CONSTRAINTS ON LIBRARY AUTOMATION IN THE DEVELOPING COUNTRIES, WITH SPECIAL REFERENCE TO NIGERIA: PROSPECTS FOR EDUCATION AND TRAINING

BY

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To: 'Biodun, Mum, Dad, Heather, David, Russell, Gloria, Odih and the children

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ABSTRACT

A study is made of the educational and training needs, in new technology, of library students from the developing countries, particularly Nigeria. The study proceeds from a general consideration of developing countries and a description of Nigeria to a survey of seven Nigerian university libraries which was carried out by the Author to investigate basic requirements. Three of the Nigerian library schools were also visited in order to ascertain the extent of their coverage of new technology in the curriculum. The constraints on library automation are examined and it is found that a major constraint relates to gaps in the education and training of staff. The fact-finding visit to Nigeria was followed by a postal survey of UK library schools and their provision of new technology-related courses for overseas students. Few of the library schools actively encourage the enrolment of students from developing countries, hence provision of specially designed courses is virtually non-existent and depends heavily on the efforts of individual lecturers. Suggestions are made on how changing the emphasis in existing courses might make their content more relevant, as regards teaching about new technology.

LIST OF ABBREVIATIONS AND ACRONYMS

(other than names of institutions surveyed)

AACR	Anglo-American CataloguingRules
ACP	*African Caribbean and Pacific*
ALA	American Library Association
BLR and DD	British Library Research and Development Division
BLS	Bachelor of Library Science/Studies
BP	British Petroleum
DDC	Dewey Decimal Classification
ECOWAS	Economic Community of West African States
EEC	European Economic Community
GCE	General Certificate of Education
ICLG	*International and Comparative Librarianship Group*
IFLA	International Federation of Library Associations
IMF	International Monetary Fund
IT	Information Technology
LA	Library Association
LC	Library of Congress
MA	Master of Arts
MA/Alise	Master of Arts in Archives, Library and Information Studies and Education
MARC	Machine readable cataloguing
MLib	Master of Librarianship
MLS	Master of Library Studies/Science
MNC	Multinational Corporation
MSc	Master of Science
NAB	National Advisory Board
NDP	National Development Plan
NEPA	National Electric Power Authority
NIC	Newly-industrializing country
NLA	Nigerian Library Association
NUC	National Union Catalogue
NULOS	National Union List of Serials

OAU	Organization of African Unity
OPEC	Organization of Petroleum Exporting Countries
UDC	Universal Decimal Classification
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPS	Uninterrupted Power Supply
WASC	West African School Certificate

INTRODUCTION

This study aims to assess the practicality and problems of implementing and maintaining automated library and information services* in a developing country and to assess training needs for library automation. In order to set the discussion in a meaningful context, Chapter One considers developing countries, key terminology used and why the issue of computerized systems is judged important for library workers both in general terms and in relation to the industrialized and the developing countries. The role and importance of information technology (IT) is discussed, as is the transfer of technology and the implications of this. Chapter Two is a short history and description of Nigeria, the particular developing country under consideration. A short background to library development in Nigeria is also given. The third Chapter is the report of a survey of several Nigerian libraries, carried out in April-May 1985. Chapter Four considers constraints on the introduction of new technology into library services in the developing countries, focussing on library automation. Chapter Five contains the report of a survey of three Nigerian library schools visited and assesses the development of library education, particularly in relation to the coverage of aspects of new technology. The sixth Chapter considers educational and training opportunities for students, from developing countries, in the United Kingdom (UK). It also contains the results of a postal survey of all UK library schools plus certain professional associations. Chapter Seven considers the educational requirements of overseas students with regard to new technology and in the light of the foregoing discussions. The prospects of meeting such requirements are discussed.

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* 'Library and Information Services' will henceforth be expressed by the term 'library services'.

It should be noted that Chapters One, Two and Four are based mainly on the published literature. The Author does not claim to have carried out a review of all the relevant literature published although the literature search was quite comprehensive given the limitations of time. The choice of literature has been, necessarily, selective. To claim to offer a 'balanced' selection is, in the Author's view, unrealistic, since one would have to survey all the literature initially in order to ascertain what a 'balance' might be. However, it is hoped that differing opinions are given space.

CHAPTER 1

DEVELOPING COUNTRIES AND THE NEW TECHNOLOGY

1.1 Introduction

This Chapter is intended as a general introduction to the remainder of the study. The major international issues considered to be most important and relevant to this study are outlined. Although the coverage is, necessarily, superficial, an overview of these issues was thought to be useful and pertinent to the present study.

1.2 Developing Countries

It is considered that discussion of the concept of 'developing countries' is useful, if not vital, as a preliminary to the discussion of library-related topics in these countries. The Author believes that libraries (like other institutions) should be viewed in the light of their specific cultural, historical and social context and, in view of the fact that many developing countries have long historical ties with other nations, the international aspect should not be ignored.

1.2.1 Definitions

For the purposes of this study, a 'developing country' is taken to be any country other than those of Western Europe, United States of America (USA), Japan, Australia, New Zealand, the East European States, China and the Soviet Union. This definition is taken from the Brandt report[1]. This report also refers to the developing countries as the 'poor' or the 'South' as opposed to the 'rich' or the 'North', stressing however that the term does not refer to a "uniform or permanent grouping"[2]. These terms are used interchangeably within this study. Bessant[3] categorizes the developing countries according to their *"level of industrial development"* as *"... poorly developed nations, newly industrialising countries (NIC) and resource-exporting countries".*[4]

1.2.2 Nature of Developing Countries

Despite the diversity of the nations which are brought together under the term 'developing country', it is considered fair to suggest that they do share some common characteristics and problems. Bessant has outlined some of the most common features shared and these include:

- acute material deprivation
- highly unequal income distribution
- substantial unemployment, underemployment or employment at very marginal rates of productivity.[5]

It is probably fair to state that the majority of developing countries have non-diversified agricultural economies which render them rather vulnerable to the fluctuations of the world's markets. Also, many of these countries have attained political independence only since the ending of the Second World War and have had, as political priorities, nation-building and economic growth. However, on the whole, their progress has been fraught with political and economic crises. Many have experienced political instability, numerous coups and military rule. Pronounced social inequalities between regions, urban and rural populations, and, perhaps most obviously, between elite and masses are also much in evidence. Goldthorpe[6] suggests that such elites are likely to have more in common with similar elites from other countries than with their own people, especially in terms of education, values and standard of living[7]. This implies that socio-economic relations cannot be viewed purely on a national basis but should be viewed in an international context.

1.3 International Political and Economic Order

Discussion of political and economic issues has been combined as it is considered unrealistic to separate the two activities for the purposes of this study. It is considered that the flow of information throughout the world is linked to the general character of international

political and economic relations and, for this reason, discussion of such is thought useful.

Whatever theory or view of international relations is propounded, it is clear that the developing countries are in a disadvantaged position. Some writers suggest that, even in those international organizations purporting to work towards a more equitable world and certainly working on issues relating to IT and developing countries, *"developing countries have thus far had a relatively marginal role"*.[8]

Cees Hamelink[9], a professor at Amsterdam University, suggests that Brandt's North-South divide (1.2.1) is in fact a misnomer since it implies a degree of uniformity within the South that does not exist and further states that *"... the continuation of the North-South discussion is in fact hindering a new order"*.[10]

1.3.1 Theories of Development and Underdevelopment

The major theories of underdevelopment have been summarized by William Stover[11], who suggests that there have been three "waves" of theories, starting from Rostow's "take-off theory" where, having reached a certain level of economic growth, a country's economy would automatically continue to expand and grow. Reformist theories followed, stating that *sustained input to an economy was required. Finally, theories of* dependency and neo-colonialism gained sway[12]. These theories have tended to be radical[13] but convincing arguments from a different political viewpoint have not been forthcoming - most of these seem to support a policy of non-involvement, merely the furtherance of liberal economic policies[14].

