelerates the acidification process. In addition, it is likely that the secondary protectors of the documents (boxes and wrappers) may not be acid-free, and hence, transferring acid to the documents on contact.

### Brittleness of Documents

Research has confirmed that brittle paper documents are very difficult to repair or bind and, most often, cannot withstand photocopying and heavy use. Brittleness may result from desiccation caused by high temperatures among others. According to Walker et al. (1985), the test for brittleness is fairly simple and objective. Alegbeleye (1996) refers to it as the fold endurance test, which considers the number of double folding as a measure of brittleness. This approach was adopted for this study. The top corner of the fourth page of every item was folded back and forth for four times (two double folds). If the corner of the paper broke off before or on two double folds, then the document was considered brittle. If it survived, then it was regarded as not being brittle. Similar to the method used in the pH determination, should an item within the sample have less than four pages, the last page was tested.

The analysis revealed that only 31.3 per cent of items within the 600 sample were found to be brittle, while the majority (68.7 per cent) survived the two double fold tests. The 31.3 per cent result compares favourably with the findings of the Yale Survey (37.1 per cent), and findings in the United States, where a survey of library collections found out that 30 per cent of volumes were brittle beyond redemption, (Bellagio Report, 1996).

It has been indicated that there is some relationship between high temperatures and high levels of acidity on one hand and the brittleness of paper documents on the other. While it is easier to appreciate the correlation between temperature and brittleness, most collection surveys have failed to confirm a one-to-one relationship with acidity. This study has found that while 63 per cent of items in a sample of 600 were acidic, only 31.3 per cent were found to be brittle. This is not surprising since the findings of a number of surveys corroborate the results.

The Yale survey found that 37.1 per cent of books sampled had brittle paper while 82.6 per cent were

of cross tabulations or intersections of the variables revealed interesting results. (See Table 4). It was found that 92 per cent of items identified to be brittle were acidic, while only 49.8 per cent of non-brittle items were acidic. Similar results were obtained in the Yale survey where it was found that more than 99 per cent of brittle books were acidic, whereas only 80 per cent of non-brittle books were acidic. These results are not surprising, given the geographical location of Ghana (in the tropics) and the resultant harsh storage environmental conditions.

#### Corrosive Inks and Fading of Documents

Ink is one of the key ingredients of paper documents. Earlier inks made from carbon were more permanent than contemporary inks made of iron gall and dyes. These are very volatile. Some of them are water-soluble and feather under the pressure of high humidity, some are light-sensitive, whilst others can be corrosive, burning images out of paper documents.

The collection survey sought to find whether there was any degradation of the text of the collection which could hamper legibility. It was found that 38

Table 4: Brittleness and Acidity

			Is the paper of the item acidic? (pH reading of below 5)		Total
			Yes	No	
Is the item (paper) very brittle? (does the corner of a page break off after two double folds?)	Yes	Count	173	15	188
		Row %	92.0%	8.0%	100.0%
		Column %	45.8%	6.8%	29.7%
	No	Count	205	207	412
		Row %	49.8%	50.2%	100.0%
		Column %	54.2%	93.2%	70.3%
Total		Count	378	222	600
		Row %	63.0%	37.0%	100.0%
		Column %	100.0%	100.0%	100.0%

acidic. The University of Ibadan survey also found 67 per cent of items surveyed to be acidic and yet less than 2 per cent were found to be brittle. The findings are further confirmed by the library collection survey in the US that came up with 80 per cent acidic items with only 30 per cent being brittle in the sample surveyed. (Bellagio Report, 1996). Further analysis

per cent of the sample had corrosive inks burning or eating the text or image out of the documents. It was further found that 77.3 per cent of items had fading texts. This finding is in contrast to the result obtained in the University of Ibadan survey where only 30 per cent of books were found to show signs of fading. The disparity in the findings may be

explained by the age of documents and the level of exposure to unfiltered light.

A majority of the documents with corroding text belonged to the court record books collection. These were mainly hand-written, bound proceedings and judgement books, dating back to the mid 19th Century. The implication of this is that the legibility of the collection of the National Archives of Ghana, the national heritage is gradually on the decline, and thus may result in the eventual loss of content.

### Discolouration and Staining

Paper documents, over time, get discoloured as a result of the interplay of several factors. The most prominent cause is the reaction of radiant energy with lignin if present in the paper. This darkens the colour of the paper, turning it brownish or yellowish. Discolouration results in the reduction of legibility and makes reproduction fairly difficult.

Analysis of data revealed that an overwhelming proportion (94.3 per cent) of the sample had turned brownish. This is possibly a pointer to the poor quality of paper used to create these documents and their exposure to unfiltered light. This situation is critical in the light of the proportion of items with fading text. In addition to the discolouration, the analysis revealed that 48 per cent of the items sampled had rust stains resulting from the metallic ends of treasury tags, pins and clips.

### Biological Damages

Biological agents are a major cause of deterioration of documentary materials particularly in the tropics. Such agents as fungus, insects and rodents thrive in conditions where there is dust, inadequate ventilation, poor lighting, high temperature and relative humidity. They cause considerable damage through weakening of paper, staining, tearing and chewing up of documents. Some of these damages are irreversible. The collection survey sought to find out the state of biological degradation of documents in the National Archives. Field assistants were specifically asked to observe and record signs of stain, fungi presence and mutilation by insects and rodents. The results revealed that only 18.5 per cent of items within the sample exhibited symptoms of mould. More important was that 85.7 per cent of the items had brownish patches, indicative of foxing resulting from previous mould attacks.

The writer is aware that repository number one at the headquarters of the Archives is periodically plagued with mould infestation and the corresponding treatments had never been thorough. This had always resulted in cases of relapse for some time now. Successive mould attacks on paper documents as is the case of the National Archives of Ghana, apart from the health risk to both custodians and searchers, weaken the documents and could ultimately result in content loss. There was very little evidence of mutilation by insects and rodents. This could be attributed to the cleanliness of the premises and the strict regulations regarding non-eating in the repositories.

### Conclusion and Recommendations

One of the cardinal discoveries of this study is the fact that the documentary heritage of Ghana in the National Archives is under the threat of deterioration. The quantum and the level of deterioration are frightening, with 51.1 per cent of documents surveyed in urgent need of treatment while the rest are at various levels of deterioration. A majority of the documents are acidic and brittle, with some of them fading, while some others were turning brownish. These are potent ingredients for decay. To salvage this situation, the following are recommended.

- *Mass Deacidification of NAG* – Immediate steps need to be taken by the National Archives of Ghana (NAG) to deacidify its paper document collection in order to halt further progression of acid decay. There are different methods of deacidification. Given the quantum of the problem, it is recommended that the NAG adopts a mass deacidification method using ammonia gas to neutralise the acid in the documents. This method may not be the best, since it does not prevent re-acidification as compared to the aqueous method. Nevertheless, the precarious nature of the situation calls for the mass method as against the single-sheet wet method that will take the NAG several years to accomplish.
- *Strengthening of Documents* – It is obvious that after deacidification, the NAG must proceed to strengthen the documents. The writer concedes that, given the volume of documents involved, it would be an uphill task. However, some selective



lamination of extremely brittle documents with intrinsic value could be undertaken, while preservation microfilming and digitising technologies could be used to reformat the mass of fragile documents. These technologies are expensive, but in the current situation where Ghana stands a very high risk of losing its documentary heritage, there is no other alternative of safeguarding the intellectual content of the documents.

*Mass Fumigation Programme of Documents* – It is recommended that in view of the fact that the survey identified symptoms of fungi infestation, the NAG should put together a sustained programme of mass fumigation of documents to forestall further infestation. In the long run, the NAG should be able to ensure a sustained conducive storage environment for its collection.

*Improved Environment* – PRAAD with the support of the Government of Ghana should, as a matter of priority, construct purpose-built archival repositories for all the regions with facilities and equipment, to control and monitor environmental elements such as temperature, relative humidity, atmospheric pollution and light intensity among others.

*Staff Recruitment Strategies* – It is further recommended that the NAG re-examines its staff recruitment strategies, taking cognisance of the importance of preservation and conservation in the equation. Preservation administrators and conservators with attractive motivational packages need to be employed and retained.

*The Need for Preservation Policy* – NAG should put together a comprehensive preservation policy to ensure a more systematic and progressive approach to the preservation problem.

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# National Information Technology Policy in Nigeria: Prospects, Challenges and a Framework for Implementation

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## Abstract

*The paper highlights the crucial role of information technology (IT) in development globally and the need for countervailing policies to regulate IT. The Nigerian Government's initiatives in the IT sector especially the formulation of an IT policy in 2001 was presented. An overview and review of Nigeria's National Information Technology Policy and the efforts of the National Information Technology Development Agency (NITDA), the policy's implementation organ, towards implementation, followed. The prospects and challenges of implementing the IT policy were later discussed. By way of recommendation, the paper suggested a framework for the successful implementation of the IT policy. It concludes by submitting that it is the responsibility of NITDA with the full backing of the Nigerian government, to transform the digital divide to digital opportunity for Nigerians and that the future and destiny of IT in Nigeria is bright provided the Government and NITDA work together and apply the recommendations suggested.*

## Introduction

The crucial role of information and communication technologies (ICTs) in stimulating development is of

a double-edged type. On the one hand, it allows countries to leapfrog stages of economic growth by being able to modernise their production systems and increase their competitiveness faster than in the past. The most striking example is that of the Asian Pacific economies, and particularly the cases of Hong Kong, Taiwan, Singapore, Malaysia and South Korea. This is so in spite of the current financial crisis which is unrelated to competitive performance and the attractiveness of booming Asian economies to global capital flows. On the other hand, for those economies that are unable to adapt to the new technological system, their retardation becomes cumulative.

Sub-Saharan Africa and South Asia are at the bottom of the list of world regions in terms of digital prosperity and opportunity. It is said that these less information and communications technologies (ICTs)-developed countries are not able to participate effectively in the accelerated process of globalisation and the acceleration of growth and transformation of work and factors of production now occurring as a result of ICTs. But it is also true that the developed countries cannot effectively and efficiently globalise their capitalist expansion into new and emerging markets without a minimum existence of the requisite ICT infrastructure available in developing countries (UNCTAD 1998). On a global scale, there is a need for appropriate policies that would demonstrate a conscious effort to make the entire world enjoy the benefits of globalisation.

Nigeria returned to democratic governance in 1999. In 2001 the Government formulated the National Policy for Information Technology (IT) to respond to the emerging global trend. Since the formulation of the policy, stakeholders have noted that not much is being done by the National Information Technology Development Agency (NITDA), the governmental organ entrusted with the

implementation of the policy, to make Nigeria realise its dream of being part of the process of globalisation. In other words, the formulation of the policy had not yielded the necessary fruits and dividends owing to the strategies that NITDA had adopted for its implementation. This article examines the Nigerian national information technology policy situation and recommends a framework for the policy's successful implementation.

### An Overview of Nigeria's National Information Technology Policy (NITP)

The Nigerian Federal Government approved a national information technology (IT) policy in March 2001 and its implementation started in April 2001 with the establishment of the National Information Technology Development Agency (NITDA), charged with the implementation responsibility. The policy recognised the private sector as the driving engine of the IT sector. NITDA is to enter into strategic alliance, collaboration and joint venture with the private sector for the actualisation of the IT vision, which is to make Nigeria an IT capable country, using IT as an engine for sustainable development and global competitiveness. It is also to be used for education, job and wealth creation, poverty eradication and global competitiveness.

Based on the content analysis carried out on the policy, it was found to be very comprehensive in scope. The policy gave recognition to fifteen sectoral areas, namely: human resource development, infrastructure, governance, research and development, health, agriculture, trade and commerce, fiscal measures, government and private sector partnerships, arts, culture and tourism, national security and law enforcement, legislation, global considerations, and IT popularisation and awareness.

The policy could be described as relevant to the IT needs of the country. The only gap is how realisable most of the objectives and strategies set out in the policy are. The vision statement of the policy is "to make Nigeria an IT capable country in Africa and a key player in the information society by the year 2006, using IT as the engine for sustainable development and global competitiveness." The low level of general literacy coupled with computer literacy makes the vision statement much of an empty rhetoric. Nigeria's population is predominantly rural and a large number of people do not have access to

education facilities, and sometimes, where these are available, they are of very poor quality. Although illiteracy rates of the adult population have reduced from the figures of the 1980s and early 1990s (Earth Trends, 2003), the number of people who cannot read or write in Nigeria is still relatively high. Added to this is the low level of computer literacy. Even among the literate Nigerian population, a majority are not computer literate.

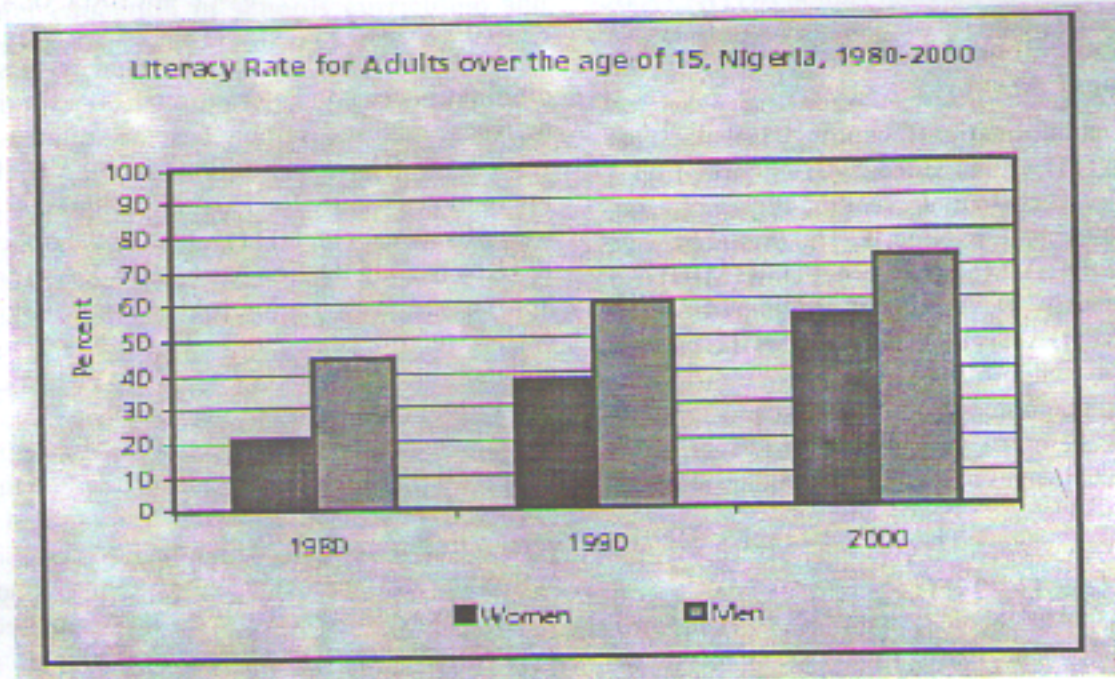
The consequences of a large number of people in Nigeria not being able to read and write, as shown in table 1 and figure 1, on the one hand, and on the other, not being able to use computers, are many. Among them is the negative effect on development. This fact is supported by the Organisation of African Unity's (OAU) statement delivered on 8 September 1995 - International Literacy Day, which indicated that "Illiteracy is the number one enemy to Africa's development, contributing greatly to the poverty and marginalisation of its people" (*The Horn of Africa Bulletin* 1995). Another effect is the inability of the people to use various information communication technologies and access digital information

**Table 1: Adult Literacy Rate – Nigeria, Africa and World**

	Nigeria	Sub-Saharan Africa	World
Adult Literacy Rate, 2002			
Female	59%	55%	75%
Male	73%	71%	86%
Youth Literacy Rate (ages 15-24), Both Sexes			
1980	55%	55%	80%
2002	88%	79%	87%

Source: *Earth Trends*, 2003

Also, the mission statement of Nigeria's IT policy identified five key areas for the use of IT: education, creation of wealth, poverty eradication, job creation, and global competitiveness. The question is, how can IT be used to create jobs and eradicate poverty when a large number of the population is still illiterate and not knowledgeable about IT? Moreover, in the sectoral applications, Strategy (vii) under the National IT backbone reads "ensuring that the entire country



Source: *Earth Trends*, 2003

is linked through information network systems by the year 2006." When one considers the present level of information and communication infrastructure in the country today, including low level of computing culture, underdeveloped communication equipment, as well as the low level of literacy and computer literacy, it is difficult to see the relevance of the strategy to the situation on the ground. In Nigeria, for a large number of people who have access to computers, this is largely on computers located at workplaces. The concept of computers for home use is not wide spread, partly due to the fact that prices for computers in Africa are unaffordable. The Nigerian Government still considers computers as luxury goods and thus imposes high import duties and sales tax on computers making them more expensive and unaffordable to the majority.

Perhaps one of the most unrealistic objectives in the content of the policy is Strategy (iv) under governance as a sector. The strategy requires all civil servants to become functionally computer-literate within 24 months of the policy coming into force. This is equally spelt out in Strategy (xiv) under policy implementation: "making IT skills mandatory for all government employees and achieving computer literacy for all civil servants by year 2002," and under Strategy (iv) under the health sector as follows: making IT skills acquisition mandatory for all

healthcare professionals thus achieving computer literacy within 24 months." Today, after about five years since the policy came into operation, not much has been done in respect of training civil servants, although NITDA has, through its Human Capacity Building project, forged a thriving partnership with public and private organisations. A more detailed discussion of the Human Capacity Project of NITDA is discussed in the next section).

The policy also places emphasis on the development of National Information Infrastructure Backbone (NIIB) and Human Resources Development. In addition, information technology parks are to be developed in Abuja and in each of the six geo-political zones. The policy recognises the private sector as the driving engine of the IT industry and the Government is meant to enter into alliances, collaboration and joint ventures in order to achieve the goals and objectives of the IT policy.

Finally, all through the IT policy document, gender concerns are not addressed in a way that shows an understanding of power imbalances and gender relations. It makes no attempt to show an understanding or appreciation of gender issues, as evidenced by the use of gender-neutral terms in the document. It was assumed that by using these terms, it included everyone within broader categories of people, without recognising the different contexts, needs or contributions by different sexes.

### Activities of National Information Technology Development Agency

The National Information Technology Development Agency (NITDA) has since 2001 embarked on a number of projects to make real the dream of using IT for development in Nigeria. The Public Service Network (PSNet), Mobile Internet Unit (MIU) and Human Capacity Development are some of these projects. NITDA has been able to start the process of integrating IT into the public service through a massive enlightenment campaign that was targeted at the top echelon of the service. However, there have been challenges of inadequate funding and lack of political will.

#### (a) *Some Projects of NITDA*

NITDA has embarked on a number of projects aimed at stimulating the growth of ICT in the country. The Public Service Network (PSNet) is one of such projects. The project is to address the major problem of ICT infrastructure and facilitates ICT services. It consists of a Very Small Aperture Terminal (VSAT) sited in each state capital. This VSAT provides Internet access for that central location and all other locations connected to this centre using Broadband Wireless Access (BWA) technology. The various sites around the country are then connected to each other through a Virtual Private Network (VPN). Nine states have already been completed in the first phase of the project (Ajayi, 2002).

Human capacity building has been another focus of NITDA. Towards realising this goal, NITDA has co-operated with public and private organisations in what has become a public-private partnership (PPP). The Enterprise Technology Centre (ETC) is one such PPP that is worthy of note. The ETC is a partnership between NITDA and two private companies to provide IT training for civil servants. In Nigeria, it is rather difficult for a private company to embark on the training of very top officials of the civil service. The ETC, which is located within the Federal Secretariat Abuja, has provided training for these top officials. The Head of the Civil Service of the Federation led all the permanent secretaries for a two-week training. This enlightenment has greatly aided NITDA in its bid to integrate IT into the public service. With the training of the top officials, NITDA has provided an enabling environment for the private sector to train civil servants from top to the lower cadre.