1.3.2 International Debt

Theoretical considerations aside, the developing countries have severe economic problems both nationally and internationally. Debt problems

and trade deficits seem to be on the increase, although it is the Latin American countries which have the greatest problems in this area. Graham Bird[15] has outlined the major causes and characteristics of debt problems and has proposed possible policy options for both debtors and creditors. The reader is also directed to a government report on international debt[16].

1.3.3 Economic Growth

Most countries attach great importance to the rate of growth in the economy although this in itself does not always lead to development. The nature of such growth and its relevance to the situation at hand should be analyzed carefully. The quality of growth should be determined in relation to specific historical and cultural features, political and social goals and should be harmonious with these[17].

1.3.4 International Trade

International trading relationships are often maintained on the basis of historical ties. Present day communications mean that distance is rarely a barrier to trade. One disturbing feature is the growth of multinational corporations (MNCs) and the increasing concentration of production and marketing in the hands of these. MNCs are particularly evident in fundamental sectors such as energy, resources, food and commodities. Their presence is rarely conducive to the emergence of autonomous industries in the developing countries[18].

1.3.5 Foreign Aid

Much scepticism exists about the value of foreign aid and it is criticized from divergent viewpoints. Some believe that, in the past, aid has been inadequate, implying that more is required although perhaps in a different guise[19]. Others believe that aid should be abandoned

altogether for the benefit of donor and recipient[20]. Given the colonial background and historical situation in which developing countries find themselves, the Author believes that countries of the North have both historical and political responsibilities to those of the South. Aid is one way in which these responsibilities may be partially met.

1.3.6 Role of the Library Worker

The Brandt report had a significant impact on the public imagination and it is important not to lose sight of this. Some quite practicable and relatively effortless proposals have been put forward by Peter Moll[21] showing what librarians in the North can do to ease some of the pressures on their counterparts in the South. Increased interaction can only foster mutual recognition and respect. Participation in international organizations such as the International Federation of Library Associations (IFLA) and the International and Comparative Librarianship Group (ICLG) should be promoted as a starting point as well as continued interest in the work of UNESCO, whatever the effect of the US withdrawal and threatened British withdrawal from this organization.

1.4 New Technology

New technology, as applied to library services in this work, falls within the broader concept of information technology (IT) which has been defined as *"various means of obtaining, storing and transferring information, using computers, telecommunications and micro-electronics"*[22]. It is pointed out that the information content itself is as important as, if not more important, than the technology.

1.4.1 The Impact of IT on Industrialized and Developing Countries

Recent advances in IT are having, and will continue to have, a significant effect on daily life. Some of the most important and obvious

developments include the ever-increasing flexibility and cost-effectiveness of computers, the portable and self-sufficient micros, satellite communications, the linking of telecommunications and computers. These developments mean that the international aspects of IT are increasing in importance. The effects of IT on social relationships and employment prospects are subject to much speculation. Alvin Toffler's works[23] have presented one scenario of future developments and their human effects, positive and negative. The unknown brings fears and insecurities to the fore. The IT industry may be creating new and different jobs currently but the fear of losing jobs in the future is not unreasonable. This fear may be all the greater in a developing country, characterized by a labour-intensive workforce. The implications are that the quality and appropriateness of IT must be at the basis of its introduction.

IT is currently a growth area and one in which library workers must participate fully if they are not to be displaced by new types of professionals emerging, who are not necessarily library-based. One of the major debates to be held at the Conference of Members of the Joint Consultative Commission in the information industry to be held in September 1985 will be on the motion that:

> *This house believes that information technology signals the end of libraries.* 24

These factors have implications for the profession in the developing countries as in the industrialized countries.

The recent acknowledgement and realization of the role and importance of information and knowledge by all sectors of society, has been discussed by Bessant, who also suggests that the South is threatened because the current relative advantage held by the developing countries in terms of plentiful, cheap labour will, in the future, no longer be an advantage[25]. That the developing countries lag behind in terms of IT is widely known and this is due, in part, to the lack of even the

most basic infrastructure. Many express the belief that the IT revolution may serve to increase the gaps between the industrialized and the developing countries and exacerbate the situation further, unless steps are taken to prevent this[27].

1.4.2 Transfer of Technology

From the foregoing discussion, it may be concluded that at present, technological relationships between North and South are imbalanced. Technology transfer occurs mainly in the direction North to South and some consider it to be a misnomer:

> *As is the case with technology in general, real transfer of information technology hardly takes place. What is usually transferred are end products and related services.* 28

If this is the case, then it is clear that technology transfer as a process needs re-thinking if the objectives are to further develop and help in the creation of inter-dependent states rather than perpetuate the existence of dependent states.

The ethics of dwelling on technology transfer may be questioned, particularly in the face of issues relating directly to life and death. Technology must be seen as a means, not as an end in itself. Investment in new technology should be only one part of the solution to the fundamentally political questions of drought, starvation and so on. The implication is that countries of the South must be prepared to state and must be capable of stating their needs, on their own terms and must attempt to use the new technologies available to their advantage. The Brandt report concludes that:

> *The acquisition of technology is crucial, not only to growth but to the capacity to grow.* 24

Objectives of technology acquisition and transfer must be clear and should offer the criteria for ascertaining the effectiveness of such transfer. It may be that greater regional cooperation among developing countries is a solution to some of the technology transfer problems. The pooling of resources and sharing of expertise may make successful projects more feasible and cut costs. Also, it has been suggested that technology transfer is most effective when the level of development between "giver and taker" is similar[30].

1.4.3 Appropriate Technology

Past experiences of technology transfer to the developing countries have not been satisfactory in libraries, as in other organizations. Munn[31], writing on information services in developing countries, has given reasons for this, suggesting that many projects have been based on purely theoretical considerations while practical factors such as the ability of recipients to pay the full costs, the existence of vital support services, the effects on patterns of employment, etcetera have not been taken into account[32].

More research into appropriate technology is required. The need to analyze, objectively, the existing system must be stressed - this may be avoided due to constraints of time, lack of staff or because such an analysis might reveal weaknesses which, despite being difficult to avoid, may be considered best left alone. Reasons for the introduction of new technology must be scrutinized.

1.5 Methodology in Library Services in the Developing Countries New Techno

The planned adoption of IT in the developing countries could be a valuable tool in national development. To attract the funding for such requires that the roles of library services are clarified and shown to be worthwhile. It may be that for many services, new technology is not a priority. Existing services may not be as efficient or effective as they could be and relatively minor changes based on a rigorous

systems analysis may lead to great improvements. Line and Smith[33] believe that improved document provision and availability outweighs, by far, the need for computer networks in developing countries. According to them, sound central interlending and good photocopying facilities could solve many access problems[34]. Others also agree that more fundamental technology is often preferable[35]. These viewpoints certainly highlight the type of thinking required.

Some writers suggest pre-conditions for the successful introduction of new technology to library services in the developing countries - for instance, that projects must be perceived as practical and relevant, fit in with existing cultural patterns, must be within the price range of a nation (initially and in the long term), must produce results quickly and visibly[36].

The question of appropriate technology recurs. Most of the new technologies are designed and produced in the North, where the market is not yet saturated, and are thus directed at the needs of the North. Ninety-six per cent of the world's spending on research and development is spent in the North[37]. The production of technologies suitable for use in the South could pose a fruitful challenge to manufacturers in the North and some are already aware of the potential gains in that area[38].

Professionals other than library workers are aware of the advances in IT and their need to keep pace with trends as is illustrated in the words of the author of an article in a Nigerian newspaper feature on computers in a developing country:

> *Because the computer is not our own invention, our challenge is to go to it, understand it, and use it to our advantage, not wait for it to come to us.* 39

To reiterate, as in the North, librarians in the developing countries must develop and pursue an awareness of IT, as are other professionals, in order to be able to be a party to planned and rational rather than enforced decision making.

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delivery. Climate is an important factor since it could affect the choice and suitability of equipment. Major climatic features to be considered when designing, developing or selecting equipment include heat, dust and humidity.

2.3 Historical and Political Background

Nigeria came into existence, in its present form, on 1 January 1914 and was divided, for administrative purposes, into four regions - the Colony of Lagos and the Eastern, Northern and Western provinces. In 1960, Nigeria became independent and, in 1963, a republic. The creation of a national identity and national unity was a major problem in the succeeding years. The economic situation in the early 1960's was very difficult and 1963 saw a general strike. The elections held in 1964 were poorly conducted and a breakdown of law and order ensued. Military coups in January and July of 1966 preceded the Civil War (July 1967-January 1970). It was decided, in 1967, to alter the administrative division of the country and to create a new twelve-state structure as an attempt to remove the earlier structural basis of regional rivalry and competition. The ending of the Civil War did not bring stability and there was a further coup in 1975. The oil boom of the 1970's appeared to have brought prosperity to the nation and prospects for economic growth. Seven more states were created in 1976 bringing the number to its present total of nineteen[3]. It was also decided then to build a new federal capital city in a central position, at Abuja, to relieve Lagos of some of its pressures. Although construction of the city has proceeded, its future as a viable capital still seems uncertain.

The military handed power back to a civilian regime in 1979, but on 31 December 1983, a further military coup occurred. The new military leaders claimed to have effected the coup in order to revitalize a then stagnating economy and to restore law and order to the country.

As regards foreign policy, throughout the 1960's and early 1970's,

Nigeria took a generally pro-Western stance but, from the late 1970's Nigeria became increasingly independent and pursued the decision to put African interests first at all times. This included the nationalization of British Petroleum's (BP's) interests in Nigeria in 1979[4] and such 'indigenization' policies have been followed since then. Nigeria is a member of the United Nations (UN), Organization of African Unity (OAU), the Economic Community of West African States (ECOWAS), Organization for Petroleum Exporting Countries (OPEC) and is an African, Caribbean and Pacific (ACP) member of the European Economic Community (EEC).

2.4 Economic Factors

As a rough guide, seventy per cent of Nigeria's working population is involved in the agricultural sector, and these are mainly peasant farmers[5]. Despite this large percentage, the agricultural sector has until recently been under-exploited. During the oil boom of the 1970's, little large-scale, long-term investment went into agriculture and the situation is such that,for many years it has been cheaper and easier to import basic foodstuffs than to produce them locally[6].

According to P. Smith, only approximately seven per cent of the national income is earned through manufacturing. Fourteen per cent of the labour force is employed by registered businesses while thirty-three per cent is employed by the government. One reason why manufacturing has been so poorly developed in Nigeria has been proposed

> *... relatively few of those Nigerians enriched through the oil boom have invested their funds in locally resource-based large-scale manufacturing* 8.

A major problem has thus been lack of investment by Nigerians themselves. Although there are manufacturing industries in Nigeria, these tend to be based on assembly work for foreign firms and dependent on imports, thus not promoting indigenous industrial development

but utilizing the available pool of labour. Smith does state that two of the key aims of Nigerian government are to develop the infrastructure of Nigeria and develop heavy industry[9], although neither of these aims will be easy to achieve.

The National Development Plans (NDPs) covering five-year periods, form the mechanism governing the workings of the economy. The end of the fourth plan (1980-1985) is now approaching. For economic reasons, such as the fall in oil revenues and the concomitant fall in foreign exchange reserves, the world recession and budgetary deficits, the planned expenditure for that period was cut by thirty per cent[10]. Austerity measures and curbs on public spending imposed then remain in force even now.

The fifth NDP, due to begin in 1986 is now being prepared and guidelines for proposals were circulated to the relevant organizations at the start of 1985 so that plans and anticipated requirements can be forwarded to the government bodies concerned[11]. Projects not considered viable or worthwhile, which were started under earlier NDPs, will be abandoned.

Along with other developing countries, Nigeria has an international debt problem, although only once within 1975-1983 has debt repayment had to be rescheduled, for a sum of 1830 million US dollars[12]. Since 1983, the annual rate of imports has been cut by twenty per cent and the Naira devalued by over fifteen per cent, although the IMF has asked Nigeria to devalue its currency by fifty per cent. This notwithstanding:

> ... *the country has never defaulted on medium and long-term debt obligations* ... [13]

Although Nigeria has a fairly good reputation in this respect to date, compared to many other developing countries, the size of its debts and high rate of inflation make one pessimistic about the future.

2.5 Infrastructure

Adequate and reliable infrastructure is a precondition for the successful introduction of some of the new technologies mentioned earlier (1.4). This section outlines the basic features of infrastructure in Nigeria.

2.5.1 Communications

According to an article in New African[14], Nigeria has the best roads in black Africa, one of the positive outcomes of the 1970's oil boom. In 1980 Nigeria was supposed to have had 108,000 kilometres of maintained roads and 633,268 registered vehicles. Since the 1920's there has been no major investment in the railway service[15]. There were, in 1980, 3505 route kilometres of railway line[16].

Nigeria has several internal airports and two major international airports. Most internal travel is by road or air as is travel to neighbouring countries, although land borders are presently closed for political reasons. There are four major sea-ports on the southern coast.

2.5.2 Postal and Telecommunications Facilities

There were, in 1980, 1667 post offices and agencies throughout the country[17]. Most of the internal mail is transported by air.

One of the objectives of the fourth National Development Plan (NDP)[18] was the:

> *... strengthening of our economic infrastructures, particularly power, water supply and telecommunications.* 19

Under this plan, 417.9 million naira (N417.9m)[20] was allocated to telephone switching and the aim was to have 611,550 telephone lines by 1985[21].

However, in view of the enforced cutbacks during the plan period, it may be assumed that this target was not met. Nigeria is also participating in an ECOWAS project on *"an integrated telecommunications network"*,[22] although the progress of this project is not known.

2.5.3 Energy and Natural Resources

The National Electric Power Authority (NEPA) is responsible for the provision of electricity in Nigeria. The construction of the Kainji Dam on the river Niger in the 1960's aided the industrialization efforts of the 1970's and remains a valuable source of hydroelectric power and irrigation. A comprehensive programme for the electrification of rural areas is in progress under the fourth NDP[23]. However, the demand for electricity continues to be greater than the supply and an immense strain is placed on the available resources, so that power cuts and fluctuations are frequent. A regular and stable supply of electricity is a vital element of technological development.

Oil is, at present, the mainstay of Nigeria's economy, forming ninety five per cent of Nigeria's exports[24]. Being thus dependent on one major natural resource has its disadvantages as it renders the country vulnerable to the fluctuations of the world market.

2.6 Social Factors

Nigeria is the most populous black African state. The census of 1963 showed the population to be 55,670,055 and it was then projected that the population in 1982 would be 89,117,500[25]. The results of a later census held in 1973 were abandoned because they were not accepted by the population at large. A fresh attempt at a population census is expected shortly.