NITDA has also collaborated with several multinationals and international organisations to deliver specialised training in some train-the-trainer workshops. These institutions include UNESCO, International Centre for Theoretical Physics (ICTP), Cisco Systems, etc. NITDA also collaborated with ICTP by hosting the first African Workshop on Open Source and Web Technologies for Development earlier in the year 2003. There has also been collaboration with UNESCO on the Virtual Library and Virtual Laboratory projects for Nigeria.

Another project of NITDA is the Mobile Internet Unit (MIU), which is a locally made bus that has been converted into a mobile training and cyber centre. Its interior has 10 high-tech workstations all networked and connected to the Internet to facilitate access to several IT resources. It is equipped with printers, a photocopier and a number of multi-media facilities. Internet access is provided via a Very Small Aperture Terminal (VSAT) equipment with a 1.2m dish mounted on the roof of the bus. The unit is also equipped with a small generator to ensure regular power supply. The MIU provides everything users would need in a high-tech cyber centre and it has the added advantage of being mobile. It takes the Internet to places that have no other means of access, e.g. the rural areas. It has also been deployed to various primary and secondary schools. The plan is to get all states and possibly local government areas (LGAs) to have their own MIUs so as to facilitate the penetration of the Internet and ICT around the country (Ajayi, 2002).

#### (b) *NITDA's Scorecard*

In the past three years, NITDA has committed a lot towards ensuring that the public service, particularly those in the top echelon, embrace IT. The rewards of this drive have been most encouraging and rewarding, and NITDA has been able to get top-level civil servants to champion the course of IT in the country. IT is now a major part of the ongoing civil service reform currently on and the Federal Government has given instructions that NITDA should serve as a clearing house for all IT projects in the public sector. This will allow for a more coordinated approach in the development of ICTs in the public service.

Three years after the IT policy was adopted, the government has made efforts towards improving the telecommunication systems and introducing

computer education in schools curriculum and enacting relevant laws, (although the freedom of information and cyber crime laws are yet to be passed by the national assembly). However, there is still a need for a more significant shift in government's attitude towards IT. With regard to the concrete steps which NITDA has taken towards implementing Nigeria's IT policy, the real questions are as follows: what are the indices of a practical and sustainable framework for the implementation of the Nigerian IT policy? Where are the research works in line with the underlying philosophy with which government and NITDA have tried to pursue Nigeria's national IT aspirations? There seems to be a deliberate attempt to address national IT superficially while the real issues are buried under the overblown shadow of a government committed to making IT the cornerstone of a private-sector led economy. Specifically, where are the IT parks and what has become of the ambitious plan to produce the 500,000 IT skilled personnel for the national economy? Also, what has become of the plan of making NITDA a proactive and dependable guardian of a national IT blueprint? All these questions beg for answers.

Looking at the Mobile Internet Unit (MIU) project of NITDA, one cannot but describe it as another failed project. Nigerian rural population is between 75- 82% and purely agrarian. So how many vans will NITDA buy to cover the entire Nigerian rural populations? Also, most roads in Nigeria's rural areas are not tarred and the general literacy level, coupled with computer literacy, is low. More importantly, the MIU project is inflexible with respect to time as users are expected to be ready to use the facility whenever it comes to their areas.

In sum, IT development in Nigeria today is increasingly becoming synonymous with the government officials and policy makers delivering long-winding speeches on the achievements of the current administration in IT. According to Oruame (2004) the advent of the GSM players and their radical impact on the Nigerian large market is taken to mean the development of the Nigerian IT sector. But IT development is really more than that. IT development hinges on a fundamental question: How much of what goes around us as IT is Nigerian in content? Government has severally expressed its willingness to support the indigenous software industry but there is little to see in that direction, in terms of concrete and practical support (Oruame,

2004). NITDA neither does not have any sustainable relationship with indigenous software experts nor a file on local software entrepreneurs. Also, it does not have a clear-cut blueprint for software development.

### **Challenges for IT Policy Implementation in Nigeria**

As Africa's most populous country, Nigeria possesses its most valuable resource, human capital. There are millions of people that could be potential candidates for information technology training. Unlike natural resources, the high-technology industry is man-made and can be located in those countries that had the foresight to produce the best scientists and engineers. India is perhaps the best example of this kind of success. Once this training can be developed and implemented, the result will be increased software development, hardware development and more companies doing business in Nigeria.

Nigeria has accomplished its first task in becoming an equal player in the global economy. It has been able to link its telecommunications infrastructure to the United States and Europe. This link will allow for freer flow of technology and skills. Nigerians will be better able to market their country and its resources in the hope of drawing in increased international investment. Investment from the private sector is the key to the continued development of the telecommunications infrastructure and the Internet.

The Nigerian government is a signatory to several Internet Corporation for Assigned Names and Numbers (ICANN) treaties and are at least aware of responsibilities regarding IP address space allocation, protocol parameter assignment, domain name system management, and root server system management functions. The key is for the Government to develop its own specific regulations and enforce those regulations. The Government is offering certain incentives to invite further investments by private sector firms. First, that taxes and import duties will not be excessive. Fiscal incentives will be available to those companies that encourage local manufacturing of telecommunications equipment and related software and easier methods for importing telecommunications equipment. The Nigerian government would like to eliminate a lot of the "red tape" and bureaucracy

involved in licensing and regulation procedures which would be simplified to encourage rapid inflow of private investment.

The challenge of using IT as a tool for development in Nigeria has been a great one and the fact that the paradigm shift is taking place is commendable. The greatest challenge has been that of providing adequate funding for the implementation of Nigerian IT policy.

The 2004 literacy statistics indicate that only 65% of Nigerians over the age of 15 can read and write. These figures are a travesty to a country with such vast human resources. There were no college level education programmes focused on information technology until a 1996 Organisation of African Unity (OAU) programme that was funded by the World Bank. Generally, the country is far behind other countries in West Africa like Ghana in IT policy.

Perhaps related to this, and even a greater problem, is that the brain drain and generally low levels of education and literacy amongst the population has created a great scarcity of skills and expertise (at all levels, from policy making down to end-user). Rural areas in particular suffer with even more limited human resources. Along with the very low pay salary scales in the Nigerian civil service, is the chronic problem for governments and NGOs who are continually losing their brightest and most experienced manpower to the private sector. This is simply exacerbating the situation in Nigeria because experienced technicians, even from the local private sector, are able to find much higher paying jobs in Europe and North America. Also, women represent more than half of Nigeria's population, yet they are denied educational and career opportunities which are necessary for IT exploitation.

Internet access is currently very expensive and except for a handful of links, the connections are extremely slow. According to Jensen (2002) "ISP's pay too much for their international connectivity." He also blames high licence fees, conditions imposed on those licences, limitations imposed on wireless and VSAT access, excessive import duties on equipment, and limited skill and knowledge of the available options for providing access.

Further, irregular or non-existent electricity supplies are a common feature and a major barrier to the use of ICTs, especially outside the major towns. Nigeria has extremely limited power distribution networks which do not penetrate

significantly into rural areas. Power shedding is a common occurrence even in some major cities.

Finally, the general business climate for increased investment in Nigeria, acutely needed for the ICT sector, has suffered from the well-known problems of small markets divided by arbitrary borders, non-transparent and time-consuming procedures, limited opportunities, currency instability, exchange controls and inflation. All these are the major challenges of IT policy implementation in Nigeria.

### **A Framework for Implementing Nigeria's IT Policy**

In this section, we recommend a framework for the implementation of Nigeria's IT policy as the way forward towards implementing the policy. In doing this, the following sectoral applications are suggested with recommendations on what needs to be done either by the Government or NITDA.

#### **Sectoral Implementation**

##### *(i) Human Resource Development*

There is a need for an appropriate IT education philosophy for sustained human expertise at all the levels of the Nigerian educational system - primary, secondary and tertiary levels. According to the African Information Society Initiative (AISII) framework drawn up by the United Nations Economic Commission for Africa (UNECA), the focus on capacity building is important since the adoption of appropriate information and communication policies would be futile if a country's institutions do not have the capacity and the incentives to ensure effective policy implementation.

The Government should carry out mass education of the populace both in general literacy, and in computing. This could be done right from the local government level under the supervision of the monitoring committee. Related to this is that the Government should accelerate IT awareness among administrators and decision-makers in government. Their literacy in IT will enable them to perceive the relevance of IT to nation building. Finally, institutions of higher learning and research should be made to revise their curricula to incorporate the fundamentals of IT including computer-aided design (CAD) and computer-aided manufacturing (CAM) systems geared to the local environment.

### *(ii) Infrastructure Development*

There should be the establishment of National Information Infrastructure Backbone (NIIB) to be involved in the planning, designing and configuring of a scalable National Information Infrastructure Backbone (NIIB). It will achieve a minimum capacity of 2.5 Gbps using a combination of optical fibres, satellite communications and wireless technology. In the creation of the (NIIB), nodes should be set up in each state and local government for easy and effective implementation.

Existing facilities such as power grids and railways infrastructure should be used to enhance the creation of the (NIIB), encouraging the private sector, through relevant incentives, to build interfacing NII of fibre transmission systems. The NIIB should be designed strictly to provide transmission capabilities on lease basis to service providers essentially for data transmission and not for telephony.

Plans should be put in place to ensure that the entire country is linked to information network systems. This should be implemented in such a way that the whole venture is decentralised and localised for easy monitoring and effectiveness. Also, there should be short-, medium- and long-term aspects of the plan.

### *(iii) IT Awareness and Popularisation*

A programme should be put in place aimed at popularising information technology in the different sectors of the Nigerian economy. The programme should be aimed at expanding the skill and career development opportunities of information technology professionals in government. It could also improve the management and use of information technology within and among agencies. This could be achieved by developing information technology procedures and standards, and by identifying and sharing experiences, ideas and practices.

Also, the Government should encourage widespread IT use in all major national agencies, especially in mission critical areas-like finance, national planning, science and technology, education, health care delivery, defence, etc.

### *(iv) Databanks*

Databanks designed to serve critical economic sectors are of the utmost importance in harnessing the power of IT for national development. Databanks

should be set up to serve as repositories of accurate and reliable socio-economic data about the activities of government. The development of a government-wide or country-wide databank presupposes the availability of resources to make this work. Thus, the Government should make the following resources available: an enabling policy and legislative framework; integration of the data bank with related systems; availability of manpower and tools to manage the databases and information network; improved awareness of and provision of user-friendly access to the databank, etc. The National Data Bank should be strengthened and be put in charge of this sector.

### *(v) Research and Development*

Government's concern in this sector should be geared towards promoting self-reliance and export of IT products and services, and encouraging joint R & D efforts between the private sector and the universities especially in the area of software development. Also, the Government should identify key technological areas and there should be the provision of fiscal support and incentives to encourage local technology development as well as encourage technology transfer.

There should be proper funding of R & D in identified universities and stimulating growth of local IT industries through government patronage of local IT industries, products and services. The existing R & D institutions should be strengthened for them to achieve their set objectives. Government should encourage R&D activities as they relate to IT hardware and software products. Along this line, the Government should provide a conducive environment through policy instruments to mobilise the human resources of the country to go into software engineering with a long-term objective of carving out a niche for the country within the Sub-Sahara African region.

In this connection, research should also be funded to promote Nigerian languages. Democratising access to ICTs requires more than technical literacy. It demands the ability of citizens to not only use content but also generate content on their own. At the moment, much of the content on the Internet is in European languages, which are not understood by the majority of Nigerians, suggesting that the content of the Internet is largely incomprehensible to them. Government should therefore promote R & D that



will lead to the presence of Nigerian languages on the Internet so as to make it truly a meaningful development and information tool for all Nigerians.

*(vi) Telecommunications*

The issues that are of strategic importance in this sector include the following among others: liberalisation of access and pricing of telecommunication services, regulation of providers of telecommunications services and significant improvement in telecommunications infrastructure. In line with these issues, Government should encourage the setting up of communication facilities to facilitate the flow of information. This could be done by deregulating the telecommunication sector further and allowing for more competition by the different players in the sector. The fact that only four operators were allowed to operate initially in the Global System for Mobile Communication services may be adequate for now, there is a need for the Nigerian Communication Commission (NCC) to ensure adequate interconnectivity, regulation of service quality and pricing, etc. Also more operators may be invited to provide GSM services in order to deregulate the sector further.

*(vii) Content Creation and Content Industry*

The convergence of print media, databases and telecommunications has led to the advent of the electronic content industry. The content industry has come to mean various commercial and non-commercial activities relating to the bibliographic, textual and statistical databases, as well as the information, education and entertainment materials in audio, video and multimedia forms. The Nigerian government and its agencies are the largest producers of socio-economic and statistical information. These data resources should be rationalised by using standardised formats and retrieval mechanisms thereby making them easily available online to the planners, scholars and the public. All non-classified or declassified information in the possession of the government agencies should be made available to the content industry on non-exclusive basis. In line with this, the government should fund and sponsor research on various aspects of content creation and development, including related market studies, as well as short and long-term vision and growth strategies for the sector. Detailed research studies could be undertaken to identify specific areas for content

creation and its marketing at regional, national and international levels.

The national, regional and other public libraries should be required to develop databases of their holdings which should be hosted at designated websites for free access to users. Also, universities and polytechnics should be supported to host dissertations/theses submitted for research degrees on designated websites.

*(viii) IT Industry*

Efforts should be geared towards the development of the Nigerian software industry. The productivity of the Nigerian software industry should be continuously upgraded by de-licensing and deregulating the import of software productivity tools. In order to keep pace with the fast changing trends in software technology, companies and software development organisations should be progressively encouraged to spend at least one-fourth of their total software budget for the purchase of software productivity and quality tools and nascent software related to the latest software technology trends. The government should stimulate growth of local IT industries through government patronage of local IT industries, products and services.

*(ix) Regional/International Sector*

In this sector, efforts should be geared toward exploiting the opportunities offered by existing international and regional IT programmes. The nature of information technology is such that regional and international co-operation at various levels is essential not only for the setting up of regional/international standards but also to continuously taking advantage of the experiences of other nations in the planning, implementation and operation of IT systems. Towards this end, bilateral arrangements should be explored for this purpose.

The Government should fund the National Information Technology Development Agency (NITDA) to meet obligations of the international community and participating effectively in all international activities whose objectives would promote IT development in the country. Also, the Government should support the effort of the Economic Community of West African States (ECOWAS) in harmonising the training of IT personnel.

### Legal Framework

It is recommended that NITDA should ensure that all relevant bills forwarded by the government to the National Assembly be passed into law. This will give a legal backing to the national IT policy. Laws should be enacted to facilitate electronic communication, electronic commerce and mobile commerce; to promote intellectual property and copyright; to promote acceptable standards, authenticity and integrity in IT use nationwide; and to establish cyber-laws to combat computer crime, etc.

In this regard, Nigeria could share from the experiences of Malaysia and Singapore. Legal initiatives to foster the implementation of the IT plan in Malaysia are in consonance with the legal framework in Singapore: the Malaysian Evidence and Customs acts have been amended so that company records can be stored in electronic form and have equal legal status as written documents. Other bills introduced into the Malaysian Parliament in 1997 to deal with the challenges of electronic commerce include the Computer Crime Bill of 1997; the Digital Signatures Bill of 1997; the Telemedicine Bill of 1997; and the Copyright Amendment Bill. The last bill introduces technology-neutrality into the copyright law. The amendment also incorporates what is referred to as the "communications to the public" right as defined within the confines of the WIPO Copyright Treaty. This expands the exclusive rights of a copyright owner and improves the ability of owners to protect materials published or sent electronically over the Internet (Osineye and Woherem, 2000).

### Policy Review

Also, NITDA should, among other functions, see to the periodic review of the IT policy. Information policy-making is a continuous process that can never be considered as finished (Horton, 1997). The national IT policy in force should be reviewed continuously to verify that it remains pertinent to the ever-changing political, economic and social contexts in which the policy operates.

It should be noted that it is impossible to proffer iron-cast guidelines that will make the task of a national IT policy hold for all times. The key issues which have been identified must all be carefully reviewed/revised periodically to avoid operationalising an IT policy that is obsolete. Thus, from time-to-

time, NITDA should organise conferences and brainstorming sessions where IT policy stakeholders would fine-tune and review the national IT policy. Alternatively, NITDA could organise a national information technology forum with the participation of relevant organisations and individuals after two years, in the first instance, to assess the policy's performance and thereafter as the need arises. Also, NITDA should issue annual reports on information technology (IT) development in Nigeria. Advice on implementation and revision may also be sought from other countries through bilateral arrangements.

### Conclusion

Information technology (IT) is a multidimensional technology and can, therefore, give every nation some role in the globalising world. The development and successful implementation of IT policy in Nigeria holds great hope for sustainable economic development of the country. It is the responsibility of the Nigeria Government and NITDA to transform the digital divide to digital opportunity for Nigerians. It can be concluded that the future of IT in Nigeria cannot but be bright provided the Government and NITDA and other stakeholders work together and apply some of the recommendations given in the preceding section.

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# A Survey of Librarians' Attitudes to Training Programmes on ICT Application to Cataloguing and Classification Workshops in Nigeria

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## Abstract

*A survey of 84 participants at the Cataloguing, Classification and Indexing Group of the Nigeria Library Association workshop in 2004 was carried out with a view to determining the impact of the annual workshop on the application of information and communications technologies (ICT) to cataloguing and classification in Nigerian libraries. The work covered 43 libraries – universities, polytechnics, colleges of education, research institutes and ministries/parastatals/agencies which cut across the 6 geopolitical zones of Nigeria (North-East, North-West, North-Central, South-West, South-East and South-South):- The data analysed showed that the workshops organised in recent years had spurred the action of the participants at those workshops to further pursue ICT (78%). The findings also revealed that the workshops have had positive impact on the participants with respect to the application of ICT to cataloguing and classification. Recommendations for libraries that intend to computerise their catalogues were proffered.*

## Introduction

Cataloguing practice is as old as librarianship. As commerce is the lifeblood of any given nation, cataloguing is the foundation on which entire library system rests and depends upon. Adeyemi (2001) sees cataloguing and classification as intellectual pillar on which the practice of the library profession rests, as well as constituting the scientific basis for librarians' claim to professionalism. Without cataloguing and classification, the goal of making materials and information available would have been difficult to accomplish. Taylor et al. (1992) define catalogue as an organised set of bibliographic records that represent the holdings of a particular collection. Increasingly, however, a catalogue represents the holdings of more than one library, as libraries form consortiums and link their catalogues for the purpose of inter-library sharing. The importance of information and communications technologies (ICTs) cannot be over emphasised in the organisation of information so there is a need for libraries to computerise their services, especially information retrieval tools such as catalogues.

Librarians in Nigeria are in the race of shifting from traditional methods of information representation to the machines types while others are still maintaining the old practice. Adedeji (2001) is of the view that technological application in Nigerian libraries since 1960 to date was and is still largely mechanical. Several scholars such as Chapman (1994), Ola (2002) Egberongbe (1999, 2003), Sonaike (2001), Adedeji (2001), Tihamiyu, et.al. (2002) and Adeyemi (2001) have made clarion calls to librarians to eliminate apathy and develop interest in the use of information technologies in their libraries. They highlighted the gains in the use of information technology to include the following:

- High storage information capacity
- Flexibility in data manipulation
- Very high operational speed
- Economies of scale, that is, cost-effectiveness in service delivery
- Time-saving device
- Easy retrieval and errors reduced
- Eradicate tedious task of filing
- Catalogue records are now made with more accuracy, quickness in compilation and reproduction of records.
- Shelf list limitations is being taken over by OPAC
- Records can be networked.