The population is, for historical reasons, heterogenous and there are probably more than 250 ethnic groups within Nigeria's borders and as many languages[26]. There are three major ethnic groupings in Nigeria: the Hausa-Fulani of the North, speaking Hausa, the Yoruba of the West, speaking Yoruba and the Igbo of the East, speaking Igbo. The official language is English. The literacy rate (usually meaning literacy in English) stands at about twenty-five per cent[27]. Since 1982, there has been a national mass literacy campaign, involving both State and Federal governments. It was interesting to note, during a recent visit to Nigeria that only in some states were the public library services involved in the campaign from the start. Yet another potentially divisive factor in Nigerian society is the disparity of incomes and the gap between the elites and the masses. The elites tend to be distinguished mainly by higher educational qualifications and the holding of salaried posts although many Nigerians have made fortunes through trading and commercial activities.

2.7 *Higher Education*

In the fourth NDP, 2,200 million Naira, over five years, was allocated to the Federal programme for secondary and higher education, equivalent to 5.5 per cent of the total capital investment. Higher education was allocated 1,250 million Naira (fifty-six per cent) of this sum[28]. The National Universities Commission (NUC) recommends that five per cent of a University's budget should be awarded to the library, so it can be deduced that approximately 62,500,000 Naira was allocated to University libraries in Nigeria during the period of the plan. However, it has already been said (2.4) that the fourth NDP was not totally successful and it can be assumed that not all the allocated funds were actually made available. Nevertheless, the concern to invest in and expand higher education came from the conviction that:

> *... the gap between the supply and demand of manpower, particularly scientific and technical manpower, has remained very wide.* 29

There were, in 1982-3, twenty four Universities in Nigeria, 88,636 university and 53,766 polytechnic students.[30] The low number of students in higher education was causing concern even at the start of the third NDP[31] when two major constraints on increasing the number of enrolments were expressed as being the shortage of academic staff and of accommodation for both staff and students. "Restrictive admission policies" are also cited as a major deterrent[32].

State governments were allocated over 25 million Naira, for the period of the fourth NDP for information policy. This sum was intended basically for the mobilization of the people for national development and the dissemination of government-produced information, plus the monitoring of the reactions of the people to government policy[33], rather than for the development of library services specifically.

2.8 Library Development

A brief overview of the most important aspects of library development in Nigeria is given.

2.8.1 General Factors

The government acknowledged the importance of information services even under the third NDP (1975-1980) stating that the period of Civil War had highlighted the adverse effects of lack of information[34]. That plan saw an investment of 15.8 million Naira to the National Library project alone[35] as a central part of the government's policy to expand library services. However, as stated earlier (2.4) proposals of all the development plans have been subject to setbacks and actual investment is not known.

The Civil War also had an effect on libraries physically. In particular, the two libraries of the University of Nigeria in Nsukka and Enugu, lost at least sixty thousand volumes plus library furniture and equipment, although the buildings remained intact[36].

The book trade and publishing sector in Nigeria are not well developed. According to Enu[37]

> *... ninety five per cent of all the University books in Nigeria come from abroad.* 38

There are few indigenous publishers, bookshops are scarce and poorly stocked. Reading tends not to be a leisure activity. Obviously, with only a twenty five per cent literacy rate currently, the market for books in English is limited although there is potentially a large market. Outside immediate professional interests, those who do read tend to do so for examination purposes rather than purely for pleasure. In a predominantly oral culture, the solitary occupation of reading may not be appreciated. Libraries (particularly public libraries) tend to be regarded first and foremost, as places of private study rather than as centres of information provision.

2.8.2 Nigerian Library Association (NLA)

The Nigerian Library Association (NLA) has no legal status as yet although it is recognized by the government as a professional association and receives a government grant. Members of the NLA are currently working on a draft of a national information policy drawing together all interested organizations.

At present the NLA has no permanent headquarters but is based temporarily in Kaduna. Theoretically, there are divisions of the NLA in each state. There are also various sub-groups and committees, one of the most active of which is the Education Committee. There is no sub-group on computers or new technology since it is considered that participation in such would be very limited. The NLA has published several newsletters and a journal, Nigerian Libraries. The journal was last published in 1982 but a further issue is due to be published by the end of 1985[40].

2.8.3 The National Library of Nigeria (NLN)

In November 1964, the National Library of Nigeria (NLN) opened formally, although its functions were quite limited. The NLN plus the library of the University of Ibadan are the two national depository libraries in the country. They are situated within 150 kilometres of each other which is not satisfactory in a country of Nigeria's size. Attempts to produce a National Union Catalogue (NUC) began in 1965 with the participation of four libraries but efforts have been hindered by various constraints[41].

2.8.4 Library Automation in Nigeria

In March 1977, the first workshop on library automation in Nigeria was held, at the University of Ibadan. Its purpose was to report on the "automation plans and activities" of the six oldest universities. It was concluded that there was a lack of coordination and cooperation among the libraries and it was proposed to set up a committee to stimulate coordination and cooperation. However, by 1979 little had been done[42] and the Author found no evidence of any such activity while in Nigeria April-May 1985.

Since the mid-1970's, libraries in Nigeria have made efforts to automate their library services and introduce new technology to their work. Those educated abroad, particularly, will have been exposed to quite sophisticated automated library services and will have seen the potential advantages of such. The drive for modernization is still strong and the temptation to introduce computerized systems where not particularly suitable, may be great. Often computers are seen as a visible symbol of advancement and progress but failure may outweigh success if they are introduced for the wrong reasons.

Various projects for automation were planned during the 1970's, with varying degrees of success. The library of the University of Ibadan planned to convert its monograph catalogue to LC MARC format, as far

back as 1975. Lack of funds held up the project. Automation of the serials catalogue at the same library occurred between 1973 and 1975, and in 1975 a serials catalogue was produced in book form as a result of this project. A machine-based Union List of Serials, based on the holdings of fifteen libraries was produced in 1977[43] and an Automation Panel of the University considered the possibility of automation of the circulation function using a Plessey library system[44]. It was suggested that one of the reasons for the lack of success of some of the automation projects was "management problems", particularly involving liaison with the Computer Centre[45]. Manual information retrieval systems have been used in at least two agricultural institutions - the Anson Retrieval Device, at the Institute of Agricultural Research (IAR) at Ahmadu Bello University (ABU) and the Remal System, at the International Institute for Tropical Agriculture (IITA) Ibadan University (IU)[46].

The reader is referred back to Chapter 1 (1.5) as many of the general statements made in that section are also applicable to the Nigerian situation.

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Naira	Pound (sterling)	Dollar (United States)
1	1.1477	0.895

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CHAPTER 3

SURVEY OF NIGERIAN UNIVERSITY LIBRARIES

3.1 Aims and Objectives

The following is the report of a fact-finding visit to Nigeria, April-May 1985. The visit lasted seven weeks in all, of which approximately four weeks were spent on active research. The shortness of the visit is recognized as a limitation but, nevertheless, information was collected which would not have been obtained otherwise. The general aim of the survey was to assess trends in the way in which Nigerian libraries and librarians are dealing with the issue of new technology and, in particular, library automation. This was considered to be an important area of research because of the rapid encroachment of IT generally into everyday life in the industrialized nations and the apparent problems facing attempts to introduce the new technology to developing countries. Much of the information obtained is necessarily subjective.

Specific objectives were as follows:

i) to describe the library in its current state, including the major features of the library service and noting any operating difficulties

ii) to note down automation projects, in progress at time of visit, previously implemented or planned

iii) to discuss problems that had arisen or may arise because of automation and to identify the constraints on automation in Nigeria generally

iv) to determine whether library staff were deemed to be adequately trained and prepared for automation.

3.2 Methodology

This section will describe the methodology employed by the author for this particular survey. Visits were made to a number of libraries in Nigeria, using a questionnaire (Appendix 1) as the basis for interviews.