### Statement of the Problem

The adoption of information technologies in Nigerian libraries is still at infant level. The practice of manual cataloguing, classification, and indexing and other retrieval systems are still maintained. This old method of information representation is time-consuming and subject to perennial backlogs and errors in card production and filing. Their effectiveness as retrieval tools is also problematic. In the light of this, there is a need for a better alternative to curb the shortcomings of the manual practices in Nigerian libraries.

This study, therefore, explores the workshops/conferences/seminars organised by the Cataloguing, Classification and Indexing Section of Nigerian Library Association in recent years, in the area of information and communication technologies and the impact the activities have had on the participants of the workshops (the cataloguers).

### Objectives of the Study

The study was carried out to:

- know whether these workshops on ICT helped in one way or the other in improving the understanding of Nigerian cataloguers and other information specialists of the field of ICT.
- find out whether their libraries have commenced computerisation drives.
- investigate the degree of the mastery of the software installed for library operations in their libraries.
- identify factors militating against the effective computerisation of their libraries.

### An Overview of Cataloguing, Classification and Indexing Section of the Nigerian Library Association

Cataloguing, Classification and Indexing section (CCI) is a technically oriented group of the Nigerian Library Association which was inaugurated in 1972 at the University of Ibadan. It comprises of cataloguers and other librarians that are involved in the art of organisation of knowledge in libraries. CCI was established due to the technical nature of librarianship, and the need for an arm of the Nigerian Library Association to organise workshops and conferences to train and retrain cataloguers, information specialists and teachers/librarians nationwide with a view to advancing their techniques of organisation of knowledge (Lasisi, 1999, 2001). This body (CCI) has over the years concentrated its efforts in the area of information technologies, treating various themes and sub-themes ranging from computer appreciation, computer maintenance, software and hardware choice parameters for cataloguing in Nigerian libraries, to retrospective conversion of cataloguing records (RCC). Practical training on some software (CDS/ISIS, TINLIB, XLib, Notepad, Catalog/Epsed) are also covered. Table 1 below shows the workshops and titles and sub-themes held between 1998 and 2004.

Some highlights of the issues discussed at these workshops are summarised and reviewed below.

### Retrospective Conversion of Catalogues

The presenters in these workshops agreed that one of the major hurdles to be faced in the library was retrospective conversion of catalogues (RCC). The RCC implies transfer of the old catalogue records of the library to the machine readable format (MARC). This is a great challenge for Nigerian libraries. Ola (2001) and Adio (2003) declare that RCC requires a thorough planning and patience, and that while planning for this exercise, the following should be borne in mind:

- Availability of competent staff to handle the project
- Availability of funds
- Weighing different options – the use of consultancy versus internal arrangement
- Management should be responsible for monitoring the progress made
- The need to consider equipment and supplies.

**Table 1: Workshops and Titles and Sub-Themes**

Year	Place	Title	Sub-themes
October 1998	Ilorin (Kwara State)	Automation in the 21st Century: The Role of Cataloguers	<ul style="list-style-type: none"> <li>*Managing computers in catalogue records</li> <li>*Assessing application software for cataloguing</li> <li>*The continuing relevance of AACR 2 in automation</li> <li>*Retrospective conversion</li> </ul>
October 1999	Jos (Plateau State)	Coping with New Information Technologies in Libraries in the Next Millennium	<ul style="list-style-type: none"> <li>*Computerisation of library functions (planning implementation &amp; management)</li> <li>*Choosing appropriate software for cataloguing</li> <li>*Strategies for retrospective conversion of catalogue entries</li> <li>*The year 2000 Bug: implications</li> </ul>
May 2000	Ikeja (Lagos State)	Cataloguing and Classification Practical Workshop on UNESCO Micro CDS/ISIS	
October 2000	Enugu (Enugu State)	Information Explosion and Challenges of Packaging in the New Millennium	
October 2001	Akure (Ondo State)	Software Choice Parameters for Cataloguing in Nigerian Libraries	<ul style="list-style-type: none"> <li>*General choice parameters for library automation software</li> <li>*Hardware requirements and networking of library application software</li> <li>*Sustainability of library automation project</li> <li>*Education of librarians in an electronically-oriented society</li> </ul>
October 2002	Benin (Edo State)	Sustainability of Library Automation Projects: The Way Forward	<ul style="list-style-type: none"> <li>*Computerisation of library operations – necessary considerations</li> <li>*Staff training needs: pre/post computerisation</li> <li>*Hardware requirement/returning and peripherals</li> <li>*Choice of library application software and their sustainability</li> </ul>
October 2003	Ilorin (Kwara State)	Current Trends in Technical Services: the Role of ICT	<ul style="list-style-type: none"> <li>*The impact of software integration on acquisitions and cataloguing in an automated library</li> <li>*Handling of government publications</li> <li>*Creation and utilisation of web-based library catalogue</li> <li>*System configuration for libraries</li> </ul>
October 2004	Lokoja (Kogi State)	Strategies for Managing Technical Services in Libraries and information Centres	<ul style="list-style-type: none"> <li>*Library resources development and the role of ICT</li> <li>*subject cataloguing and computerisation: current trends</li> <li>*Basics of computers and computing</li> <li>*Home made classification for government documents</li> <li>*CDS/ISIS practical.</li> </ul>

#### Software Choice Parameters

There are a few number of library software that are available in the Nigerian market. Popular among them are the TINLIB, X-Lib, GLAS, Micro-CDS/ISIS, Q Series, Oracle, Cardbox Plus, Paradox, D

Base, Microsoft Access, Fox Base and Alice for Windows. Nkhoma (2003) listed those ones in Southern Africa to Include Erudite Information System, Stylis and In Magic. Therefore, before any choice is made, the librarian needs to perform an

evaluation based on some parameters suggested by Faniran (2001), Oketunji (2001), Omotosho (2001) and others. These are:

1. Supplies: Whether it is dedicated (i.e. dealing with library software only) or portfolio (dealing with several products).
2. Origin of the system: a library-designed software is likely to do better than a system that has to be customised.
3. User Interface (menu driven/ command by function key)
4. Integration: If the consideration is for modular system, then integration of the software is very important.
5. Parameterisation: That is, the options provided to configure the system in order to meet the operational requirement.

#### **Mastery of Library and other Software**

Cataloguers need to have knowledge in general computing and be proficient in the library software introduced into the library. They should be able to accomplish the following tasks, (Adeyemi, 2001).

- Turn on the computer and call up the cataloguing worksheet
- Complete the fields using all facilities
- Verify/revise the information as the case may be
- Store the record and proceed to input others
- Print where necessary according to pre-determined format resident on the computer
- Log off the system.

The major software includes:

- TINLIB (The Information Navigator Library Management) software is an application software, a product of Electronic Online Systems International Ltd, London.

#### **The Strengths**

- Has structured fields
- It is a third generation-software system available for single user, multi-user and networking environment
- It is highly flexible in design with only hardware limitations
- It runs on virtually all types and sizes of IBMPC compatible hardware
- Tinlib comes in versions. Thus, it is revised.

X-LIB software was completed in 1996 and installed on the network of the Raw Materials Research and Development Council, Nigeria's Network.

#### **The Strengths**

- The fields are structured
- The software has four modules (Acquisition, Catalogue, Circulation and Enquiries/ Reports)
- It is user-friendly, i.e. Windows-based
- Has network capacity
- Has provision for photographs and sound recordings.

CDS/ISIS software. The Computerised Documentation System/Integrated Set of Information System (CDS/ISIS) was developed in 1985 to meet the needs of many institutions especially in developing countries. Giampaolo Del Bigio of UNESCO was the brain behind the CDS/ISIS.

#### **The Strengths**

- This software is menu-driven.
- Flexible and can be customised to meet the in-house needs of any given library
- It is revised periodically
- Has networking capability.

CDS/ISIS is distributed free of charge by UNESCO.

#### **Networking**

Egberongbe (2003) sees the technical service workstation as "evolving technology primarily concerned with networking of computers capable of advanced editing, inputting, with features customised for technical services and able to access and manipulate data in online catalogues and other pertinent resources file both local and remote." With effective networking in place, cataloguers can move in and out of various operations, thereby providing ease of access to the computed information resources of that particular Local Area Network (LAN) and Wide Area Network (WAN).

Ola (2002) encourages cataloguers to be more result-oriented and focused on networking so as to ease the sharing of bibliographic records through the electronic form. He advocates for Online National Bibliographic Network (ONBN) in Nigeria. This strategy will boost online access to international

databases like Online Catalogue Library of Congress (OCLC). Jagboro (2003) and Oketunji (2001) point out that libraries can access Telnet, worldwide web (wwwaccess) and 239.50.

### Methodology

One hundred and thirty two copies of the questionnaire designed for this study were distributed among the 132 cataloguing librarians information specialists that attended the October 2004 workshop held in Lokoja, Kogi State. The participants came from across the six geo-political zones of Nigeria (North-East, North-West, North-Central, South-West, South-East and South-South). The participants were drawn from 43 libraries of universities (Federal/state/private), polytechnics, colleges of education, research institutes and ministries/parastatals/ across the country. The distribution of the questionnaire was as follows: universities (40) (responses rate 87.5%); polytechnics (20) (responses rate 90%); colleges of education 20 (responses rate 80%); research Institutes 10 (responses rate 80%), and the ministries/ parastatals/ agencies 10 (responses rate 70%), 84 responses were received overall.

### Findings and Discussions

The study evaluated the impact the previous workshops, seminars as well as conferences had on the cataloguing librarians and other information specialists in the areas of information and communication technologies between 1998 and 2004. The sex distribution of the respondents showed that the females were 50%, the male were 47.6% response while 2.4% did not indicate. Furthermore, the age distribution indicated that those between the ages of 20-40 years constituted 55.9%. This group of employees fell within the highly most active age bracket and were likely to be able bodied, agile and might be more determined to pursue their careers as well as blending it effectively with ICT. Other age group (41-49 years) constituted 34.5%. This group, on the other hand, might have a lot of responsibilities and therefore were not well prepared to pursue adequately the use of information technologies. For the age group (20-40), there is a likelihood that librarians and other information specialists in this group might see the race for computerisation as a must and therefore likely to act as champions for the realisation of computerisation drives in the libraries

studied if other favourable conditions were put in place.

Of the 84 respondents, 51% of them declared that they attended the workshops regularly, whilst 22.6% of them had not been attending regularly. Others maintained an indifferent position. Most of the respondents (82%) agreed that the workshops held in recent years helped to improve their understanding of ICT as a means of improving library service, while 4.7% of them disagreed, 8.3% strongly disagreed and 4.7% maintained an indifferent position. Sequel to the perceived roles the workshops/seminars/conferences played in promoting knowledge in the field of librarianship, 73.8% of the cataloguing librarians were of the view that they should be allowed to attend the workshop every year, 23.8% preferred once in 2 years, whilst an insignificant proportion of them, 2.4%, said once in 3 years. Library managers need to consider this seriously.

### Training

Training and re-training in the field of ICT is very necessary to allow librarians keep abreast of newly emerging technologies. From the analysis, 66 respondents (78.6%) indicated that the workshops had spurred them into taking further training in the area of ICT, 15.5% said their actions were not spurred, while 5.9% maintained an indifferent position. The data gathered indicate that there are spill-over effects of the workshops on the cataloguers in their respective libraries. Many of the librarians (59.6%) affirmed that they had been organising in-house workshops in their libraries for all ranks and file, while some (20%) were, however, yet to organise any seminars/workshops.

Organising ICT-oriented workshops for all the categories of library staff is very paramount for the smooth take-off of the computerisation venture. This will pave the way for mutual understanding and promote a sense of belonging among the lower cadre of staff. In other words, the exercise should be all inclusive and/or non-exclusive.

### Software

Software is the term used, in contrast to hardware, to describe all programs that are used in a particular computer installation (French 1996). Therefore this research surveyed the software in use in Nigerian libraries. As earlier mentioned there are quite a number of library software in the Nigerian market,



amongst which are X-Lib, GLAS, TINLIB, In Magic, Alice for Windows, ITS, Micro-CDS/ISIS (distributed freely by UNESCO), etc. The findings show that CDS/IS/IS was most used software in Nigerian libraries (44%), followed by TINLIB (33%). X-Lib on the other hand recorded 18%, whilst other software accounted for 3.7%. The distributions are demonstrated in the pie-chart (Fig. 1).

The research investigated the possible problems being encountered in using software in libraries. It appears that the type of software interface in use may create problems where the know-how is inadequate. For instance, a command-driven interface requires the following from the user:

- a knowledge of what commands are available and what they do;
  - the rules governing how the commands should be typed; and
  - extensive knowledge of computer operation, with such a person operating at a level of a computer operator/programmer, or someone who has continually worked with similar programs and has gained the mastery of the commands.
- To make commands friendly the following need to be observed (French 1996):
- The command words used should be VERBS, e.g. DELETE, COPY, PRINT
  - The format should observe a simple and consistent set of rules, e.g. PRINT report 1, PRINT report 2, PRINT report 3.
  - Unique abbreviations should be provided for more experienced users, e.g. PRI, COP, DEL

Menu driven interfaces on the other hand provide users with options and means of selecting between them. The interface is most convenient and suitable for beginners. Therefore, for effective navigation, a menu-driven option is necessary to avoid the difficulties faced in the use of command driven interfaces. Results show that 77.7% of the software being used in the libraries used was menu-driven software, whilst 18.3% continued with commands-driven interfaces.

#### Mastery of the Software Installed

The study also attempted to find out the number of cataloguers who had attended the workshops that could perform the whole or part of the operations, including: turn on the computer, call up the cataloguing worksheet, complete all the fields, verify/edit data

Fig. 1: Software Distribution Based on their Use

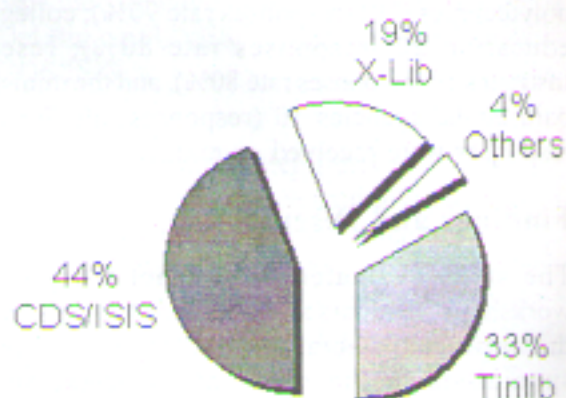


Table 2: Respondents' Mastery of the Operations of Installed Computer

Operation	Frequency	Proportion of Respondents (%)
Can effectively turn on the computer	60	71
Can log off the system	58	69
Can search the information stored	50	59
Can call up the cataloguing worksheet	48	57
Can display information keyed in	48	57
Can back up data into floppy disk	45	53
Can print where necessary	43	51
Can complete all the fields	42	50
Can verify/revise/edit data keyed in	40	47

N = 84

keyed in, print, search information, back up data and log off the program. The responses are displayed in table 2.

Table 2 shows that 71% of the cataloguers surveyed could effectively turn on the system, 57% could get to the template and 50% were able to complete all the fields in the computer worksheet. Additionally, 47% were able to verify and edit data keyed in, 57% could display records from the database, whilst 51% could print. Also, 53% could back up records in the system and 69% were able to log off the program.

### Internet Connectivity

Now that the whole world is being bridged through the Internet, the libraries that are connected have very much to gain in terms of access and provision of online information. The study went further to establish the number of libraries studied that were connected to the Internet. This study shows that only 14% of the libraries were connected, with 4.7% having their catalogue records online. Others were yet to do so.

The study investigated the factors militating against the computerisation of cataloguing the libraries studied. There were quite a number of problems encountered by the cataloguing librarians. Table 3 summarises the problems.

Majority of the respondents (62%) were of the view that there was inadequate supply of micro-computers (PCs) in their libraries. Another distinguishable problem was the management's lukewarm attitude which 61% of the respondents identified. These were followed by poor

telecommunication facilities that impede networking/Internet connectivity (59%), inadequate supply of electricity (56%). Cost of maintaining the software and hardware was mentioned as a problem by 54% of the respondents, followed by training received by cataloguers is not enough to master all the intricacies of the installed software (52%).

Finally, the study investigated solutions to these problems. One of the suggested solutions made in previous workshops was that libraries should form users group as an avenue for solving problems as they arise. Alas! Only four percent of the respondents believed that libraries had acted positively in this direction. While most libraries were yet to explore this avenue, 19% of the libraries studied made use of consultants, while 37% relied on cooperation from sister libraries to solve their teething software problems. Also, 44% of them preferred in-house brainstorming on technical issues.

### Conclusion

This study has revealed the efforts which the Cataloguing, Classification and Indexing Section of the Nigerian Library Association has been making towards a shift by Nigerian libraries from manual practices to electronic library operations. The study has emphasised the need for the technical staff of Nigerian libraries to cultivate and develop in the area of information and communication technologies, software choice parameters used in procuring software and the level of mastery of installed software.

The results of the data analysis clearly show that

**Table 3: Identified Problems Encountered in Cataloguing Automation**

Problems	Frequency	Proportion of Respondents (%)
Inadequate supply of micro computers	52	62
Managements indifferent attitude	51	61
Poor telecommunication facilities	50	59
Inadequate supply of electricity	47	56
Cost of maintaining the software/hardware is enormous	46	54
Training received is not enough to master all the intricacies of the system	44	52
Apathy on the part of the librarians	40	47
Available computers are obsolete	20	24

the workshops organised between 1995 and 2004 had spurred the actions of the participants to further pursue ICT application in their libraries (78.7%). Secondly, out of the 84 respondents, 54 declared that their libraries had joined the race for computerisation. Also, more than 50% of the respondents had mastered and can effectively work on computers. But only 14% of the libraries had their catalogue records online. Some of the identified problems were the enormity of cost of maintaining software and hardware, inadequate supply of micro-computers and in some cases, obsolescence of the available computers. Others include: inadequacy of training received, managements' indifferent attitude, apathy on the part of librarians, the epileptic electricity supply and poor telecommunication facilities. To combat these teething problems, some strategies were evolved, such as, cooperation with fellow libraries, use of consultants and internal arrangements.

### Recommendations

Appropriate steps and procedures in the selection and procurement of the software to be used in a library are highly desirable. The choice must be carefully made so as to avoid running into trouble with the management of such institution. It is expected that the earlier discussed choice parameters be followed. Dedicated and menu-driven software is desirable. Additionally, chosen software should be amenable to integration with other library operations.

When the choice of a software is to be made, it is advisable that a library pays visits to neighbouring libraries which use similar software to study its operation for a period of time in order to have thorough knowledge of the intricacies of the software – techniques for installation, input and its functions, facilities for editing/verifying and displaying records. Others include the printing of records, and how to backup and merge records.

Furthermore, it is recommended that in-house training be carried out for all levels of staff to get them acquainted with new software. Consultants or other experts in the field can be hired to organise training programmes.

Similarly, library managers should support their cataloguers to regularly attend the annual workshop of the Cataloguing Classification and Indexing Section of the Library Association of Nigeria. It is a forum

where experts are brought together and experiences discussed and shared.