3.2.1 Questionnaire-design and Purpose

The aim of the questionnaire was to find out details about the libraries visited particularly concerning stock, training levels of staff, organization, functions and services offered by the library, and also the extent and level of new technology used in each library, its usage and maintenance.

The questionnaire was devised by the Author in advance of the visit and used as the basis for structured interviews in six of the libraries visited (Appendix 2). Unstructured conversations at these libraries have also been used as a basis for comment in this work. The interview approach was adopted because of the opportunity available to visit libraries in person and because of the known problems associated with postal communications in Nigeria.

A copy of the questionnaire was also left at three other establishments where it was not possible to hold an interview. In addition, informal visits were made to six further establishments.

3.2.2 Collection of Information

The libraries visited were chosen according to their perceived importance and according to their accessibility during the course of the short visit. Thus the choice was both subjective and based on practical considerations (Figure 1, Appendix 2).

Five academic libraries were visited, four of which were university libraries and one, a polytechnic library. A conscious decision was made to concentrate on academic libraries since it was felt that, if new technology were to be introduced, it would most likely be introduced into an academic, special or research library. Academic libraries were the most readily accessible type of library on this visit. Two public libraries were visited although only at one of these were comprehensive interviews held.

Individuals at three of the libraries visited were contacted by letter in February 1985 as a means of initial introduction. Responses were received on arrival in Nigeria. The remaining three libraries were contacted on arrival. A letter of introduction from the Department (Appendix 3) was taken.

For reasons of time and the distances involved, potentially worthwhile visits could not be made to certain libraries - (National Library of Nigeria, University of Lagos Library). Instead questionnaires were delivered to these for self-completion.

Interviews usually lasted between two and three hours. In general, deputy librarians or librarians at the head of sections were interviewed. In most cases, more than one member of staff was interviewed at each establishment.

Short, informal visits made to six other establishments (Appendix 2) varied in their duration and usefulness for this survey. Although structured interviews were not held in these cases, time and opportunity made the visits possible and the results were useful for this survey as background information.

3.2.3 Scope and Limitations of Survey

Due to the shortness of time and the nature of this work, a comprehensive survey was not possible nor deemed necessary since the aim was to identify trends rather than absolute facts. The long distances to be covered in order to visit a library reduced the amount of time available for structured interviews in many cases. However, useful comment was obtained if not complete and fully-researched responses.

Repeat visits were made to some libraries (Kashim Ibrahim Library, Zaria for example) while others were visited for only two-three hours in all (Bayero University Library, Kano).

Occasionally, because of difficulties with communications and transport, it was not possible to arrange a visit in advance. In these circumstances, interviews could not always be held in which case a copy of the questionnaire was left for self-completion by the library and useful data was gathered.

Prior to the visit, little time was available for the design of the questionnaire and a pilot survey in Nigeria was impossible. Any ambiguities coming to light during the course of interviews were clarified at the time. The major drawback was the length of the questionnaire and the need for answers to quantitative questions at short notice. The questionnaire was quite comprehensive and the interviewees were very willing to spare the time to go through the whole questionnaire and supply current facts and figures.

3.3 Brief Description of Libraries Visited

The twelve libraries visited will be described briefly as a background.

a) *Bayero University, Kano (BUK)*
Bayero University Library

Bayero University was a college of Ahmadu Bello University (ABU) Zaria until it gained autonomous status in the late 1970's. The library is housed in one building, on two floors. Space is limited but the library is due to move to a new larger premises in 1986. The campus is on one site only, located in the North of Nigeria. The library holds and is developing an important research collection for Arabic/Islamic studies. The library also holds more than three thousand manuscripts on the history of the Fulani and Northern Nigeria. It also has a documents section comprising goverment documents and Nigeriana.

b) *Ibadan University, Ibadan (IU)*
Ibadan University Library

The main university library occupies a four-storey building plus a basement area which houses the air-conditioning plant and duplicating room. The areas of the library open to visitors are spacious. On the ground floor are the entrance and exit doors, an exhibition hall, general reading and reference rooms, reserve book room and circulation desk. There are three security check points in all. Floors one to four house the stacks, special collections and staff offices. The library holds several special collections, including the Africana collection, Arabic Book and Manuscript collection, documents collection, general manuscript collection, maps and prints collection, publications ordinance collection, rare books and staff publications, theses collection[2].

The main library plus the extension of the research library occupy 102,800 square feet in total and has a capacity for 500,000 volumes and 1,250 readers[3].

In total, there are twenty-eight faculty and departmental libraries on-and off-campus.

i) Institute of African Studies (IAS)

The Institute of African Studies is a small research institute. A museum is also run under the auspices of the Institute. The library occupies a single room for open access materials and serials. There is a small circulation desk. There is seating for perhaps fifty readers. The librarian's office is adjacent to the library and this holds the audio-visual resources such as cassette tapes, reel-to-reel tapes, gramophone records, microfilms etc.

The library is renowned mostly for its collection of visual and audio-recordings of aspects of African/Nigerian culture, history, politics, traditional medicine, anthropology.

ii) International Institute of Tropical Agriculture (IITA)

This is a research institute of international renown, which opened in 1969. The functions of the library and documentation centre are to support the research work of the Institute by the acquisition of relevant materials, dissemination of relevant information to staff and students of the Institute and the production of bibliographies[5].

iii) Department of Library Studies - Resource Centre

This departmental library occupies a single room with thirty-two seats. The majority of the stock is available for loan, although many reference

works, bound serials and theses are available only on request. Space is limited, both for staff and readers. Coverage encompasses all aspects of library and information science and book production.

iv) Abadina Media Resources Library

This is a small school library catering mainly for teachers at the staff school of the University and housed in a small self-contained building. Children's books and a reading area occupy most of the space while teaching materials occupy the remaining space. These stacks occupy the largest room. Other rooms include staff rooms plus one room where audio-visual materials and equipment are kept and a viewing room where films and slides are shown.

c) Jos University, Jos (Jos)

Jos University Library

This library consists of a main library plus one branch library. The main library, covering arts and social sciences, is situated on the main campus while the branch library covering natural and medical sciences is situated five kilometres away. The main library suffers from shortage of space particularly for staff. There is also a shortage of seating. There are only four carrels in the library, one of which is assigned, permanently, to a blind student. The part of the building housing the stacks has had two extensions already, but new premises are now under construction (photographs of progress made by early 1985 were seen). The new premises will be in a four-storey building and it is hoped to concentrate all the library resources of the University there. Accommodation for an audio-visual resource centre has been planned as has an appropriate area for a computer installation.

d) *Kaduna Polytechnic (KP)*

Kaduna Polytechnic Library

The polytechnic is spread over four sites and the library has a branch on each site. The main library is situated on the fourth floor of a faculty building. The premises were not purpose-built. Space is a problem and expansion is currently in progress - by occupying more rooms (offices) and, in some cases, knocking down walls in order to make the rooms larger and capable of more flexible use.

The library's collections aim to cover all subjects taught at the polytechnic.

e) *Ahmadu Bello University, Zaira (ABU)*

i) Kashim Ibrahim Library

ABU is the largest University in the North of Nigeria. The Kashim Ibrahim Library is the main university library occuping a large three-storey building in a central position. The library is spacious and expansion is possible. The library was built in modules to allow for flexibility. The total area occupied is 139,790 square feet[6]. The ground floor is open to the first floor ceiling which further accentuates the spaciousness. There is one single entrance and exit.