Finally, libraries need to form users' groups an avenue for solving their technical problems. This strategy should be employed to complement internal arrangements and the use of outside consultants.

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# Freedom of Information and Records Management in Ghana

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## Abstract

*In recent years there has been a drive towards the passage and implementation of freedom of information (FOI) legislations in many countries. Access to information is gaining acceptance as a necessary tool in ensuring the participation of the citizenry in democratic governance. An effective implementation of a freedom of information law is expected to lead to an open, transparent and accountable society. This paper identifies some countries which have passed and implemented the FOI laws and the relevance of the law in the Ghanaian context. Some basic elements of FOI are provided, a summary of the Ghanaian draft bill given and the basic information infrastructure in the country examined. The paper argues that an effective records management system is required to ensure a successful implementation of a freedom of information law and cites from the United Kingdom and India Acts to support this position. Some weaknesses of the bill such as, lack of an impartial internal review procedure, independent implementing and monitoring authorities are identified and suggestion made for solving these problems.*

## Introduction

Many countries that have introduced freedom of information legislations are seeking to replace the culture of secrecy that prevails within civil service with a culture of openness. All over the world access to information is gaining acceptance as a necessary adjunct to participatory democracy. Freedom of information (FOI) laws are intended to promote accountability and transparency in government by making the process of government decision-making disclosure the rule rather than the exception (Iyer, 2000). According to Mnjama (2000), there is a new realisation that government held information is a public resource-created, assembled and maintained by public servants and paid for by taxpayers. Currently, it is estimated that as many as forty countries provide access to government held information either through discrete legislation or codes of practice.

The rationale for the right to information is rooted simply in the concept of open and transparent government. Access to information legislation provides citizens with a statutory right to know and makes the government more accountable to the people being governed. *The Commonwealth Heads of Government (CHOGM) 2003 Report* in its Executive Summary indicates that studies show that countries with access to information laws are also perceived to be the least corrupt. This is borne out by the 2002 *Transparency International's Annual Corruption Perception Index* in which none of the ten countries perceived to be the worst when it comes to corruption had a functioning access to information regime. On the other hand, about eight out of the ten best countries had an effective legislation. According to Iyer (2000), the legislation facilitates the acquisition

of knowledge, encourages self-fulfilment and acts as a weapon in the fight against corruption and abuse of power by state functionaries.

In some African countries the principles of freedom of expression and free exchange of information are enshrined in their constitutions. In Botswana, Cameroon, Kenya, Lesotho, Sierra Leone and Zambia, their constitutions provide for access to information as part of speech and expression. In Mozambique, Tanzania and Uganda access to information is specifically guaranteed in their constitutions. However, specific freedom of information legislation is required for citizens to exercise these rights. In 1999, media advocacy groups initiated a freedom of information bill in Nigeria (Commonwealth Human Rights Initiative). The bill insists on the right to information for both Nigerians and non-Nigerians and seeks to defend the values of openness in society. It has been passed by the House of Representatives with a modification of the limits of access, but is yet to be considered by the Senate (Abati, 2004).

In Ghana, Article 21 of the 1992 Constitution guarantees freedom of expression and the right to information and envisages that parliament will provide the legislative framework for the exercise of the right to information. South Africa and Malawi are the only two African countries which have specifically passed a legislation to make information accessible to its citizens. A preamble to the South African Act sets out to give effect to the constitutional right of access to any information held by the state and any information that is held by another person and is required for the exercise or protection of any rights (Promotion of Access to Information Act 2000). Zimbabwe has also passed a legislation called the Access to Information and Protection of Privacy Act. However, the Zimbabwean Act has been criticised as "more about control of the media than about creating mechanisms for citizens to access information held by the state" (Dimba, 2002). It is argued that some governments have responded to pressure to adopt freedom of information legislations but limited the right as much as possible, and Zimbabwe is such an example (Mendel, 2003)

Ghana is in the process of legislating for the freedom of information. The Bill, currently in a draft form, is being studied by all stakeholders for eventual passage into law by parliament. The need for a freedom of information legislation in Ghana is a result

of many years of military and quasi-military rule that had led to a culture of silence. For a freedom of information legislation to be practicable and effective there is the need to ensure that the sources of the information are well managed. Relevant and accurate public records are essential to preserving the rule of law and demonstrating fair, equal and consistent treatment of citizens. Without access to records, the public does not have the evidence needed to hold officials accountable or to insist on the prosecution of corruption and fraud. However it is critical when considering access laws to develop an effective records infrastructure to prevent among other things the manipulation, deletion and loss of records (Millar, 2003). All aspects of public service, including health, education, pensions, land and judicial rights, depend upon well-kept and well-managed records.

Records provide a reliable, legally verifiable source of evidence of decisions and actions. They document compliance or non-compliance with laws, rules, and procedures. Records management issues should therefore be addressed by a freedom of information law and ideally improvements implemented prior to its introduction. Mnjama (2003) quotes Bolton (1996) to buttress this position when he noted that "without a substantial and comprehensive records management in place the FOI legislation would not be worth the paper it was written on. Records could neither be identified as existing nor would they be obtainable from their storage". One fact often ignored by governments in the implementation of FOI is that it lays considerable demand on records management personnel. Sound records management principles must be adhered to if governments are to successfully implement the requirements of access laws (Mnjama, 2003). According to Hatang (2005) effective implementation of the South African Act has been hampered by what he terms an environment characterised by a "wild west" approach with few if even any rules that apply. Poor records management practices should not be allowed as an excuse for lengthy replies and sub-standard document searches.

In recognising the importance of an effective records management system in the successful implementation of a FOI, Section 4, Subsection 1 (a) of the Indian Act requires "every public authority to maintain all its records duly catalogued and indexed in a manner and form which facilitates the right to information under the Act and ensure that all records

that are appropriate to be computerised. . . are computerised and connected through a network all over the country on different systems so that access to such records is facilitated" (Right to Information Act 2005). In the case of the United Kingdom and the Northern Ireland, The Lord Chancellor is vested with the responsibility to issue, and from time to time revise, a code of practice providing guidance to relevant authorities as to the practice which it would, in his opinion, be desirable for them to follow in connection with the keeping, management and destruction of their records (Section 46 of the FOI Act 2000). Mnjama (2000) quotes Snell (1993) who had conducted studies in Tasmania, Australia of being of the opinion that the passage of FOI legislation in Australia as a "mixed bag" and that change in the management of records prior to its implementation had lessened the potential of any significant impact. Although Snell (1993) does not categorically state that FOI is likely to improve records keeping practices in such areas as filing, storage, retrieval and destruction of government records, he does acknowledge that the passing of FOI is likely to lead to improvements and efficiency of these systems.

This paper takes a look at the main elements of a freedom of information legislation and salient points of the Public Records and Archives Administration Department Act (PRAAD) that governs records management in Ghana. The paper also reviews recent developments in the management of records in Ghana and how it would impact on the implementation of a freedom of information legislation. It is assumed in this write up that for Ghana's freedom of information legislation to be effective, records keeping practices will have to be improved upon to make the records accessible to both the creating institutions and requesters.

### **Basic Principles of Freedom of Information Legislation**

Literature reviews show that attempts have been made to draw up lists of principles aimed at guiding the formulation of FOI legislations (Iyer, 2000; Chogm 2003 Report; Mnjama, 2000, 2003; Model FOI Law). However, there are some formidable challenges such as definitional problems, the extent of coverage, costs of administering a FOI regime and questions as to the procedure for access (Mnjama, 2000). Trying to

broaden the coverage can lead to the risk of either being paralysed by its own success or sapping the morale of the administration, however, well intentioned. On the other hand, a minimalist system runs the equally unacceptable risk of proving so ineffective as to lose all credibility with the public. The key to success therefore lies in treading a middle course, which ensures practicality rather than any attachment to doctrine, irrespective of the desired objectives (Iyer, 2000).

Notwithstanding the challenges earlier referred to, certain basic principles are required in functioning freedom of information legislations. These are that:

- *The objectives of the legislation must be stated as clearly as possible.* Having clearly stated objective clauses would help in administrative and judicial interpretation.

- *The extent of coverage must be defined as widely and as precisely as possible.* In this respect, two aspects need to be considered (i) the subject matter, and (ii) institutions. Terms such as record or document should include information contained in correspondence, memoranda, books, plans, maps, drawings, photographs, films and sound recordings, video-tapes and other media. Its coverage of institutions should ensure wide latitude in order to make the legislation meaningful. The following bodies should be covered: public bodies, including quasi non-governmental organisations, state-run commercial enterprises, hospital trusts, local authorities and any institution which performs functions on behalf of the public.

- *Access to information should be made as nearly universal as possible.* No unreasonable conditions should be imposed on access to information. Citizenship should not be made the basis for access since it can deny information to large sections of legally-resident population in the country.

- *Narrow definition of exemptions and exclusions.* There are legitimate exemptions to the FOI provisions; however, the categories of exemptions should be defined as narrowly as possible to avoid preserving secrecy. Some of the most frequently used grounds for exempting disclosure are:

- national security
- law enforcement and the prevention and investigation of crime
- public safety
- records relating to the formulation of policy
- personal information (unless related to the person making the request)
- conduct of international relations
- confidential and commercially sensitive information
- confidentiality of ongoing research
- confidentiality of information contained in electoral rolls
- public health, i.e. patient records.

As a safeguard to lessen the rigours of exemptions, some laws have overridden provisions while others have time limits on the secrecy permitted. These laws the:

*Disclosure should be made the rule and non-disclosure the exception.* Where a request has been denied, the onus should be on the authority concerned to show that the information being withheld falls within one or more of exempted categories rather than for the requester to prove that it does not.

*Culture of openness/Educating citizens.* The government needs to meet certain obligations that will ensure a culture of openness and facilitate access. These include a duty to publish and disseminate as widely as possible documents of significant public interest. Such publications can be on issues relating to their structure, functions and operations, classes of records held for the body, arrangements for access and names and contact details of officers designated to deal with FOI requests.

*The procedural arrangements for access to information should not be unduly burdensome.* A key test of the credibility of FOI legislation would be the ease, inexpensiveness and promptness with which those seeking information are able to obtain it. There are certain very important elements under this principle that need to be provided for to make it more credible. It would be desirable that the law permits applicants to inspect, read, view or listen to official records as well as ask for photocopies,

transcripts, summaries or computer printouts of them. Applicants may also be allowed to obtain oral information about the contents of documents. It is important that in a country with more than one official language, the law should require the authorities to comply with requests for translations in any of the recognised languages.

The right of appeal against a withholding decision is one of the most important provisions of a FOI protecting against undue secrecy by providing a mechanism for the scrutiny of decisions. Laws usually require agencies when denying requests to notify requesters of their rights of appeal and the procedure to be followed. Without this, the effectiveness of FOI would be minimised. There should be an independent and impartial arbiter to decide any disputes that may arise in the interpretation of the law. Providing for an independent and impartial arbiter to resolve disputes is in particular one of the most valuable safeguards against administrative lethargy, indifference or intransigence. Some laws have information commissioners, ombudsmen, information tribunals and the courts.

### **Importance of a Freedom of Information Legislation to Ghana**

Good government requires the participation of citizens. For citizens to participate effectively the electorate must be well informed, and this means access to the facts about government business and activities. In Ghana, every citizen has a constitutional right to information, yet there is no legislation to clarify these rights. Besides, the public lacks awareness about how to obtain information, particularly from government. Part of the problem is that many public servants find it difficult to know which information is confidential and therefore whether to allow access to it or not. Institutional mechanisms often serve to restrict access to information rather than facilitate it.

The lack of direction as to what information to provide on request to the public has created a syndrome where public servants find it safer to refuse access to information even when such information is in the public domain. The World Bank in April 2000 commissioned the Centre for Democracy and Development (CDD) to carry out a diagnostic survey on corruption in Ghana. Information was sought from the Value Added Tax (VAT) Secretariat on VAT



registered firms in Accra to be added to a list of firms obtained from sources such as the Chamber of Commerce and other business directories. The response from the VAT Secretariat to the request was that the information requested was confidential and had been passed on to the Minister of Finance for authorisation. Subsequently, the Minister denied the request even though the information, which had been declared confidential, was at least partially in the public domain. In late 1999, the Secretariat having published the list in all the major newspapers the CDD wanted an updated version (Gyimah-Boadi, 2000).

Contributing to a debate on the merits of the Bill, Boadu-Ayeboafoh (2003) intimated that even though it was the responsibility of the media to inform the public, this must be done with circumspection. He explained that where information was distorted or where people were either misinformed or malinformed the consequence could be disastrous. The role of the mass media in informing the public is very important in ensuring democracy. However, it is expected that this should be done within the provisions of the laws of the land. (Daily Graphic, 14 February 2003).

According to Kumado (2000) by far the most important strategy in the Constitution for promoting access to information is the requirement contained in Article 21, which envisages that Parliament will provide the necessary framework for the exercise of the right to information. However, the existing law is flawed in relation to the 1992 Constitution because it was not designed to promote but rather to deny access to information. This is because Parliament has still not performed its important function of passing a legislation that will provide a framework for access to information.

### **The Draft of Right to Information Bill 2003**

The 1992 Constitution of Ghana has made provision for the enactment of a law by parliament to make information accessible to Ghanaians. It has been argued that access to information can lead to making governments open, accountable and available to the people. Thirteen years into constitutional rule in Ghana, parliament is in the process of performing its responsibility of passing legislation that will provide a framework for access to information. This is contained in The Right to Information Bill, 2003, which is being debated by the public before its passage into law.

The Act seeks to provide for the right of access to information held by a government agency or private body subject to such exemptions as are necessary and consistent with the protection of the public interest and the operation of a democratic society. The Act also seeks to provide for the right of access by an individual to personal information held by a government agency or a private body which relates to that individual, to protect from disclosure personal information held by a government agency or a private body to the extent consistent with the preservation of personal privacy. It also seeks to provide for internal review by the high court, decisions of ministers and private bodies and to provide for the right of appeal in relation to matters under the Act.

The Bill is divided into eight parts and summed up according to the sections under the parts.

**Part I- Access to information in custody or under control of government agencies; responsibility to inform.** The first two sections deal with the right of access to official information and the responsibility of government to provide information on governance.

**Part II- Exempt information.** This is made up of sections 3 to 17. Some of the issues dealt with are information from the President and Vice President's Office, information relating to Cabinet, law enforcement, public safety and national security, international relations, defence, economic and third parties, tax and internal information of agencies. Others are information that relates to parliamentary privilege, fair trial and contempt of court, information subject to medical professional privilege, frivolous or vexatious application and disclosure of personal matters.

**Part III- Compilation and publication of information of an agency.** These are Sections 18 and 19 dealing with the responsibility of sector ministers in respect of access and provision of manual of guidelines.

**Part IV- Procedure for access.** Sections 20 to 30 cover application for access to information held by an agency, the person to deal with application, transfer of application, deferred access, decision on application and information that cannot be found or is not in existence. Others are when agencies may

require advance deposit, extension of time to deal with an application, the right of an agency to refuse process for failure to pay deposit, refusal of access and the manner of access.

**Part V- The right to apply for amendment of personal records in a document in the custody of an agency.** This part, made up of Sections 31 to 38, covers the amendment of personal records, the method of application for amendment of information contained in agency records, dealing with an application to amend records, incomplete applications, determination of applications, refusal to amend records, notice of determination and notations to be added to records.

**Part VI- Internal reviews and appeals.** This is made up of Sections 39 to 46 and deals with internal review by the relevant minister, action by the minister, decision of minister on review, application to the high court for judicial review, application to Supreme Court for judicial review in respect of access to exempt information, power of the Supreme Court, ruling of the Supreme Court and the right to a lawyer or other expert.

**Part VII- Access to information of private bodies.** Sections 47 to 71 make provision for accessing records of private bodies. The sections define a private body, the right of access, manuals of particulars of a private body, fees, refusal of request, form of access, access to information that relates to health, protection of the privacy of a third party, protection of commercial information of third party etc.

**Part VIII- General and miscellaneous provisions.** The last part is made up of Sections 72 to 91 and deals with general and miscellaneous issues such as the burden of proof, appointment of information officers, protection in respect of actions for defamation or breach of confidence, protection in respect of certain criminal actions, fees and charges, waiver of fee on the basis of financial hardship, annual reports by agencies and report by the Attorney-General and Minister for Justice for the Act, and limitation of period for exempt information. Others are information held by the national archives, museums and libraries, application of Act to existing and future information and offence of disclosure of

exempt information.

#### **An Assessment of the Bill**

A critique of the draft Bill is the lack of a preamble that will explicitly espouse the principle of "maximum disclosure" and state that the objective of the Act is to "foster a culture of transparency and accountability". Such objective clauses set the tone for the rest of the Act and provide a good guide to officers interpreting provisions of the Act. The Indian Act also has similar objectives in the introduction to the Act.

Part III of the Bill deals with the compilation and publication of a manual on information of an agency. Section 18 (1) enjoins every minister responsible for a ministry to ensure the compilation and publication of an up-to-date official information in the form of a manual listing all government agencies under the ministry. Subsection 2(b) demands the compilation of a list of the various classes of information which are prepared by or in the custody or under the control of each agency. The use of "information" instead of "records" or "documents" is likely to create problems in the compilation. Section 8, subsection 1 (iii) of the Australian Act requires the minister responsible for an agency to cause to be published, as soon as practicable after the commencement of the Act in an approved manner a statement of the categories of documents that are maintained in the possession of the agency.

While the Indian Act in Section 4, Sub-section 1 (a) and the United Kingdom Act in Section 46 make provision for the management of records, there is no such provision in the draft Bill. This shows that the drafters of the Bill have failed to recognise the importance of records in the successful implementation of the legislation. It is necessary that a provision be made for agencies to ensure effective management of both public and private records to facilitate easy and fast access.

Making a sector minister responsible for the review, as provided for in the draft Bill, could discourage applicants and even keep ordinary people away. There is the possibility of delays, as the minister will have other responsibilities that may slow down the review process. There is the fear also that being an appointee of the government, the minister will not be fair. In Japan, members of the appeals body, the Information Disclosure Review Board, are appointed by the Prime Minister after approval of both houses of the legislature and this prevents control of the

process by any single political party (Mendel, 2003). The Australian Act in Section 55 makes provision for an Administrative Appeals Tribunal to carry out internal review of appeals. The Commission for Human Rights and Administrative Justice (CHRAJ), which is already in existence, could be empowered to perform this review function.

The Attorney General and the Minister of Justice has been vested with ministerial responsibility for the full implementation of the Act in Section 79 and may for that purpose issue written guidelines to agencies, ministries and private bodies. The Minister's functions include conducting public education programmes and information for implementing the Act. In view of the fact that the Bill makes certain demands on government, it is feared that it may promote the culture of secrecy. There is the need for an independent monitoring authority to oversee the working of the laws such as the Human Rights Commission (HRC) in Section 83 of the South African Act. Among the duties of the HRC is to prepare a guide informing the people on how to use the Act, to submit reports to the National Assembly, monitor the working of the Act, and recommend amendments to develop and improve the Act and train information officers. There is the need to include an effective whistleblower protection in the legislation. This would follow the South African lead.

### Provision of the Required Information Infrastructure

As part of the Civil Service reform programme began in the early part of the 1990's in Ghana, the Overseas Development Administration (ODA), now the Department for International Development (DFID) contracted the services of the Overseas Records Management Trust (ORMT) now the International Records Management Trust (IRMT), to advise the government of Ghana in 1992 on records management. Workshops were organised on the management of semi-current and non-current records (Anim-Asante, 1997). These workshops brought to light, the problems that had inhibited a coherent records management system in Ghana. The problems identified were a breakdown of registry practices, the lack of storage facilities for semi-current records and the lack of trained staff. The studies carried out resulted in the British government financing a three-year project designed to establish efficient systems

for the management of public records in Ghana. Some of the objectives of the project were:

- i) Restructuring the National Archives to a national records administration.
- ii) Developing a new Records Class for the whole Civil Service with an associated scheme of service and job descriptions for staff serving the class.
- iii) Restructuring registries and records services in ministry headquarters in Accra.
- iv) Establishing a records centre for semi-current records and establishing retention schedules for common categories of records.
- v) Developing training schemes locally and overseas to prepare staff at the necessary levels to provide efficient records services. (Overseas Records Management Trust, 1992).

The reforms in the Civil Service and the re-organisation of the National Archives resulted in the passage of a new law, the Public Records and Archives Administration Department Act of 1997, Act 535 to establish the Public Records and Archives Administration Department (PRAAD). Until 1997, the principal legislation for records management in Ghana was provided by: (a) the Public Archives Ordinance 1955; and (b) the Public Archives Regulation, 1958. The Act was therefore to address the obvious deficiencies of the existing legislation on records management and to emphasise the need for a new legislation that ensures a holistic approach to the management of records through their entire life cycle.

Sub-section (2) of Section 1 of the Act defines the responsibilities of the PRAAD as, to:

- a) Ensure that public offices, institutions and individuals who create and maintain public records follow good record keeping practices.
- b) Establish and implement procedures for the timely disposal of public records.
- c) Advise on best practices and establish national standards in records keeping in the public services.
- d) Establish and implement procedures for the transfer of public records of permanent value for preservation in the National Archives or other archival repository as may be designated by the

### Act.

The Director of PRAAD is required under Sections 7 and 8 to ensure the management and keeping of current public records, accept custody of semi-current records which have been scheduled for further retention and maintain them within a records centre. Section 9 enjoins the head of every public institution where public records are created and kept to establish good records keeping practices within the registry for the management of public records in accordance with standards directed by the Department. Furthermore, in Sections 10, 11 and 12, the Act outlines the responsibilities of heads of public institutions at the regional and district levels in the management of public records.

Under the new legislation the Director of PRAAD has been authorised to extend the services of the department to cover private institutions on request and payment for services rendered. In this respect the Department is planning to rent out space in the National Records Centre to private institutions for the storage of their records for a fee.

To ensure that the new law on records management achieves the purposes for which it was passed, parliament has passed a legislation to create a records class in the civil service. This second legislation is to ensure professional management of public records from creation in offices through their maintenance and use at records centres to their ultimate transfer to the archives or destruction. In line with this integrated approach to records management a modern records centre with a capacity to store eighty thousand records centre boxes has been built in Accra on the premises of PRAAD.

Besides the PRAAD offices in Accra, there are eight regional offices as well. These are in Kumasi (Ashanti Region), Sunyani (Brong Ahafo Region), Koforidua (Eastern Region), Ho (Volta Region), Cape Coast (Central Region), Sekondi (Western Region) and Tamale which serve the Northern, Upper East and Upper West Regions. However, PRAAD has no district offices. Records centres have been established in all the regional offices to cater for semi-current records generated in the regions. It is expected that this background provides a fairly good basis to support the operation of the FOI law. The assertion by Mnjama (2000) that archivists and records managers, as official custodians of government information holdings, should be involved

at every stage during the formulation and development of FOI legislation is very relevant. The Bill makes provision for the appointment of information officers in every agency and private body and it is expected that the records officers in these institutions will perform this function. Thus, the records staff will need to be resourced and trained to be able to perform.

### Conclusion and Recommendations

As part of measures to ensure effective administration of the country and the participation of the people in governance, Ghana has been divided into one hundred and thirty-eight administrative units called district assemblies to ensure the decentralisation of the process. Each assembly has a registry that manages its records, being public agencies, it was expected that PRAAD would ensure effective management of their records, but evidence on the ground shows the contrary. There is no link between PRAAD and the district assemblies in the management of their records. Newly appointed clerical staffs are usually assigned the responsibility of managing their registries (Nsiah-Asare, 2003). In view of the fact that these assemblies are the administrative units closest to the people it is vital that their records be managed well in order to provide the needed information infrastructure for the implementation of the FOI legislation. The Institute of Local Government Studies (ILGS) has attempted to fill this gap by organising training programmes in records management for registry staff from some selected district assemblies; but this can be done more effectively by PRAAD (ILGS Annual Report, 2003).

In regard to the draft freedom of information legislation 2003, it is important that the provision under Part VI dealing with the internal review and appeals is given a second look. In most countries an independent body such as an ombudsman, information commissioner or information tribunal carries out the review. Such bodies are seen as more independent and their decisions are respected. Independent oversight is essential where public officials refuse to disclose information, especially if they are hiding corruption or other wrongdoing. While individuals may have the right to appeal to the courts, it is often inaccessible and the process excessively time consuming. The Draft Bill also makes provision for access to information held by a private body.

However, even though efforts have been made to improve upon the management of public records, no efforts have been made to improve upon those of the private institutions. It will be necessary to educate the private bodies on the need to ensure effective management of their records and to seek for advice from PRAAD to ensure a successful implementation of the Act.

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# Women Librarians in Ghana: Their Status and Career Development

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## Abstract

*The study investigated the current status and occupational characteristics of professional women librarians in Ghana. The study also sought to establish their career advancement opportunities and to investigate factors inhibiting their career development. Another objective of the study was to find out how they were perceived by their male counterparts. Using data obtained through questionnaire, the study sought for information relating to the background of female librarians in Ghana, their work experience, status and career advancement opportunities. All the professional women librarians in Ghana were included in the survey. The population size was thirty-five. The findings reveal that women librarians in Ghana could advance to any height without discrimination. Also, they did not experience any form of discrimination from their male counterparts in terms of remuneration or career development.*

## Introduction

Discrimination against women has been a long standing issue which society continues to grapple with. This is especially so in Africa where gender roles are distinct. The women are occupied with domestic responsibilities, "which typically involve household chores and caring for the home" (Majanja and Kiplang'at, 2003). This may be due to the fact that in the past, more emphasis was placed on educating the male child rather than the female child. So that even if the female child grows up and wants to take on a job, she is left with limited choice. Typical female jobs include petty trading, subsistence farming and casual labour. These are low paying and low status jobs. The situation is, however, a lot different now because of improved access to education by women which has broadened their horizon and given them many job options. It is common therefore to find women all over the world in different professions and at different levels competing with their male counterparts.

Women in Ghana have also taken up the challenge to move away from the traditional roles normally associated with women. As a result women can be found in all the professions including librarianship of which they make up about 40.5% (Ghana Library Association, 2004). In the pursuit of their career, the professional women librarians compete with their male counterparts. The question this poses is whether gender has in any way affected the status of women in the library profession and their career development.

The main objective of the study is to investigate the current status, occupational characteristics and career advancement opportunities of professional women librarians in Ghana. Even though some research has been done on women librarians, no such

research has taken place in Ghana. It is to fill this gap that the research has been undertaken. Further, this study was motivated by a similar study of Kenyan women librarians by Majanja and Kiplang'at (2003). In that study, they found that, the status of women librarians in Kenya has consistently been lower than that of men in terms of position and remuneration. The researchers thought it would be interesting to find out whether a similar situation exists in Ghana. It is hoped that this study would throw more light on the status of women librarians in Ghana and add to the body of knowledge on women librarians in general.

### Literature Review

Dasgupta (1998) in a paper presented at the 63<sup>rd</sup> IFLA Council and General Conference (Copenhagen, Denmark, August 31 – September 5, 1997) observes that in India, the status of women has been measured by the actual position occupied by women in society, family, place of work and within the economic power structure. The main dichotomy of the situation, she pointed out, is that when it comes to higher positions, there is a hierarchical discrimination because the decision makers allege that women lack business and decision making abilities. This justified their second-rate status within the profession. Her study, however, points out some redeeming features in the Indian situation. Hildenbrand (1989) draws attention to the fact that library feminists searching for equality have concentrated their efforts on pay equity and on increasing the number of women in managerial positions. For her, it is now time to concentrate on other fronts for gender equality. She points out that the literature on "women's work" including the so-called women's professions such as librarianship, nursing, and elementary school teaching, stresses that such work is usually devalued. The pay, status, career opportunities and working conditions in these occupations are generally lower for both the men and women in them, than they are in similar professions requiring similar levels of education and responsibility but not tagged as women's work. Another characteristic of these female-intensive professions is that the male minority is over-represented at the top positions and better paying areas.

In a similar vein, Heim (1982) points out that whether women are rising up the ladder of librarianship at an accelerated rate is still an open

question. A decade of activism on the part of women has resulted in no clear improvement of status. There have been gains and losses. A closure of the starting salary differentials (up to 1979) is outweighed by a continuing divergence of salaries in relation to time spent in library work.

Gregory and Ramirez (2000) also discuss the steady rise of salaries for librarians in the United States of America and observe that average beginning salaries for 1999 library and information graduates is 6.5% increase over 1998 average. They, however, expressed surprise that the average salary for women rose only to 5.2% in 1999 while that of men leaped to 12%. Cheda et al. (1978) in their investigation carried out to establish salary differentials of female and male librarians in Canada found out that although men had a higher position on the average than women, this did not explain the difference in salaries. The difference between female and male chief librarians mean salaries was \$4,584. This could be explained somewhat by an age difference – men were an average of two years older than women in this position. Also more women had interrupted careers than men. Majanja and Kiplang'at (2003) discuss women librarians in Kenya, their status and occupational characteristics. They conclude that the status of women librarians in Kenya has consistently been lower than that of men in terms of position and remuneration. Apart from the few women who hold top positions or have ventured into automation, the majority still specialised in cataloguing, circulation and children's work. These are often referred to as routine and hardly promote ascension to higher levels in the profession.

Jones and Oppenheim (2002) carried out a study to determine if the UK library profession suffered from so-called intraoccupational segregation, whereby men dominate the senior positions within the profession's institutions. Particular attention was paid to the so-called "glass ceiling" whereby women find a barrier to promotion when they reach their forties even though up until then, enjoying a reasonable successful career. A "glass ceiling" is an unofficial barrier to an upper management or other prominent position within a company or other organisation which certain groups particularly women are perceived to be unable to cross due to discrimination (Wikipedia Free Encyclopedia, 2005). The perceived barriers they considered include lack of academic qualifications, salary differences,



geographical mobility and domestic responsibilities. Others are lack of female role models, the need for mentors and lack of ambition. Their results indicate that "glass ceiling" issues in the libraries are still concerns for many women in the profession. The lack of qualifications does not seem to pose a barrier to promotion. The main barrier appears to be mainly due to domestic responsibilities, particularly taking a career break to bring up children. They conclude that for many women the "glass ceiling" is imposed by themselves.

Ogunrombi, Pisagih and Udoh (2002) examine the contribution of female librarians to library development in Nigeria from 1960 to 2000. Their study reveals that only few female women librarians were appreciated and cited in Nigerian biographical works. Their study also shows that, the status and role of women librarians in Nigeria is marked by an "explicit pattern of discrimination". The literature review shows that even though some research has been done on women librarians, no such research has taken place in Ghana. It is to fill this gap that the research has been undertaken.

### Methodology

A survey approach was used in this study. The survey method is widely accepted as a means of getting needed information. Data for the study was collected using a questionnaire. Questions were asked relating to type of library, highest qualification and marital status. Other questions dealt with number of years worked, current rank, how male colleagues viewed their female counterparts, and career advancement opportunities.

### Population and sampling

The concept of population is fundamental to survey research. For this study, the entire population was surveyed. It is possible to survey an entire population if it is of a manageable size and this is known as a census survey (Saunders et al, 1997). Sampling is therefore not required. The population for this study was thirty-five professional women librarians. Professional women librarians are defined in this study as Ghanaian women with postgraduate qualification in librarianship working in Ghana. The researchers used Alemna's (1995) *Librarians in Ghana: A Who is Who and Annotated Bibliography* and Ghana Library Association's

(2004) *Directory of Libraries and Library Professionals in Ghana* to identify the population for this study. Data for the study was obtained from copies of the questionnaire filled by the women librarians. Thirty-five copies of the questionnaire were distributed to female professional librarians in all the university libraries (public and private), the public library system, special libraries and the Department of Information Studies at the University of Ghana. Some copies of the questionnaire were distributed personally by hand while others were sent electronically as email attachments. A period of six months was allowed for respondents to return their copies of the questionnaire.

Responses were coded and processed using the Statistical Package for the Social Sciences (SPSS). For easy interpretation the frequencies and percentages were used. Cross tabulations were also made of some of the responses obtained.

### Findings and Discussion

Out of thirty-five (35) copies of the questionnaire distributed, twenty-seven (27) were completed and returned. This gave a response rate of 77%. Table 1 shows the response rate by type of library.

**Table 1: Distribution of Respondents by type of Library**

Type	Frequency	%
Academic library (state-owned)	19	70.4
Special library	4	14.8
Academic library (private)	2	7.4
Public library	1	3.7
No response	1	3.7
Total	27	100.0

Table 1 reveals that majority (70.4%) of the professional women librarians were employed by the public academic libraries. This is not surprising since there are more public universities, which have been in existence much longer than the private universities. This result is similar to what Majanja and Kiplang'at (2003) found out. The study shows that majority of

the women surveyed worked in state academic libraries and few of the respondents worked in private university libraries and public libraries.

#### **Occupational Characteristics of Women Librarians in Ghana**

All the women in the study were professionally qualified to be employed by the different libraries. Nine (9) of the respondents, which accounted for 33.3% had Master of Philosophy (MPhil) degree in Library Studies. Seven (7) of the respondents (25.9%), had Post-graduate Diploma in Library Studies. The number of women with Master of Arts (M. A.) degree in Library Studies was seven (7). This finding also corroborates the findings of Majanja and Kiplang'at (2003). Their statistics indicated that women librarians in Kenya possess high qualifications which compared favourably with those of their male counterparts.

Majority of the respondents, (15 or 55.6%), with varying qualifications were in the rank of assistant librarian position. Six had postgraduate diploma in library studies, four each had MA library studies and M.Phil library studies degrees. Two of the respondents were university librarians. It is interesting to note that none of the two ladies who were at the rank of university librarian had an MPhil qualification. Currently the MPhil is mandatory rising to the position of university librarian in Ghana's public university libraries. Obviously, the majority of the ladies need to take career advancement and development seriously in order to get to the apex of librarianship. Nine of the respondents (33%) had an MPhil degree of which four were at the assistant librarian grade. With this mandatory qualification, it is gratifying to know that it is just a matter of time for the respondents to rise up the professional ladder in a public university library.

The study revealed that fifteen (15) of the respondents were heads of their various sections. Ten (10) were heads of their libraries and two (2), university librarians. Being in a position of responsibility implies fair number of women librarians operate in decision-making roles. This finding is contrary to what Majanja and Kiplang'at (2003) found out from their study that; although women librarians have requisite qualifications to earn them higher positions, only a few held top positions. Their case may be attributed to the *glass-ceiling syndrome*.

#### **Perception of Female Librarians by Male Counterparts**

On the issue of whether the male counterparts of female librarians earned more for equal work done, the study revealed that, there was no discrimination. While an overwhelming majority of the respondents (96.3%) acknowledged that there was no discrimination, another 85.2% stated that their male counterparts saw them as their equals. In their study, however, Majanja and Kiplang'at (2003) reported that majority of the respondents observed that their pay package and other remuneration were not commensurate with work done. Similarly, Gregory and Ramirez (2000) expressed surprise that in 1999 in the United States of America, the average salary for women rose only to 5.2% while that of men leaped to 12%.

#### **Career Advancement**

The study shows that majority of the women had been sponsored for further training and still many of them had been sponsored to attend conferences or seminars or workshops. More than 75% of the women reported that their selection or non-selection for training or to attend conferences, workshops or seminars was not gender-biased. This shows that the employers do not put any obstacles in the way of the women librarians where career advancement is concerned. The study further revealed that gender was not an obstacle to going up the career ladder. Majority of the respondents (74.1%) admitted this. The researchers therefore conclude that for women librarians in Ghana, the proverbial *glass ceiling* is not an issue.

The researchers had thought that family responsibilities might be a factor that the women librarians might have to contend with in their career advancement, as Jones and Oppenheim (2000) found out in their study. This, however, turned out to be the opposite in the Ghanaian situation. A little over half of the respondents did not see family responsibilities as an obstacle to career development. It is interesting to note that 26 (96.3%) of the respondents, that is, indicated that they had children but only seven (25.9%) out of the twenty-seven respondents battled with family responsibilities and career advancement (See Table 2). Similarly, Majanja and Kiplang'at (2003) found that majority of their respondents indicated that family commitments did not interfere with job advancement.

**Table 2: Interference of Family Responsibilities with Career Advancement by Marital Status**

Marital Status	Interference of career advancement with family responsibilities			Total
	Yes	No	Don't Know	
Single	0	3	0	3
Married	6	14	3	23
Divorced	1	0	0	1
Total	7	17	3	27

### Conclusion

From the study it can safely be concluded that the status of women librarians in Ghana is under no threat, in terms of remuneration and position. Whether the female librarians advance in their career or not is entirely a decision of the professional women librarians themselves. There is a no external obstacle to the professional advancement of female librarians in Ghana. Any obstacle perceived could be self-imposed, as was found out in the study carried out by Jones and Oppenheim (2002). There is also no unfair competition in the workplace between the men and women. The status of women librarians in Ghana in terms of position, remuneration and career advancement opportunities is at par with that of their male counterparts.

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# The Challenges of a Modern Tertiary Education System: Paradigm Shifts for Educators and Information Professionals in Sub-Saharan Africa

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## Abstract

*The 21st century ushered in a new world order whereby the work place is asking for graduates who have acquired a strong intellectual framework for accessing information to create new things effectively. This calls for pedagogic restructuring in higher education and in particular the adoption of resource-based teaching and learning systems. The changing education landscape and the different formats in which resources are prepackaged have also ushered in new roles for academic librarians who are now actively involved in helping library users to acquire information literacy skills. Academic librarians are the chief instructors in information instructional programmes and serve as consultants on information issues and problems. Information professionals need to provide instructions on research methods and other areas that deal with incorporating information and communications technologies (ICTs) into learning.*

## Introduction

The 21st century is considered the age of information and knowledge; and it is expected that modern tertiary education systems in Africa would be consolidated

in the century. Increase in remote access to information has resulted in new, fast and effective ways of information access and delivery. Information can now be passed directly to the user through cyberspace without any intermediary. The world has consequently moved from the age of industrialisation to post-industrialisation. Human interactions and activities are no longer constrained by time and location. Information has become ubiquitous and readily provided to the learner, thereby fostering individual learning and making learners more innovative by deciphering information to build new products and knowledge. Information and the ability to convert it into knowledge has become the single most important factor and ability needed to progress in the social context of the 21st century. One important development of the information age is that it has heralded an era of individualised learning and at a time when an individual can really focus on developing his personal initiatives by using information effectively. It is a time of experimentation and exploration with information resources for the discovery of new meaning and ideas. The prevalence of information in different format excites the curiosity of the learner. As a learners experiment with information in different formats, they are able to develop their whole being and bring out the best in themselves. A holistic development of self is one of the greatest merits of the information age.