The ground floor holds an exhibition area, circulation control desk, the reference room and the information/enquiry office. On the first floor is a music and non-book media room plus stacks and administrative offices. The second floor holds stacks - the science and technology collections, government documents, Africana collection, theses and rare books, while the third floor is occupied by the air-conditioning plant[7]. The Africana collection is probably the most important of the collections.

ii) Institute of Agricultural Research Library

The library occupies a small area of the institute and holds an important collection on Nigerian agriculture, which is used as the basis for the research work of the Institute and is an important part of the nation's resources in this subject area.

f) Kaduna State Library Board, Kaduna (KSLB)

The State Library Boards were established in 1976 by the edict No 11[8] as the backbone of the Federal Republic's public library service. The Central Library Headquarters for each State is situated in the administrative centre of the State. The Headquarters for Kaduna State is thus situated in Kaduna. In 1976, the Central Library was supported by eight branch libraries. Currently, there are twelve branches plus two under construction. The central library has expanded since it was first opened. Extra reading and studying accommodation has been added inside and outside. Public libraries in Nigeria are generally crowded, with students - adults and those of school age, studying for examinations. Public library bookstocks generally consist of textbooks and reference works, with fiction at a minimum. Children and youth sections are usually well-stocked - such literature is used also by adults learning to read and write. KSLB also holds and is developing a collection of local materials and information[9].

g) National Educational Technology Centre, Kaduna (NETC)

This centre opened in 1957 as aSchools Broadcasting Unit. This remains its major function. The Centre was visited because it also runs training courses for teachers, librarians and other interested groups, on audio-visual media, tailoring courses to meet particular needs. Computerization and automation are not covered but, nevertheless, the Centre fulfils an important role in advocating and preparing people for the use of new or different technologies. There is a small library, housed in a single room, the major purpose of which is to

support staff in their use of audio-visual media or in their preparation for the running of training courses. Newspapers and journals are taken. There are multiple copies of standard texts and reference works on audio-visual matters[10].

3.4 Results of Survey

Fairly detailed responses to the questionnaire were obtained from the six libraries visited. Of the three libraries where questionnaires were left for completion one, the National Library of Nigeria (NLN), responded.

3.4.1 Stock

The size of monograph and serials holdings in each library was determined and where possible the size of the annual budget of the library was sought. The results are shown in Table 3.1 below.

TABLE 3.1: Stock

Name of Library	Monographs		Serials			
	Number of Volumes	No. of gifts/ exchanges p.a.	No. of bound volumes in library	No. of current titles	No. of gifts/ exchanges p.a.	Annual budget (1983/4) in Naira
BUK*	86,031	-	32,206	2,000	-	-
IU	365,000	500	-	6,322	400	40,520
JOS	84,863	482	15,807	1,964	23	40,000
KP	50,000+	-	-	254	-	132,000
KIL	292,892+	-	-	7,000	-	750,000[b]
LBKS	90,000+	-	-	200	-	-
NLN	252,058	1,014	6,549	2,685	-	-

Notes: Source: data obtained from responses to questionnaire (Appendix 1)

- \- indicates no figure given
- * for abbreviations here and in subsequent tables, see Appendix 2
- a Gift of N200,000 received recently for development of a particular collection
- b This figure was to be divided between four libraries of Ahmadu Bello University

Although the one public library (LBKS) had only 90,000 volumes it has the largest potential number of readers. This may indicate the present role of the public library - serving mainly as a place of private study and reference rather than lending. The polytechnic library was the smallest in terms of book stock although its annual budget would not appear to be the smallest. The figures for the annual budget are not reliable for comparative purposes.

All the libraries visited reported a decrease, over the past three years in the number of books purchased and serials subscriptions upheld. One of the libraries had benefited from a substantial monetary gift which is being used to develop a particular collection. Lack of funds was given as one reason for the decrease in the number of acquisitions reported. Certainly, the economic recession since 1981/82 has affected libraries adversely in terms of staffing and collection development. Another problem results from the poor state of indigenous book production and publishing. Although efforts are made to obtain materials locally where possible, much reliance is still placed on foreign publishers and suppliers (see 2.8.1). Hence, the austerity measures imposed by the government, leading to the non-availability of foreign exchange and difficulties obtaining import licences, have made it even more difficult to spend available funds.

3.4.2 Staffing

a) Numbers

It was found, during informal interviews with members of staff of the libraries visited, that a major problem affecting staffing levels had been retrenchments and freezing of posts since the austerity measures were introduced in 1981/2. The effect of these on morale has been severe, as increased pressure has been placed on remaining staff.

Table 3.2 shows the number of staff at the libraries surveyed and the latest qualifications held. Figures given should not be taken as precise figures but as indicative of the size of staff.

TABLE 3.2: Number of Staff and their Qualifications

	BUK	IU	JOS	KP	KIL	LBKS	NLN
Non-professional	48	55	18	28	27	167	-
Para-professional	18	30	9	14	-	28	25
- Certificate in Library Studies	-	0	5	11	-	-	-
- UG Diploma in Library Studies	-	30	4	3	3	-	25
Professional	16	26	15	11	12	8	76
- BLS	-	12	9	8	-	-	4
- PG/Higher Degree	5	14	6	3	4	2	72
Number of degrees obtained in UK/USA	3	2	4	1	-	2	-
Total Number of Staff	82	111	42	53	39	203	101

Source: data obtained from responses to questionnaire (Appendix 1)
- indicates no figure given

The figures for the Library Board of Kaduna State (LBKS) require some explanation. The figure for non-professional staff refers to the number of staff employed in the twelve branches of the state library system while all eight professional staff are based at the central library headquarters, Kaduna. It is interesting to note that while the Kashim Ibrahim Library has only a slightly smaller collection than has IU library, it has fewer than half the professional staff, and fewer non-professional staff than in the IU library. Looking at a staff:student ratio (taking the total number of staff and total number

of monographs and bound serials), some of the figures are high. The outstanding exception is that of the Kashim Ibrahim Library, ABU, where the ratio is very low. One explanation may be that, as suggested during the course of a visit to the library, the library is understaffed particularly when compared to others of similar size within Nigeria. It was suggested also that some libraries are over-staffed.

b) *In-service Training*

All the libraries surveyed offered opportunities for continuing education and training although arrangements varied from regular in-service training courses for all levels of staff to opportunities for part-time study or full-time study leave. Table 3.3 gives an indication of the type of facilities offered at the libraries.

In most cases, details were not given other than that the schemes were related to library procedures or issues and, for in-house schemes, were related to the particular department in which the member of staff worked.

One of the libraries stressed the training of junior staff in an effort to decrease the rapid turnover rate of staff at this level. This library (Jos) also encourages regular sectional meetings to promote awareness of the aims and objectives of each section and is also working on job descriptions for all levels of staff.

Awareness of the continuing and increasing desire for higher qualifications means that librarians are concerned to attract and retain high quality staff at all levels. In-house training schemes are regarded, generally, as very important in terms of promotion prospects and for the boosting of morale.

TABLE 3.3: In-service Training Facilities and Opportunities

Library	Training Facilities Officered	Duration
BUK	In-house training schemes particularly for non-professional staff, in conjunction with Adult Education Department, BUK.	6 months part-time
IU	No details but training programmes and opportunities exist for all levels of staff; short courses	
Jos	In-house training schemes for para-professional staff. Sponsorship for professional study subject to availability of funds or study leave without pay	1 year and 2 years part-time
KP	In-service training offered to para-professional staff - Library Assistant's Certificate Course, offered by College of Administrative and Business Studies	3 months full-time
KIL	All levels and grades. In-house training schemes for promotion. Study-leave without pay granted. Opportunities to study part-time MLS at Department of Library Science, ABU; short courses open to outside visitors also.	Varies
LBKS	In-service training - induction courses for para-professional. Regular study leave and sponsorship for two librarians at each grade, each year. Short courses	Varies
NLN	Part-time study; in-house training; short courses - no details	Varies

Source: data obtained from responses to questionnaire (Appendix 1)

Recently, fewer scholarships for study abroad have been available and obtaining leave without pay has become very difficult.