## The Needs of the Post-Industrial Age

The post-industrial age preference for versatility and innovation is posing a lot of competition in the world of entrepreneurship. Employers are no longer looking for graduates or employees with linear skills and trained only to perform a particular duty in one way. Rather, they are looking for employees who can accelerate growth in the workplace by applying their

talents to bring innovations, novelties and new measures to all aspects of work. People who can use information effectively to break old methods and introduce prosperous ones are gems in industries, and generally at the job market innovation and novelty in entrepreneurship have created a lot of competition. Consumers are checking information about the least expensive and best and demand the best. So entrepreneurs are pressured to produce the best at the least price if they are to survive under the present strong competition for consumers' favour (Reddy, 1997). This brings innovation and discovery to the heart of the competition. Information and the ability to develop it into new knowledge is the springboard for sustainable development in the information civilisation. As Castells (1993) rightly argues, "the most important infrastructure in the economy of our age is the human brain" and of course the ability to build new meaning out of it.

The most valued skill therefore is the ability to access, synthesise and build information into new knowledge. To meet this expectation, graduates have to be able to determine the needs of the work place, access the information needed, and be able to process the information to devise new things that will meet the needs of the work place. Graduates therefore need to acquire lifelong learning skills that will help them to continue to grow even outside the classroom. Such skills are acquired through an educational system that enables students to develop a set of critical thinking skills involving the use of information to create meaning. Building such skills requires interaction with real world information resources for information gathering and synthesis. This calls for the development of information literacy skills among tertiary institution students. The term "tertiary institution" as used in this paper refers to all post-secondary education systems, such as universities, polytechnics and teacher training institutions. Information literacy is described as the ability to "recognise when information is needed and have the ability to locate, evaluate, and use effectively the needed information." (Association of College and Research Libraries, 2000) Information literacy is therefore an important aspect of a modern tertiary education system in Sub-Saharan Africa.

## Challenges to Educators and the Learning Environment

The link made by entrepreneurs between job performance and skill development acquired at tertiary institutions exposed the inadequacies of traditional classroom teaching methods. It became evident to many educators that students are not adequately prepared for the job market and that they lack the ability for deductive reasoning and problem solving, particularly as it relates to their professions (Barrows, and Tamblyn, 1980; Braxton, Eimers and Bayer, 1996). While this is a global problem, the issue of irrelevant curriculum is very prevalent in Sub-Saharan Africa. The Association of African Universities (AAU) and the World Bank asserted that the curriculum of universities in Sub-Saharan Africa fail to expose students to "current knowledge and information relevant to labour market requirements" (World Bank, 1997). Similarly, a study of employment experiences of African graduates in ten African countries showed that a possible mismatch existed between educational opportunities and the job market (Mugabushaka, Teichler and Schomburg, 2003). This in turn may be the reason for poor job performance among graduates. As a result, the World Bank has consistently advised that educational systems in Sub-Saharan Africa be structured to meet the needs of market economies, with the learners acquiring high-level information-processing and problem-solving skills (World Bank, 2004). Educators are therefore rethinking pedagogy and reflecting on new methods that will help tertiary institutions to produce marketable graduates. Problem-based and learner-focused educational models are beginning to flourish. New curricular tools that shift from teacher-centred, traditional classroom teaching to student-focused and problem-based learning, enhanced with ICTs are being implemented (Stimson and Milter, 1996). Of the many reasons why the Alberta Advanced Education and Career Development promoted and implemented resource-based and learner-centred education enhanced by ICT, two reasons that stand out clearly are: to meet the needs of the job market and provide education for the increasing number of those who need post-secondary

education (Levin, 2001). For these reasons, many institutions in the U.S.A. and Canada as well as Europe have embraced ICTs and incorporated them into classroom instruction. It became necessary that tertiary institutions that wanted to be more productive and meet societal needs had to be more sensitive and adaptive to changing educational needs.

Learning, particularly in tertiary institutions, has therefore progressed from the closure system that operates from the traditional classroom where students and the teacher communicate and interact face-to-face to include virtual learning and problem-based learning. This was enhanced by global information networking systems, and of course, the ready availability of information resources through an array of formats. This has led to the proliferation of distance learning education systems as seen in franchised universities, virtual universities and several open-learning systems. Sub-Sahara Africa is not left out of the open learning systems. There are over 140 tertiary institutions in Sub-Saharan Africa offering correspondence courses employing virtual learning systems, print media, research methods and modular systems (Roberts and Associates, 1998). Because open learning systems have become popular, library resources are no longer confined to print-on-paper resources, as the library has to meet the needs of distance learning students and provide information resources through computer networks. Library resources have therefore become permeable and versatile just like the teaching and learning systems. Widely acceptable and favoured in the 21st century libraries are electronic resources which can be accessed through cyberspace or through offline systems where local area networks exist.

A student-centred and problem-solving learning approach using self-paced resources enable the customisation of learning and the impacting of specific skills to students. This approach enables students to direct their own learning while the teacher facilitates and guides them along the learning process. This system is flexible as students do not have to read the same texts or use the same resources in order to gain certain experiences and develop certain skills. There are a variety of approaches and a rich range of information sources students can tap to determine the learning activities. They are at liberty to determine their own approach, based on the needs, interest and talents. The information dependency approach of the traditional classroom whereby the teacher is an

embodiment of knowledge and simply dispenses it to the student is no longer relevant to today's needs. The backbone to this learning method is the availability of information resources in a variety of formats and the availability of seasoned information professionals who are ready to teach, nurture and assist students in the use and application of resources. This is the way to achieve lifelong learning and the development of information literacy skills. The end product is not a mass production but the production of people educated in very different ways, unique to them but with the same result – confident graduates with critical thinking skills and each person with his own unique specialty. The graduate is then an original product designed to contribute his special and unique skills to societal development. This is achievable in a resource-based and problem-solving learning environment where both students and educators have a good understanding of the world of information and the new ways by which information resources are pre-packaged, accessed, applied and disseminated.

Pedagogical practices that are resource-based, active and focus on the needs of the students help them to develop an attitude for investigation and problem solving. Project-based assignments that will encourage students to experiment with a wide variety of real world information sources be introduced into the learning scenario. As students explore these resources, they readily acquire the ability for seeking, evaluating and managing information gathered from multiple sources. Pedagogic restructuring that incorporates real life information sources into the system will introduce students to the kinds of information practices that will support entrepreneurship advancement and community development. The American Library Association (ALA) agrees that such pedagogic restructuring will help students to develop research capabilities and encourage them to frame research questions and creatively explore information sources and resources to find answers to the questions they have generated.

Studies on the application of resource-based curriculum indicate that resource-based approach support the development of deep-level processing in students, as they have to apply ideas from information resources to make meaning and apply that to the problems they are solving (Camp et al., 1992). As a result, students in a resource-based learning system demonstrate better problem solving skills than their counterparts in traditional curriculum

(Vernon and Blake, 1993). As self-directed learners define their own learning needs, they readily get acquainted with information resources and develop the skills to assess and evaluate the resources in terms of their own needs. These abilities and skills prepare them for lifelong learning (Candy, 1991). Indeed, the literature on higher education pedagogy in the present information environment gives a central role to resource-based, problem-solving and self-directed learning. The paradigm shift is from teaching to learning (Levin, 2001)

### **Challenges to Information Professionals**

Information workers face unprecedented challenges in the rapidly evolving environment of networked information, information explosion, remote access, and the fast growing needs to help users to use information effectively. While the abundance of information resources is a blessing, it is sometimes a frustration to library users. Information explosion, complexities in information packaging and access, unfiltered information, and the need to develop a stronger intellectual framework for using information effectively make the library user heavily dependent on the skilful assistance of information professionals in their search for relevant information seeking. In addition, changing approaches to teaching and learning and the demands of employers for information-literate graduates all pose challenges to library services and offer new paradigms and roles for information professionals. The 21st century learning scenario of rapid access to information, computer literacy and interdisciplinary applications and boundless learning (Evans, 2001) requires that learning progresses from textbooks to integrating technology into it. The library plays a central role in building the new teaching and learning environments for both teaching staff and students.

Library staff need to collaborate with teaching staff in incorporating electronic resources and emerging technologies into instructional delivery such that content information, technology and active learning blend together to facilitate the enhancement of critical thinking skills and active information management. The value of information service therefore, in the present information dispensation, is not in possessing information but in providing access to it, and more importantly, in developing the organisational and technological capabilities in the

end-user to be able to identify, access, sift and determine the authenticity and validity of information. Consequently, the librarian no longer necessarily plays the traditional roles of selecting, organising and disseminating information (Saint, 1999). The end-user now assumes those roles. The library building becomes a laboratory for information processing and lifelong learning centre. Access to information is no longer restricted to the building. The library therefore needs to equip end-users with information management skills by providing information literacy programmes.

### **Information Literacy Education**

The purpose of information literacy (IL) education is to help students to develop critical thinking and analytical skills which they will need for transforming information into knowledge. IL instruction may be approached from different dimensions: course-related library instructions; course integrated projects; online tutorials and stand alone courses (Spitzer, Eisenberg and Lowe, 1998). The best approach, however, is that which integrates IL into the curriculum (Association of College and Research Libraries, 2000). Whatever type is adopted, the IL instructions should be customised to meet the mission of the institution and the needs of the students (Kasowitz-Scheer and Abby-Pasqualoni, 2002). Since IL skills are built upon, the instructions should not be generalised, otherwise the instructor may be repeating what the students already know. Rather, it should be based on actual users' IL needs which should be identified through an IL needs assessment. IL instructions should help students to develop an intellectual grasp of information selection, database searching and Internet sources evaluation. The instructions, whether online or classroom-based, should be interactive and incorporated with sound, graphics and text to create adequate and active learning experiences for maximum benefit. Information professionals should realise that many first-year students in universities in Sub-Saharan Africa lack good library background. In fact, majority of them come from secondary schools where no organised libraries exist. Because of this, they lack adequate library culture. IL programmes for such groups should be intense and comprehensive, beginning from level one and up to the highest level. It should be emphasised, however, that effective IL training is that which is integrated into the curriculum

so that students continue with IL training in all their curriculum exposure. Aspects of research methodology skills that deal with using print and electronic information resources, competency skills in information retrieval, and evaluation of Internet and Web sources can be assigned to and taught by the information specialists. This inter-disciplinary collaborative approach will help students to develop adequate skills in information management. The information professional, in collaboration with the teaching staff, can also provide guidance to students on how to conduct effective resource-based assignments for students, and provide Web-based IL instructions for distance-learning students.

### **Library Resources**

Self-directed and lifelong learning system is the preferred learning system of the present age. Library resources should foster independent, self-paced and more distributed learning. Electronic resources that are available in a network environment and can be accessed remotely will help students to learn independently and at their own pace. Interactive and multi-sensory resources, such as, videotapes, videodiscs, CD-ROM, software tools, simulation/modelling tools and multimedia resources could enable students to interact with sound, graphics, language and inventions. They are able to sharpen their creativity skills as they see the relational link between text, graphics and sound. While handheld books are easy to use, they lack the interactive and multi-media looks of electronic resources and do not in any way help students to develop their skills to the fullest. Students and educators should be encouraged to integrate print and electronic resources in their teaching and learning activities. Information resources in all formats with adequate depth and quantity need to be provided. It should be made compulsory for the information professional to provide access to outside collection. There are several initiatives that are providing access to academic resources free of charge or at highly subsidised rates. This way, the library will be able to support a resource-based learning system and also help library users to benefit from the growing and rich world of information.

### **Library Training**

If structural changes in the society require lifelong learning in order to participate in the functioning and

development of society, librarians should be the first to acquire lifelong learning skills in order to help members of the society adjust and acquire these much-needed skills. They therefore require significant levels of new training to prepare them for their enhanced roles as 21st century managers of information and teachers of information literacy skills. An information professional must equip him/herself with a high level of technological skills for accessing and manipulating information for lifelong learning and for imparting lifelong learning skills.

Library schools need to produce graduates that can face the challenges of the evolving information civilisation. Their curriculum should be constantly reviewed and enriched with content that will help students in library schools to acquire adequate skills to effectively handle the information needs of today's information users. Unfortunately, many of the present products of library schools lack the essential skills needed to function effectively as information specialists and consultants in the information environment.

### **Challenges to Sub-Saharan Africa and Tertiary Education**

The high illiteracy level and the low enrolment in tertiary education across Sub-Saharan Africa is a hindrance to the acquisition of IL skills. A literate person of the 21st century society needs to be technologically skilled and develop the ability to analyse information. These skills are most likely to be acquired at the tertiary level of learning. According to the recent statistics (UNESCO, 2002) only about 60% of adults in Sub-Saharan Africa have basic literacy – a prerequisite for the acquisition of IL skills. Out of that 60%, only about five percent (5%) are in higher education. A lower enrolment in tertiary education implies a lower number of those who will acquire IL skills. This may deprive the continent from the knowledge building community.

If graduates are to possess the qualities mentioned and meet the challenges posed to them, their teachers must show the example by incorporating ICTs into their teaching and research activities. Bale (1999) suggests that "the sages on stage" must be positive role models for students and use ICTs so that their students can emulate them. Recent theories imply that teachers' information



seeking behaviour has a great influence on those of their students (Herrmann, 1996). Teachers therefore need to acquire information literacy skills (IL) and technological competence in order to access and use effectively the complex and varied information tools of the present age. While IL is not a pre-requisite to learning, it is however a requirement for actualising what has been learnt in the age of ICT dominated by computer networks, databases and telecommunication systems. It is indirectly the skills needed for effective development and economic advancement in any society. Societies where the learning environment is not conducive to the acquisition of IL skills face the danger of disenfranchisement from economic and social acceleration.

While the business sector has embraced ICT to a greater extent in their functions, the tertiary education sector is still very slow at embracing change in a learning environment where making meaning out of information is the norm. The traditional chalk and blackboard teaching using prepackaged textbooks is still predominant in many universities in Sub-Saharan Africa. Multimedia and electronic resources are sparingly employed in the teaching and learning process because many of the teachers lack the competence to handle different types of information tools, networks and other forms of digital information. A curriculum based predominantly on textbooks will not help students to develop adequate interactive and creativity skills as books do not interact. A pedagogic change, however, from the traditional chalk and board system to a more innovative, versatile, problem and resource-based learning systems that challenge the learner to interact and experiment with a variety of information packages will motivate students to explore and interact with different forms of resources. Multimedia resources, in particular, are known to foster independent learning, gateway to lifelong learning. Besides, there is need to reach a more globally-spread student body through virtual learning, and print resources cannot do that adequately. Resources that are accessible through multiple paths, as in electronic resources can circulate to a wider audience without the constraints of time and space. This may be a solution to providing access to the increasing number of high school graduates who are seeking admission into tertiary programmes.

Educators should employ a Relationship Management Systems approach (RMS) (Papows,

1998) to study the job market, and comprehend job market needs and integrate it with students' needs as they design the curriculum. This will enable educators to design educational systems that are productive and meet the needs of the evolving knowledge society. Quite often, curriculum of Sub-Saharan African tertiary institution is found to be outdated and far isolated from societal developmental agenda. A scientific approach for determining labour market needs will endure that functional and a relevant curriculum is drafted and implemented.

Regular workshops that teach educators how to use modern information resources should be conducted. Educators need to be acquainted with the modern ways by which information is packaged, delivered and accessed. They need to know what is available in the world of information and the challenges they pose to students. An awareness of these will help in restructuring the curriculum with practical and realistic experiences that will help students to acquire the skills to use information effectively. As it is in many universities in Sub-Saharan Africa, many educators lack the skills to access information on the Web and use offline electronic information sources. They have not come to grasp with the realities of the knowledge environment. If education planners are well informed of the changes in the world of information, they can be a formidable group in promoting information literacy among their students and thereby bridge the digital divide which is largely caused by educational systems that do not challenge students to explore the world of information.

## Conclusion

The global knowledge-based economy and the need for graduates to acquire lifelong learning skills in order to remain competitive in the job market are dictating new rules for pedagogy and library services in tertiary educational institutions in Sub-Saharan Africa. While these challenges are exciting, the remodelling of the traditional classroom-based instruction with technology as an enhancement, as well as adopting a resource-based, problem-solving instructional system are essential. This requires that teaching staff and librarians engage collaboratively in the design and implementation of the instructional system. Pedagogic restructuring and the practice of resource-based education system with a modern library

equipped in both human and material resources will help universities in Sub-Saharan Africa to address the problems of declining education quality, irrelevant curriculum and the provision of relevant tertiary education to the rising number of high school graduates. This will not only produce a larger educated class, but people who have acquired advanced intellectual framework for transforming information into innovation and discoveries.

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# A Survey of Information Sources Used by Secondary School Students in Ogun State, Nigeria for Knowledge and Attitudes towards HIV/AIDS

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## Abstract

*Provision of accurate information has and will continue to be at the forefront of efforts to prevent HIV transmission and develop positive attitudes to people living with AIDS. Thus, this study investigates the knowledge and awareness about sexually transmitted infections, the general belief and attitudes related to HIV infection and persons with AIDS among secondary school students in Ogun State, Nigeria. The study was carried out between September and December 2004. A questionnaire with questions on sexually transmitted infections, self-assessed knowledge about HIV/AIDS modes of transmission and prevention, attitudes toward people with HIV/AIDS and sources of information on HIV/AIDS was administered. The mean age of participants was 15.5 years. The respondents demonstrated good knowledge on general belief, mode of transmission and precautionary measures against HIV. But few had misconceptions especially on modes of transmission. The proportion of respondents that demonstrated intolerant attitudes*

*towards people living with HIV/AIDS ranged from 22.2% to 50.8% for the various questions which expressed stigmatising attitudes. The main sources of information for AIDS awareness as reported by the respondents were the radio (77.1%), bill boards/posters (73.4%), and television (66.4%). School teachers (22.6%), churches/mosques (20.9%), libraries (11.8%) and Internet (10.5%) were the least sources of information used. The results suggest that more information towards people living with HIV/AIDS awareness programmes are needed in secondary schools in Ogun State to correct their inadequate knowledge on modes of transmission knowledge, and develop positive attitudes among students towards HIV positives and AIDS patients. The paper recommends that the mass media, having been identified as the leading information sources need to implement innovative strategies to improve public knowledge of HIV/AIDS. The roles that teachers and librarians could play in the delivery of information on reproductive health education to promote awareness on HIV/AIDS and other sexually transmitted diseases are also highlighted.*

## Introduction

Acquired immune deficiency syndrome (AIDS) is caused by HIV (human immunodeficiency virus), which intrudes into a human body, attacking the immune system (the body's defence against infections/diseases). The virus weakens the immune system as it replicates, thus opening the way for many opportunistic infections such as tuberculosis, diarrhoea and pneumonia. AIDS marks a severe development crisis in Sub-Saharan Africa, the worst affected region in the world where its effects have

superseded that of war, drought, famine or any other emergencies in magnitude, duration, and challenge (Ogunbodede, 2004). The socioeconomic implications of HIV/AIDS in Africa include increased poverty and hunger, and increased vulnerability to diseases and deterioration in the education system. The African AIDS epidemic is randomly distributed between the sexes and is not restricted to behavioural risk groups such as commercial sex workers and their clients, in sharp contrast to its North America and European counterparts (Papadopoulos and Turner, 1995).

According to the statistics released in December 2005, the estimated number of HIV/AIDS cases had risen from approximately 10 million in 1990 to 40.3 million in 2005, of which 25.8 million people (64%) are in Sub-Saharan Africa. This is despite the fact that the people in the region are just a little over 10% of the world's population (UNAIDS, 2005). Also approximately 4.9 million new HIV infections occurred globally in 2005, of which 3.2 million (65%) were in Sub-Saharan Africa. Of the estimated 3.1 million AIDS death in 2005, 2.4 million or 77% were in Sub-Saharan Africa (UNAIDS, 2005).