One of the libraries visited, KIL, had a policy of registering any member of staff with suitable experience or qualifications for the part-time MLS course offered by the Department of Library Studies ABU. Now, however, the number of part-time students who can be accommodated on that course has fallen due to the increase in the number of full-time students. The same library runs a varied programme of short courses throughout the year, many of which are also open to other institutions. These courses cover such topics as collection development and bibliographic services but none covers computer-related topics.

Kaduna Polytechnic Library takes advantage of the course offered by the College of Administrative Studies, Kaduna Polytechnic and members of staff are encouraged to enrol for this course if relevant to them, leading to the award of a Library Assistant's Certificate (after three months).

The one public library visited, KSLB, has a continuing education policy of sending staff on appropriate courses and each year aims to enrol at least two on courses at different levels, that is at Diploma, Bachelor's degree, and Postgraduate degree level. It also has its own in-house training schemes particularly orientation and induction programmes for new recruits. KSLB also has a legal responsibility to run courses on general library principles for organizations who request such training, including private companies and government departments.

Little information was gleaned about exchange visits although Ibadan University Library has had at least one exchange visit with a member of Loughborough University of Technology Library since 1976 and has

Union Catalogues

National Union Catalogue (NUC)

A project was started in 1965, to produce a National Union Catalogue (NUC)[11]. Initially the National Library of (NLN) plus three other libraries were involved while, by 1983, there were fifty eight participating libraries. However, no retrospective cataloguing was carried out and the Civil War caused the loss of at least sixty thousand volumes from the University of Nigeria at Nsukka and Enugu, records of which were not removed from the Union Catalogue. Nigeria was divided into eight zones, each one of which is responsible for particular subject areas and for developing and maintaining a core collection in these areas. It was suggested, during the course of interviews, that librarians were sceptical about the feasibility of producing a Union Catalogue because of the adverse effects of the Civil War, the problem of communications and the difficultyof maintaining existing collections quite apart from developing core collections in specific subject areas. However, the NLN is currently in the process of implementing plans to automate the NUC.

Table 3.5 shows the number of libraries holding, or with access to a copy of the NUC and the National Union List of Serials (NULOS) plus access to any other Union Catalogues or lists.

TABLE 3.5: Access to Union Catalogues and Union Lists of Serials

	Union Catalogue			Union List of Serials		
	Local	National	Automated	Local	National	Automated
Number of libraries holding/ with access to ... (Total number surveyed 7)	4	3	0	2	4	1

Source: data obtained from responses to questionnaire (Appendix 1).

The table shows that only three of the libraries actually have access to a copy of the NUC, currently. No conclusions can be drawn from these limited results since the libraries surveyed represent only a small proportion of the total number of libraries participating in the scheme. However it was found in a more comprehensive survey carried out in 1980/1 that only "a very small proportion of libraries possess or have access to, union catalogues, either local or national..". The writer was referred to a survey of library and information services in English speaking West Africa[12].

Local Union Catalogues

These were found where libraries were on multiple sites or where other faculties, departments or institutes of an establishment had substantial collections. Three of the multi-site libraries kept the copy of the local union catalogue in the main library for reference purposes only. Users of the main library in each case would be allowed access to any materials recorded in the Union Catalogue (subject to particular restrictions, for instance if the book was in reserve book stock). Two of these - the Polytechnic Library and the Kaduna State Library Board had centralized processing arrangements where the main library was responsible for acquisitions and cataloguing and distribution of items to the branches. The remaining two received a copy of the catalogue entry for each item processed by their branches.

3.4.4 Serials

In five of the libraries visited, the Kardex system was used for the recording of serials. Major problems with serials control tended to be postal delays, non-arrival and non-availability of parts but the overall stated problem was lack of foreign exchange and the inability of libraries to pay subscription dues on time. The majority of serials are purchased from abroad. One library, Kaduna Polytechnic, reported the loss of fifty serials titles over the last year due to increases in cost.

At one library, the serials function was partly automated and working satisfactorily. Use was made of the mainframe (model not specified) in the computer centre. Another library made use of a word-processor from one of the University departments to produce a list of serials and the remaining libraries all typed their lists of serials.

Union Lists of Serials

National Union List of Serials (NULOS)

Two of the libraries visited plus the NLN kept a copy of the NULOS for reference purposes. The 1977 edition appeared to be the most current although supplements are supposed to be produced to keep the record up-to-date. Approximately fifty libraries are believed to be involved in the production of the NULOS.

Local Union Lists of Serials

A local union list of serials was found at only two of the libraries visited. Such a list was produced on computer at the Kashim Ibrahim Library between 1976-1983 until the university computer broke down. Such lists are planned by two of the multi-site libraries - Kaduna Polytechnic and Kaduna State Library Board which is at present working on a local union list of serials. Reasons for their non-existence to date were given as insufficient staff and resources. It may also be that problems commonly associated with serials control makes the compilation of such lists unrewarding, for instance non-arrival or delay in receipt of parts of volumes.

3.4.5 Inter-library Loans

Figures obtained for inter-library loans transactions suggest that the inter-lending system does not function well. Definite figures were available from only three of the establishments surveyed (Table 3.6).

TABLE 3.6: Inter-library Loans

Library	Within Nigeria (1983/4) Number of Items		Outside Nigeria (1983/4) Number of Items	
	Supplied	Obtained	Supplied	Obtained
IU	55	4	-	-
KP	120		-	-
NLN	41	68	4	22

Notes: - indicates no figure given
Source: data obtained from responses to questionnaire (Appendix 1)

Interlending occurs mainly within Nigeria and it seemed, from inter - views, that librarians encouraged inter-lending only within their particular spheres of influence. For instance the Kaduna State Library Board would rarely lend material to institutions outside that state and interlending is only practised between branches. There seemed to be great reluctance to lend material out, which is understandable in the light of problems faced by libraries in the area of collection development. It became clear that students or researchers requiring certain material known (or thought) to be held at a particular Nigerian Library were encouraged to visit that library in person - firstly because the chances of receiving the item on inter-library loan were slim and secondly because the time taken to deliver items would be great. It seems reasonable to suggest that access to the NUC and NULOS being fairly limited also helps to account for the low use of inter-library loans. Should librarians become convinced of the worth of the NUC and NULOS perhaps demand will grow. Many of the librarians interviewed also suggested that, for an interlending system to work, the participating libraries must develop and maintain a recognizable core collection of items. Indeed it has been stated that many libraries have very valuable holdings, for instance of Africana and Nigeriana, which are not well documented.

One solution to the problem of document delivery and access to different libraries has been the development of courier services. There is a regular courier service between Jos University Library and the KIL, Zaria which runs every two weeks. The service carries requests, documents and even students or researchers wishing to use the other library for reference purposes. Such a service ensures that books and requests reach the intended destination even if its frequency is limited.

3.4.6 Acquisitions

Annual budgets for the financial year 1983/4 ranged from N40,000 to N750,000, the latter sum to be shared between four libraries (Table 1). In each case, the libraries had suffered a decrease in the funds available for book purchases. This decrease was exacerbated by the government restrictions on imports and foreign exchange.

Centralised purchasing is carried out in three of the libraries - Kaduna Polytechnic, KSLB and NLN on behalf of their branches. Selection is generally made by professional subject librarians, on the basis of current requests and suggestions, as well as the use of published catalogues.