The estimated number of people living with HIV in Nigeria was 3.3 million adults or 5.4% of the adult population (UNAIDS 2004), being the country with the third highest number of HIV cases in the world, preceded only by South Africa and India. It is estimated that 60% of new HIV new infections in Nigeria occur among those between the ages of 15 and 25 years (USAID, 2003). Alubo (2002) reports that in some tertiary facilities in Nigeria, as many as 10 to 15 persons with full-blown AIDS are admitted weekly, and that the HIV prevalence is up to 30% among some "high-risk" groups. The National Intelligence Council (2002) listed Nigeria along with Ethiopia, Russia, India and China as the five countries anticipated to fuel the continued pandemic of HIV/AIDS, and that the epidemic is most advanced in Nigeria and Ethiopia where risky sexual practices are driving infection rates up at a precipitous rate. Despite these frightening statistics for the African continent, there is relatively little research on HIV/AIDS in Sub-Saharan African countries, compared to other regions of the world. Ogunbodede (2004) reports that of the 140,736 scientific publications on HIV/AIDS from 1981 to 2000, only 6,569 or 4.7% are directly related to Africa. Though the governments in Africa are looking for effective

strategies to deal with the HIV/AIDS epidemic, political leaders in many countries have failed to demonstrate the leadership needed to raise AIDS awareness among their people. Heterosexual contact is overwhelmingly the primary route of spread, accounting for as much as 90% of all HIV positive cases (DeKock et al., 1994). Individual behavioural change, particularly sexual behavioural change, appears to be the most effective means to prevent further AIDS/HIV spread under the current situation in Africa.

A review of literature on sexual behaviour of school-based young persons aged between 14 and 24 years in Sub-Saharan Africa published between 1987 and 1999 indicate high prevalence rates of sexual intercourse, infrequent use of condoms and other contraceptives, and significant proportions of adolescents who have two or more sexual partners (Kaaya et al., 2002). Slap et al. (2003) found that from a sample of 2705 students in Plateau State of Nigeria, 34% reported having had sex, with over 50% of them having had multiple sexual partners; and that the mean age of sexual initiation among the students was 14.8 years. Orji and Esima (2005) in a recent study of sexual behaviour and contraceptive use among secondary school students aged 13 – 19 years in a part of South-West Nigeria concluded that 50% of them were sexually active, with 68.7% having multiple sexual partners, while 87.7% of them did not use contraceptives at sexual debut.

A wide gap exists between HIV infection-seroconversion and the development of AIDS. Morgan et al. (2002) estimated the median time from seroconversion to AIDS at 9.4 years, while a short median time of 9.2 months exist from AIDS to death. Thus, HIV moves through a population giving little sign of its presence due to the long latent period between HIV infection and development of AIDS. Consequently, most HIV positive individuals look healthy and most people in Africa do not know their HIV status due to limited voluntary counselling and testing. In the absence of a cure for HIV and the inaccessibility of the retroviral treatment to majority of the infected people due to the high cost, public education and prevention remains the mainstay of interventions against the spread of HIV. Kings (1983) propose that the ways people interpret the cause of an illness would influence belief about the illness and thus affect behaviour. Thus, a comprehensive understanding of knowledge of, and attitudes to HIV/

AIDS is essential to the design and implementation of appropriate intervention strategies.

Adequate knowledge of HIV and its mode of transmission and access to relevant services and supplies could give the confidence to initiate sustainable social behavioural changes that will lead to the avoidance of risky practices (Gupta and Weiss, 1993). In Uganda, a range of complementary messages and services delivered by the government and non-governmental organisations have led to key behavioural changes, including fewer Ugandans having sex at younger age, increased level of monogamy and the rising rate of condom use (Cohen, 2004). The HIV/AIDS scourge in sub-Saharan Africa has to be viewed as a regional emergency that requires multisectoral efforts to achieve a common goal, which is reversing the deadly march of the virus in the continent. It is important to have current information on the sexual knowledge, attitudes and behaviour of the school-going adolescents before deciding on the adequacy or modification to the existing awareness campaign strategies.

The objectives of the study were to:

- evaluate the knowledge of students in selected secondary schools in Ogun State, Nigeria on sexually transmitted infections, transmission routes and prevention strategies against HIV/AIDS;
- investigate the perception/attitudes of these students to those people with HIV/AIDS; and
- determine the sources of information through which these students learn about HIV/AIDS.

## Methodology

The study was carried out from September to December 2004. Six out of the 20 local government areas in Ogun State, Nigeria were randomly selected, such that three of them (Abeokuta South, Ijebu North and Ijebu Ode) were in the urban areas while the other three (Imeko, Odeda, Yewa North) were in either semi-urban or rural areas. Thereafter, 16 secondary schools were selected by stratified random sampling to ensure that selection was made from all the six local government areas. The researchers established a cooperative relationship with the schools and obtained necessary approvals from the school administrators. Students were

randomly chosen in each school from various classes. Those students that volunteered were given copies of the questionnaire designed for this study to complete. To prevent students from influencing each other's responses, data collection in a school was completed in one day.

**Table 1: Number of Schools and Students in each Local Government Area**

Local Government Area	No of schools	No of students	Proportion
Ijebu Ode	3	346	24.6
Abeokuta South	3	290	20.7
Imeko	2	228	16.2
Ijebu North	2	187	13.3
Yewa North	4	205	14.6
Odeda	2	148	10.5
Total	16	1404	100.0

The questionnaire was developed based on a review of literature on the subject (Davis et al., 1998; Brooks, 1999; Ugan and Yaman, 2003) and comprised of sections on demographic information, knowledge of sexually transmitted infections, knowledge of AIDS, attitude towards AIDS, methods of preventing or reducing the risks of HIV transmission, and sources of HIV/AIDS information. The drafted questionnaire was evaluated for comprehensibility and acceptability by a group of scholars in the Faculty of Education, Olabisi Onabanjo University, Ago-Iwoye, Ogun State, Nigeria. A pilot testing of the questionnaire was further carried out on twenty secondary school students in Ijebu-Ode, Ogun State with the aim of reframing or deleting unclear, misleading or very sensitive questions. Those students that participated in the pilot testing were not included in the final study. The participants were assured of the confidentiality of information provided.

On the students' knowledge of sexually transmitted infections, a list of six infectious diseases were listed: HIV/AIDS, tuberculosis, pneumonia, gonorrhoea, typhoid and syphilis, and the students were asked to tick those diseases that could be sexually transmitted. Next, the students were asked to indicate their own self-assessment of their knowledge of

HIV/AIDS as either, "much, moderate, low or knows nothing".

The students' general knowledge on modes of transmission of HIV was measured by requesting them to provide "Yes, No, or I don't know" responses to various statements on general beliefs and different modes of contracting the virus. The students' attitudes towards persons infected with HIV/AIDS was also assessed by requesting them to respond as either "Yes, No or I don't" know to six statements which expressed stigmatising or positive attitudes towards the HIV/AIDS.

To assess students' knowledge of strategies of controlling HIV/AIDS, the students were required to write the various precautionary measures through which the risks of HIV infection could be reduced. In respect of possible sources of information on HIV/AIDS, respondents were provided with a range of possible sources through which HIV information could be disseminated, and they were required to tick the ones that applied to them.

## Findings

One thousand, six hundred and thirty-three (1633) students completed and returned the questionnaire. After scrutiny, 229 copies which were not properly completed were discarded, thus 1404 or 86.0% were used for the analysis. The distribution of students in the various schools who completed questionnaires and were included in the analysis are presented in table 1. The mean age of the students was 15.5 years, and their ages ranged between the ages of 12 to 21 years. The study comprised 846 (60.3%) boys and 558 (39.7%) girls. Seven hundred and fifteen (715)

respondents were in junior secondary schools, while the remaining 669 students were in senior secondary schools.

## Knowledge of Sexually Transmitted Infections

The results of the analysis indicate that all the students that responded were aware that HIV/AIDS was a sexually transmitted infection, 1196 respondents (85.2%) were aware that gonorrhoea was a sexually transmitted disease, while 883 (62.9%) knew that syphilis was sexually transmitted. Less than three per cent of the respondents had the misconception that tuberculosis, pneumonia and typhoid could be transmitted sexually.

## Self-Assessed Knowledge of HIV/AIDS

Of the 1390 respondents that rated of their knowledge about HIV/AIDS, 309 students (22.2%) considered themselves as having much knowledge, while majority of the students 876 (63.0%) indicated that they had moderate knowledge. A significant number of the students 205 (14.8%) declared that they had low knowledge while none claimed having no knowledge about HIV/AIDS.

## General Knowledge of HIV/AIDS

The results in table 2 show that majority of the students, (77.8%) correctly identified HIV as a virus infection. About 85.5% knew that AIDS could not be cured, and 75% knew that there is currently no vaccine for HIV. Approximately 90% of the students were also aware that HIV-infected persons usually looks healthy. It is also noteworthy that the proportion of respondents that had the correct knowledge that HIV/AIDS is not caused by witchcraft/sorcery was 95%.

Table 2: General Beliefs about HIV/AIDS

Statement	Yes		No		Don't know		Total (n)
	No.	%	No.	%	No.	%	
HIV/AIDS is a virus infection	1084	77.8*	285	20.5	24	1.7	1393
HIV/AIDS is caused by witchcraft/sorcery	58	4.2	1305	94.9*	12	0.9	1375
HIV/AIDS is a hereditary disease	92	6.7	1280	92.6*	11	0.8	1383
HIV-positive individuals usually look healthy	1272	91.2*	115	8.2	08	0.6	1395
HIV/AIDS can be cured	186	13.5	1189	86.2*	05	0.4	1380
There is a vaccine for HIV/AIDS	318	23.1	1033	75.2*	23	1.7	1374

\* Correct responses

n = indicates number of participants that responded to various statements

### Knowledge of Routes of HIV/AIDS Transmission

The results presented in table 3 show that majority of the respondents correctly identified the major routes of transmission of HIV i.e. through sexual contact with infected persons in which all answered Yes, while 85.7% identified having multiple sexual partners as a means of HIV spread. Approximately 90% of the respondents recognised the spread of HIV by receiving blood of an infected person, while 77.3% and 72.4% mentioned unsterilised needles and dental equipments, respectively, as potential sources of HIV spread. The other means of spread which were less known to the respondents were mother-

transmit HIV. It is pertinent to point out that co-occurrence of accurate and mistaken information on transmission routes existed among the students, i.e. some of those that had misunderstandings on the mode of transmission were from those that correctly identified documented modes of transmission.

### Attitudes towards Persons with HIV/AIDS

The findings on the students' attitudes shown in table 4 indicate that up to half of the respondents indicated that they could not put on cloth/sweater that HIV-positive persons used previously. Also, 48.8% would not be willing to eat in a clean plate/ drink from the same cup that had previously been used by an HIV

Table 3: Knowledge of the Mode of Transmission of AIDS/HIV

statement	Respondents' Answers			Total (n)
	Yes	No	Don't know	
Mode of transmission:				
Sharing toilets with infected person	326(23.4 %)	1051(75.3 %)*	1069(76.4 %)*	1396
Kissing or holding an infected person	72(1.6 %)	1303(93.7 %)*	15(1.1 %)	1390
Sex with an infected person	1401(100 %)*	-	-	1401
Sharing food utensils/food with an infected person	407(29.5 %)	817(59.2 %)*	157(11.4 %)	1381
Through multiple sexual partners	1198(85.7 %)*	135(9.7 %)	65(4.6 %)	1398
Through sharing cigarettes with infected person	321(23.4 %)	850(62.0 %)*	201(14.7 %)	1372
Bite of a mosquito	391(28.0%)	938(67.3 %)*	65(9.7 %)	1394
Swimming pools	254(18.5 %)	1144(75.9 %)*	78 (5.6 %)	1376
Exposure to infected person that cough or spits	123(8.8 %)	1240(88.9 %)*	32(2.3 %)	1395
Unsterilised dental equipment	995(72.4 %)*	208(15.1 %)	172(12.5 %)	1375
Through tribal marks/tattooing	828(59.7 %)*	402(28.9 %)	136(9.8 %)	1388
Wearing cloths of an infected person	268(19.2 %)	1069(76.4 %)*	62(4.4 %)	1399
Receiving blood of an infected person	1264(90.2 %)*	129(9.2 %)	08(0.6 %)	1401
Unsterilised needles	1089(77.3 %)*	294(21.1 %)	12(0.9 %)	1395
Infected pregnant woman can infect unborn baby	1018(72.6 %)*	299(21.5 %)	75(5.4 %)	1392

\* Correct responses

n = indicates number of participants that responded to various statements

to-child transmission during pregnancy and during breast feeding by an infected mother of which 21.5% and 27.3% wrongly answered. The findings also revealed few misconceptions in the knowledge of the students in the mode of spread: 29.5% on sharing food utensils, 28% on bite of mosquitoes and 23.4% on sharing of cigarettes agreed that these ways could

positive person. A considerable proportion of the respondents (41.1%) had the negative attitude that HIV infected pupils should be dropped from going to school, 40.2% believed that HIV- positives should not be allowed to continue work, and 35.5% signified that they would terminate their relationship with a friend that has been diagnosed of having HIV.



**Table 4: Attitudes related to Persons with HIV/ AIDS**

Statement	Respondents' Answers			Total (n)
	Yes	No	Don't know	
HIV- positive peoples' name should be made public	494(35.6 %)	877(63.3 %)	15(1.1 %)	1386
HIV -positive students should be dropped from school	573(41.1 %)	778(55.7 %)	45(3.2 %)	1396
HIV- positive people should be quarantined	313(22.5 %)	1064(76.6%)	12(0.9 %)	1389
HIV- positive people should not be allowed to continue working	561(40.2 %)	805(57.7 %)	28(2.0 %)	1394
I'll end friendship with a friend diagnosed of having HIV	492(35.5 %)	897(62.2 %)	09(0.6 %)	1398
I could not to eat/ drink from a clean plate/glass cup previously used by HIV-positive person	684(48.8 %)	696(49.7 %)	21(1.7%)	1401
I could wear cloth/sweater previously used by an HIV-positive person	698 (50.8%)	648(42.0%)	31(2.3 %)	1394

n = indicates number of participants that responded to various statements

### Preventive Measures

On the precautionary measures that could be taken to prevent the risk of HIV transmission (table 5) 88.9% of the respondents mentioned abstinence from sex, followed by the use of condom (83.8%), mentioned avoidance of sex with commercial sex workers (74.3%). Having one sex partner was mentioned by about two-thirds of the respondents. Other correct precautionary methods cited by the respondents include not sharing needles/syringes, using sterilised needles, screening blood for HIV before transfusion, and getting adequate information on HIV/AIDS.

**Table 5. Respondents' Knowledge of Precautionary Measures to Prevent HIV/AIDS (N = 1247)**

Preventive measures	Number	%
Abstain from sex	1108	88.9
Use condom for casual sex	1045	83.8
Avoid having sex with prostitutes	926	74.3
Have one sex partner	817	65.5

### Sources of Information

The findings on sources of information about HIV/AIDS in table 6 indicate that radio (77.1%) was the most used source of information, while boards/posters ranked second (73.4%), followed by television (66.4%). Friends were cited by 54.4% of the

respondents as an important avenue for obtaining information on HIV, while approximately one third of the respondents cited health workers, hospitals, newspapers and family members as sources of HIV information. School teachers (22.6%), churches/mosques (20.9), libraries (11.8%) and the Internet (10.5%) were the least important sources of information about HIV.

**Table 6. Ranked list of Sources of information on HIV/AIDS (N=1404)**

Source	Number	Percentage
Radio	1083	77.1
Bill boards/posters	1031	73.4
Television	932	66.4
Friends	764	54.4
Health workers	475	33.8
Hospitals/Health centres	473	33.7
Newspapers	451	32.1
Family members	448	31.9
School teachers	318	22.6
Churches/Mosques	293	20.9
Libraries/librarians	166	11.8
Internet	148	10.5

## Discussion

HIV/AIDS is a public health problem due to the complex, emotional, behavioural and psychological complications associated with it. The only way to attack the disease which presently has no cure is by prevention. Thus, the best way to accomplish the latter is through education. Since studies have shown that more than half of Nigerian secondary school students are sexually active and that that over half of this group engage in risky sex practices (Orji and Esima, 2005; Owolabi et al., 2005), it is important that the students be taught how to protect themselves against the disease.

It has become very important to raise the level of knowledge and awareness related to HIV/AIDS and its mode of transmission, using all information dissemination channels at our disposal. Particularly in low-income countries such as Nigeria, where poverty and ignorance are widespread, a great deal of effort is required at spreading the message. Unlike in the Western countries where the HIV/AIDS is restricted to those in certain risky groups, the virus has found its way into the general population in Sub-Saharan Africa.

The responses to the questions on mode of transmission shows that majority of the students were aware of the routes through which HIV is spread, i.e. by sexual contact with infected person, multiple sexual partners, and by using unsterilised equipments. However, the respondents had few misconceptions. Misconceptions and inaccurate knowledge on the modes of transmission of HIV/AIDS are key factors hindering the prevention of the virus (Johnston and Hopkins, 1990). The misconceptions about HIV mode of transmission have potential implications for risky perception and behavioural change. Thus, reliance on the fact that a high percentage of the students know the documented modes of transmission without considering their level of knowledge on the non-documented means of transmission might lead to erroneous conclusion on the desirability or otherwise of further interventions. Misunderstandings on transmission routes could result in a feeling of helplessness to the extent that no change is made in behaviour e.g. having inaccurate knowledge that mosquito bites could transmit HIV. Also, incorrect beliefs could foster fear and discrimination, leading to further discriminatory behaviour towards people infected with HIV/AIDS. It is therefore

recommended that educational efforts should promote awareness of both documented and undocumented transmission routes so that individuals will be able to use the complete information to accurately assess their risky behaviour.

The most important sources of information on HIV/AIDS mentioned by the students were radio, posters and television. That the radio is the leading source of information on HIV is to be expected since most homes in Nigeria have access to radio receivers, and even those in rural areas without electricity use battery operated transistors (Brieger, 1991).

Discriminatory attitudes towards AIDS may have a negative effect on willingness of people to be tested to know their status, and many that test positive may hide the information from their partners for fear of discrimination. These results point to the need for education about the disease on the importance of maintaining the dignity of the AIDS patient, mutual support and the benefit of friendship to AIDS patient.

### The Use of Mass Media in the Provision of HIV/AIDS Information

This study has identified radio, posters and television as the major channels through which HIV/AIDS information get to school-going children, justifying that media HIV/AIDS prevention campaigns should be encouraged. That there are still gaps in the knowledge of the students indicate the need for improvement in the services rendered by these information channels. The examination of most posters and leaflets in circulation shows that they are not always up to date, and the messages are often not clearly presented. However, the fact that the messages get to large proportion of youths as shown by this study calls for improvement in their production to better serve in presenting clear and current information on HIV to the people.

Chapin (2000) notes that television has become so influential that it serves as a teacher to young adults, providing a common source of information to them. However, the mass media particularly, television may be exhibiting double standard by constituting a barrier to addressing HIV issues through the presentation of movies, music and images that arouse sexual feelings, thus contributing to the high rate of sexual activity among youths. Thus, the media will need to rigorously censor films shown to the public on television stations and promote those films that

could break down resistance to risky behaviour.

Furthermore, the ability of media to give detailed and accurate information is questionable. A recent survey among journalists in Ibadan, the second largest city in Nigeria, found that only 25.5% of them had received training on HIV, a significant proportion of them had misconceptions on transmission and preventive methods, and many had negative attitudes to HIV/AIDS positive people (Isibor and Ajuwon, 2004). Thus, media houses in Nigeria have concentrated on presenting the devastating effects of HIV, which create fear and anxiety, with little attention given to education of the public on how they could prevent infection. It is recommended that journalists should undergo training on HIV/AIDS, and be continually educated through participation in workshops on HIV/AIDS, and not just serving as reporters at workshops. The media houses need to collaborate with non-governmental organisations and ministries of health to get updated information on HIV/AIDS, which they could regularly present to the public. Another avenue that the media houses could employ to get reliable materials for the public is through engaging the services of health professionals who could extract authoritative and current information from the varied sources available on the subject from the Internet.

The mass media could also mount entertainment programmes in the form of dance, drama and music to educate people on HIV. A study carried out in Zimbabwe showed that adolescents that watched television programmes that emphasised abstinence and condom use were 47% and 87% more likely to abstain from sex and use condom, respectively, than those not exposed to those programmes (Underwood, 2001). Overall, the mass media in Nigeria will need to devote more attention to presentations on HIV/AIDS issues as it is done with political and economic matters.

#### **The Role of Teachers in Information Provision on HIV/AIDS**

Discussions on sexuality and reproductive health matters are often restricted in schools due to the belief that such talks could lead to increased level of immorality. However, two extensive reviews found that reproductive health education in schools do not result in increased sexual networking, but that it rather resulted in delaying time of first sexual intercourse and in increased use of contraceptives among those

that were sexually active (Grunseit et al., 1997, Kirby, 2001).

Teachers and family members constitute the two important adults that school-going youths interact with daily, which they also rely on for provision of accurate information. Thus, in this era, it has become expedient for teachers to play the role of information providers to students as well as providing a source from which students could ask questions and express their thoughts and ideas. Previous research found that teachers have not been receiving adequate training and motivation on information, education and communication for HIV/AIDS sex education (Oshi et al., 2005). It has been also reported that teachers, even when they have reasonably high knowledge of the modes of HIV transmission, the behavioral-risk factors and modes of prevention, were reluctant to teach these topics because of socio-cultural and religious factors, lack of teacher training in delivery of sex education, as well as poor motivation (Oshi et al., 2005).

The quality and intensity of delivery of curriculum and strategies for teaching have to be high before it could have positive impact on young adolescents. Training can be accomplished by organising workshops, in-service training and group discussions on HIV/AIDS for teachers. The Ministry of Education must also commit its efforts to the provision of training to teachers, curriculum development and the provision of adequate teaching aids. A study in Soroti district of Uganda (Shuey et al., 1999) found that students of age 13 to 14 whose teachers were exposed to training on reproductive health matters, two years after baseline survey, reported significant decrease in having sexual intercourse in past months and in the number of sexual partners in contrast to the control group whose teachers did not undergo the training. WHO (2001) has developed briefing kits, which could be used in organising workshops for teachers on sexually transmitted infections. It offer various participatory strategies on provision of basic information and other techniques that young people could use to escape risky situations.

#### **The Role of Librarians in Information Provision on HIV/AIDS**

Librarians as professionals in the collection, organisation and dissemination of information and as agents of social change have crucial roles to play in

the fight against HIV/AIDS. Badawi (2005) in his report on the librarians' challenges in the fight against HIV stated that even medical doctors were of the view that professionals such as librarians should be involved in the propagation of information on HIV/AIDS to increase awareness and help to control the disease. In highlighting the role that libraries could play in controlling the spread of HIV, Hart (2000) assessed the materials in libraries in Swaziland and found that the information on their shelves was out of date and therefore not useful and that the libraries as information providers were not taking active role in the communities to bring about awareness.

It will be worthwhile for librarians to establish resource centres on HIV/AIDS where people could get factual information on the disease. Librarians as information professionals should collaborate with health professionals and media organisations to obtain information on HIV/AIDS, which they could then select, repackage in understandable ways depending on the target groups, and display in special sections of the libraries. Libraries could be involved in the provision of HIV/AIDS instructional videos in libraries and in resource centres visited regularly by the youths. They could also organise public lectures on regular basis where experts could be invited to give talks on the topics and participants are given opportunities to seek clarifications.

Libraries could also be involved in creating awareness by using HIV/AIDS instructional videos in outreach programmes. Librarians are not doing enough by just having the information available. They need to teach the user to understand what the information means and how to use it. An advantage of having libraries as providers of HIV/AIDS information, according to Hart (2000), is that no stigma is associated with visiting the library, as there is with a clinic and that the clinics have been responsible for disseminating information on the pandemic when the libraries could obviously have a better setting for this task.

### Conclusions and Recommendations

Secondary school students may be vulnerable to HIV infection, and this necessitates the provision of adequate information, so that they will know how to protect themselves from contracting the illness and would be able to develop tolerant attitudes towards people living with HIV/AIDS. The secondary school

students evaluated in the present study have shown good knowledge of HIV/AIDS, but had some misunderstandings on the transmission routes which have to be corrected. The mass media, that have been identified as the leading information sources need to implement innovative strategies to improve public knowledge of HIV/AIDS. The provision of information to increase awareness should be multisectoral. Thus, teachers and librarians as information specialists and agents of social change should take interest and participate in promoting awareness of the disease among secondary school students and the general public in Nigeria. There is the need to train teachers to enable them deliver information of sufficient quality and intensity that could have positive behavioural impact on the students. Libraries should liaise with experts in the health sector and non-governmental organisations to collect information on HIV/AIDS, which they could repackage and display in designated areas in the library for consultation by students when they visit their libraries. Libraries could be involved in the provision of audiovisual aids on HIV/AIDS in libraries and in resource centres visited regularly by the youths, and they could also be involved in regularly organising public lectures where experts can be invited to give talks on topics and participants are given opportunities to seek clarifications.

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## Book Review

**Towards the Digital library: Findings of an Investigation to Establish the Current Status of University Libraries in Africa** by Diana Rosenberg. Oxford: International Network for the Availability of Scientific Publications (INASP), 30 p.

The global trend is digitisation of library resources to improve the availability and accessibility of information to users. Therefore university libraries in Africa cannot be left out. The survey aimed to assess the progress made in African university libraries. This report is a veritable source of information on the status of some universities libraries in twenty Anglophone African countries on digitisation.

The survey was conducted on publicly funded university libraries in Sub-Saharan Anglophone Africa, excluding South Africa, to investigate the advancement towards digitisation. It sought to find out the steps that have been taken so far and the future support required for complete digitisation. Individual libraries (branch libraries) within a university were among the study population, while a university each from South Africa and Senegal were included in the study and used for comparison. One of the universities surveyed, Babcock University, Nigeria should not have been used for the study since it is a private university.

The study questionnaire was distributed to one hundred and seven libraries in twenty countries. Sixty eight copies of the completed questionnaire were returned from eighteen countries. The data for the survey were mostly on main university libraries as only few branch libraries responded. Results from sixty two libraries were used for the analysis. Onsite visits, discussions and interviews with university libraries were undertaken in five countries, namely Ghana, Malawi, Tanzania, Uganda and Zimbabwe while focus group discussion was held in Oxford with librarians from Kenya, Malawi, Uganda and Zimbabwe.

The results reveal that the libraries were at different levels of automation and digitisation. They had different ICT facilities, trained staff, user education programmes and e-services. External funding from thirty four international funding agencies was the major source of funding in the provision of computers and purchase of e-resources. External funding request is used to build digital collections, update and replace old hardware and maintain e-subscriptions. The formation of library consortia is an alternative to reducing the dependence on donor agencies as costs would be shared by participating libraries. The implication of this is that all the university libraries in a country must have the basic ICT facilities to access the available e-resources.

The study highlighted the relevance of training programmes for staff, especially in the acquisition of skills in e-resource management, e-services development and teaching, but such training should be geared towards the needs of individual libraries to ensure effectiveness. Also, the curricula of library schools in Africa need to be revised to meet the needs of practitioners in ICT literacy which will make them competent to work in e-environment. The study reveals that the ICT training conducted for undergraduate students were inadequate and the impact of the end-user training programme for postgraduates and academic staff were very low. This was attributed to the unsuitable training methods used.

The challenges that libraries with e-resources encountered were the speed and reliability of their Internet connection. It is hoped this would be reduced as some international agencies have decided to improve bandwidth in the African educational sector. Most libraries were in the planning stage of the digitisation of theses, dissertations, and local collections and were seeking for external support from donor agencies to complete this project. The study also found out that few libraries had achieved a web-based OPAC, while many libraries were yet

to develop services to the e-products purchased. No library had an established performance indicator for e-resource use of mechanism for establishing cost-benefits and cost-effectiveness. Fees were charged for Internet access in some libraries, while others did not.

The report is an in-depth study on efforts made by university libraries in Anglophone Africa on digitisation of their resources. It is well written and easily comprehensible to information professionals, university administrators and users. It is hoped that a study would be carried out in university libraries in Lusophone and Francophone countries in Africa so that results can be compared.

This survey is timely as it is an eye-opener to the low level of digitisation of libraries in Africa. The findings will be very useful to researchers, and library information professionals.

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## New Publication

**Improving the Quality of Library and Information Science Journals in West Africa: A Stakeholders Conference: Proceedings of the Conference held at the University of Ibadan, Nigeria 7-8 December, 2005.** Edited by L.O. Aina, A. A. Alemna and Iyabo Mabawonku. Ibadan: Third World Information Services, 155p. ISBN 978-32836-2-6.

The conference, organised by the African Journal of Library, Archives and Information Science (AJLAIS) and the West African Association of Library and Information Science Journal Editors (WALISJE), was sponsored by the International Network for the Availability of Scientific Publications (INASP), Oxford, United Kingdom. The book consists of thirteen chapters on different aspects of journal management. The authors include university professors, university librarians, editors of LIS journals, etc. The papers included in the proceedings cover management of scholarly journals, international visibility and impact in the scholarly community, possible online publishing of LIS journals in Africa, marketing and distribution of LIS journals, peer-review processing of LIS manuscripts and the role of emerging scholars in journal publishing. The contributions include:

**Management of LIS Journals: Some African Perspectives**  
*D.N. Ocholla.*

**Quality Assurance of Library and Information Science Journals Published in Nigeria: A Critical Overview**  
*Iyabo Mabawonku.*

**Sustainability of Library and Information Science Journals and Research in Africa: A Case Study of East Africa**  
*Jangawe Msuya.*

**Challenges of Journal Management by Editors in Africa: Case Study of a Nigerian University**  
*Emmanuel M.K. Dawha.*

**Management of Library and Information Science Journals: The Experience of the Ghana Library Journal**  
*I. K. Antwi*

**Improving International Visibility of Journals**  
*A. A. Alemna*

**The Impact and Visibility of Nigeria-Based Scholarly Journals in the International Scholarly Community**  
*L.O. Aina*

**Online Publishing of Library and Information Science Journals in Africa: Can it be Sustainable?**  
*Kgomotso H. Moahi*

**Online Publishing for Improving Visibility and Access to Research Publications in Africa**  
*Olayinka C. Fatoki and Gabriel A. Obinyan*

**Online Scholarly Publishing and Research Promotion in Nigeria: A Study of Academic Libraries in South-Eastern Nigeria**  
*Chinwe. N. Ezeani*

**The Challenges of Journal Marketing and Distribution in a Developing Economy**  
*Christopher O. Ola*

**Peer Reviewing and Quality of Library and Information Science Manuscripts**  
*Albert William Kobina Insaideo*

**Role of Journals in Developing Emerging Scholars in Library and Information Science**  
*Samuel C. Avemaria Utulu*

## Professional News and Events

### **NLA elects her First Female President in Thirty five Years**

The Nigerian Library Association (NLA), founded in 1963, elected Victoria Okojie its President in July 2005. Ms. Victoria Okojie becomes the second female president after Prof. (Mrs.) Adetoun Ogunsheye, who served from 1967 to 1970. Ms. Okojie is a library consultant at Lead Associates of Library and Information Services Management Limited, Abuja, Nigeria. Ms. Okojie was the Area Director (West) of the British Council Ibadan, Nigeria. She was previously a librarian at Kenneth Dike Library, University of Ibadan, Nigeria. She attended the Universities of Benin and Ibadan, both in Nigeria. She holds B.Sc, M.Sc. in Geography and Master of Library and Information Studies degrees. She held many positions in the library association before she was elected the President of the association. She was until recently the first Vice President of the Nigerian Library Association, National Councillor and the Chairperson, Oyo State Chapter of NLA. She is currently the Secretary of the West African Library Association and the Acting Registrar of Librarians Registration Council of Nigeria.

The Editorial Board of AJLAIS wishes her a successful tenure.

### **IFLA Africa Section Elects Officers**

Ms. Helena R. Asamoah-Hassan, the University Librarian, Kwame-Nkrumah University of Science and Technology, Kumasi, Ghana is the new Chair of IFLA-Africa Section. She, along with other officers were elected in Norway in August 2005. The Secretary is Ms. Buhle Mbambo, the University Librarian of the University of Zimbabwe.

### **A Nigerian Librarian Wins ASIST SIG III International Paper Contest**

Lukman Ibraheem Diso, a lecturer in the Department of Library and Information Science, Bayero University, Kano, Nigeria has won the first place in

the 2005 paper contest on "Bringing Research and Practice Together: The Developing World Perspective." The contest was organised by the American Society for Information Science and Technology (ASIST) International Information Issues Special Interest Group (SIG III). His paper entitled "Information Technology Policy Formulation in Nigeria: Answers without Questions." came first among the 30 papers selected from 12 developing countries.

### **New Members come on Board**

Six new editorial board members have been appointed to the Editorial Board of African Journal of Library, Archives and Information Science (AJLAIS). They are Professor Patrick Ngulube of the Department of Information Studies, University of Kwazulu-Natal, South Africa, Professor John Agada of Emporia State University, Emporia, Kansas, USA, Dr. Stephen Mutula of the Department of Library and Information Studies, University of Botswana, Dr. Isola Ajiferuke of the University of Western Ontario, Canada, Prof. Olu Olat Lawal, University Librarian, University of Calabar, Nigeria and Dr. Rose Okiy, University Librarian, Delta State University, Abraka, Nigeria. For the first time since the inception of the board in 1991, Africans in Diaspora have been appointed as members of the board. The six members are appointed for a five-year term. The management of AJLAIS wishes them a successful tenure.

### **Library, Information Science & Technology Abstracts (LISTA) is free through EBSCO Host**

The *Library, Information Science & Technology Abstracts (LISTA)* database is a free resource to anyone interested in libraries and information management. This world-class bibliographic database provides coverage on subjects such as librarianship, classification, cataloguing, bibliometrics, online information retrieval, information management and

more. Delivered via the EBSCOhost platform, *LISTA* indexes more than 600 periodicals plus books, research reports, and proceedings. With coverage dating back to the mid-1960s, it is the oldest continuously produced database covering the field of information.

AJLAIS is indexed by *LISTA*.

### Report of a Conference

#### Improving the Quality of Library and Information Science (LIS) Journals in West Africa: A Stakeholders Conference, held at the University of Ibadan, Nigeria, 7-8 December 2005

The conference was held in order to proffer solutions to the problems militating against publishing sustainable LIS journals in West Africa.

The theme of the conference was: Sustainability of library and information science journals and promotion of research in Africa. The sub-themes were:

- Management of Library and Information Science Journals in Africa
- Funding Agencies and Library and Information Science Journals in Africa
- Improving International Visibility of Library and Information Science Journals in Africa
- Peer Reviewing and Quality of Library and Information Science Manuscripts
- Online Publishing and Library and Information Science Journals in Africa
- Marketing and Distribution of Library and Information Science Journals
- Authors and Library and Information Science Journal Publishing in Africa

There were 38 participants from six countries—Botswana, Ghana, Nigeria, South Africa, Tanzania and the United Kingdom. The President of the Nigerian Library Association, Ms. Victoria Okojie, Dr. Linus Ikpaahindi, the National Librarian, National Library of Nigeria and the Representative of the Vice-Chancellor of the University of Ibadan, Mrs. Scott-Emuakpor, who is also the University Librarian

of the University of Ibadan, attended the opening ceremony.

At the end of the two-day conference, a communiqué was issued by the participants. The communiqué was based on the papers presented.

1. Provision of autonomy to managers and publishers of LIS Journals in West Africa should be accorded a top priority. Also, journals should be made sustainable through adequate funding and provision of appropriate structural support by the sponsoring body of each journal.
2. LIS Journals must strive to include international experts on their editorial boards, as this will improve the quality of the journals.
3. Continuing education programmes for editors and others involved in the publishing cycle of journals, is a "sine qua non". They must attend training courses, international conferences and workshops regularly.
4. Library and information science schools and training institutions must strengthen the research component of their curricula, and also put in place effective strategies on professional practice and how to publish good articles in journals.
5. The international visibility of LIS journals must be enhanced through regular indexing and abstracting by international indexing and abstracting agencies. To further improve the visibility of LIS journals, publishers of LIS journals in West Africa are encouraged to produce both print and online versions of their journals.
6. LIS journals should be encouraged to merge because there are many in Nigeria that are unsustainable. Also, there is a need to establish standards to be adhered to by journals. It is recommended that library associations should accredit LIS journals in West Africa. Only journals that meet the minimum standards should be accredited.
7. LIS journal editors need to evolve strategies for sourcing well-researched quality manuscripts in order to improve sustainability.

## AIMS AND SCOPE

African Journal of Library, Archives and Information Science is established mainly to provide a forum for librarians, archivists, documentalists, information scientists and other information related professionals in Africa to report their research findings but with emphasis on African setting. The Journal is refereed by distinguished scholars. Emphasis is on empirical research; however, manuscripts of high quality on theoretical aspects of the three information related disciplines will be considered for publication.

## MISSION

To provide on a regular and sustainable basis an excellent scholarly journal for reporting empirical research findings in the information profession in Africa

## VISION

To be the main resource base for library, archives and information science research in Africa

## NOTES TO CONTRIBUTORS

Contributors are to submit the manuscript by e-mail file attachment using MS word only. The title, author's name, position and place of work should appear on the first page. Subsequent pages, not more than 15, should include an informative abstract of not more than 100 words. A manuscript will be considered only if it has not been published elsewhere.

References and notes should be indicated in the text by names of authors and date of publication in brackets. The list of references should be listed in an alphabetical order at the end of the text.

References to journal articles should be in the following order: Author(s), date, title, journal's name, volume number, issue number and pagination, inclusive e.g.:

Mazikana, P.C. (1987) Archives and Oral History: Overwhelming Lack of Resources. *Information Development*, 3 (1) 13-10.

References to books should be in the following order: Author(s), date, title, place of publication, publisher, pagination, e. g.

Aboyade, B.O. (1989) *The Provision of Information for Rural Development*. Ibadan: Fountain Publications, 104 p.

References to contributors in collected works should be in the following order; authors(s), date, title of contribution, name of the editor, title of the collected works, place of publication, publisher and pagination, inclusive e.g.:

Neill, J.R. and Kotei, S.I.A. (1981) Towards a National Information System for Botswana. In: Inganji, Francis (ed.) *Use of information and Documentation for Planning and Decision Making*. Gaborone: NIR, pp. 36 - 53.

No charge is made for publication. A copy of the issue and two copies of reprints of each major article will be supplied to the principal author.

Manuscripts and other editorial materials should be directed to the Editor in Chief, Professor L.O. Aina, Department of Library and Information Studies, University of Botswana (e-mail:ainalo@mopipi.ub.bw) or any member of the editorial board nearest to you.