Exchanges occur only an ad hoc basis in most instances, although the NLN reported having exchange arrangements with various academic and special libraries within Nigeria and five establishments outside Nigeria - British Library, Library of Congress, Boston University Library, International Cultural Society of Korea and La Trobe University. One of the libraries visited reported making a special effort to collect local publications as potential exchange material.

Gifts are appreciated greatly and may take the form of one volume or of a whole collection. The Kashim Ibrahim Library recently received

an important collection of gramophone recordings. The Library of Bayero University Kano has recently received a gift of N200,000 from the Bank of the North to develop its collection of materials on management.

Problems associated with acquisitions were mainly to do with finance, and foreign exchange particularly. It has been estimated that seventy-five per cent of publications used in Universities came from abroad. Import regulations make it very difficult to keep up with serials subscriptions, also the granting of import licences could take up to eighteen months.

3.4.7 Circulation/Loans

The majority of the libraries visited used some form of the 'Browne's' system modifying it to suit local needs. The National Library of Nigeria reported using the 'Bookamatic' system. The larger libraries felt that the number of users would justify automation of the circulation function, while some of the smaller libraries felt that their numbers were manageable on a manual system even though these were not without their faults. Typical problems in circulation control were inaccuracies caused by human error or, in some cases, by not following procedures. Two of the libraries suggested that the fall in staffing levels meant that there was inadequate supervision of junior staff running the circulation control desk on a daily basis and this meant that certain procedures were not followed closely.

At the time of the visit, none of the libraries used an automated circulation system, although the Kashim Ibrahim Library had attempted to automate this function in 1984. The project failed partly due to unstable power supply which made the equipment malfunction, and lack of suitably qualified staff. The mainframe of the university computer centre was used. It is planned to attempt again to automate the circulation system. Ibadan University library also plans to automate its circulation system in the near future.

3.4.8 Services

All of the libraries but one produce some type of bibliography or reading list as a matter of course to promote and publicize library holdings. Six of the seven libraries reported doing literature searches and information retrieval on request. It was suggested during interviews, that the pressure on subject librarians to offer such services was so great that their other duties often suffered. One of the libraries had to curtail such services in view of the staff shortages.

Abstracting and indexing were available in three of the libraries. Others stated their willingness to offer such services but indicated that their ability to do so was constrained mainly by the lack of staff. Table 3.7 gives an indication of the range of library services offered in the libraries surveyed.

TABLE 3.7: Services

Service	Number of Libraries Offering each Service (7 Libraries Surveyed)
Bibliographies/reading lists	6
Information retrieval/ literature services	6
Current awareness/selective dissemination of information (SDI)	5
Abstracting/indexing	5
Translating	3
Other	-

Source: data obtained from responses to questionnaire (Appendix 1)

All of the librarians interviewed stated that they would like to improve the range and effectiveness of their services offered in their libraries and many felt that the adoption of new technology (be it in the form of

word processors or automated systems) would help them in this regard.

3.4.9 New Technology and Automation

It was the intention of the Author to find out the level of new technology existing and working in each of the libraries surveyed, as this was seen as one indicator of the readiness and ability of libraries to incorporate computer technology into their environments. Table 3.8 shows the results and it suggests that the level and effectiveness of technology currently employed is, in fact, quite low.

TABLE 3.8: New Technology

Type	Number of Libraries with at least one example of each type in working order (7 libraries surveyed)	Comments
Telephone	6	One of the libraries has no outside line
Telex	1	Local maintenance arrangements in all cases reported. Lack of spare parts, paper and ink were common problems
Photocopier	6	
Typewriters		
- Manual	5	
- Electric	3	
Word processor	3	One of these used the word processor for producing and updating a list of serials and only occasionally for correspondence. In the other libraries it was used mainly for administrative purposes
Duplicator	3	Lack of spare parts, paper and stencils reported.
Audio-visual equipment		Usually loaned out to staff or postgraduate students only
- video, tape-records	3	

/Continued...

TABLE 3.8 ... continued

Type	Number of Libraries with at least one example of each type in working order (7 libraries surveyed)	Comments
- projectors, tape-slide equipment, TV	3 5	Usually used by library staff but sometimes loaned out to teaching staff
Microform readers	6	Problems with spare parts, especially bulbs
Computers		
Hardware		
- access to main-frame	3	IBM 1620; IBM 370/135 (IU), CYBER 72 processor; ICL 1901A (ABU) HEWLETT-PACKARD (unspecified model) (BUK)
- plans for installation		Unspecified model (NLN)
Software - own	0	None of the libraries reported having evolved their own software although at IU Computer Centre staff produced program for serials automation

Source: data obtained from responses to questionnaire (Appendix 1)

Shortage or lack of paper has affected the use of duplicating machines and photocopiers quite apart from problems of maintenance and availability of spare parts. All the libraries attempted to be self-sufficient in terms of repairs and maintenance but, obviously, certain spare parts still had to be bought from original suppliers thus accentuating the continuing dependency on the industrialized countries and the lack of local manufacturing services. Access even to telephones varied and at Jos University Library, discussions on the introduction of an intercom system

are in progress. Presently, almost all of the libraries (and other types of organization in Nigeria) rely heavily on messengers for communication.

Regarding automation, three of the libraries visited had no access at all to computer facilities while the remaining three had access to mainframes housed in the computer centres of their institutions (Table 3.8). The NLN reported having its own computer in working order - model and type unspecified but Elemide reported in 1983 that there were plans to instal an IBM 370/145.[13] It is unclear whether this is actually the machine in question.

Automation projects have been thwarted on the whole by various factors, including the breakdown of computers either due to overload or wear and tear, the lack of space on the computers available, the lack of staff trained sufficiently to pursue such projects wholeheartedly. Table 3.9 gives an outline of automation projects in the libraries surveyed.

One problem expressed during the course of interviews was the relationship between the computer centre and the libraries concerned - it was clear that the libraries lacked staff able to communicate clearly with computer centre staff. Such communication is vital since few libraries would have the resources to purchase their own equipment. Most librarians interviewed spoke in terms of mainframes and minicomputers rather than microcomputers, although some were aware of the work of one lecturer in particular who has researched into and produced programs for housekeeping routines on a microcomputer[14].

TABLE 3.9: Automation Projects

LIBRARY	FUNCTION(S) AUTOMATED	DETAILS	PERIOD OF AUTOMATION	PLANNED AUTOMATION	DETAILS OF PLANS
BUK	Serials	Partially automated. Quarterly list of serials holdings produced. Mainframe in Computer Centre of University used. No terminal in Library because it is too far from Computer Centre	To date	Subject catalogue	Proposal made; feasibility study carried out - awaiting confirmation from Computer Centre. To be used for information retrieval - in what way was not specified
IU	Serials	Used program written by Computer Centre staff. No firm agreement with Computer Centre and the project was abandoned after two years because of this and computer breakdown	1973-5	Catalogue(s) Circulation	For the purposes of National Union Catalogue project. Feasibility study carried out. Lack of funds is a major constraint
Jos	-	-	-	Yes	A committee, due to report Autumn 1985 has been set up to investigate the potential for automation. New premises to be occupied 1985/6 offer space for own mainframe - funding seems to be the main problem. No Computer Centre on campus
KP	-	-	-	-	There are no plans to automate due to lack of funding, qualified staff, space

/Continued....

3.5 Conclusion

A basic description of seven relatively important libraries in Nigeria has been given. An overview of the application of new technology in these libraries has also been presented. In each case, librarians were well aware of the implications of new technology, although their ability to respond to the challenges posed varied.

The preceding description of library functions has shown that Nigerian library services have immense obstacles to overcome, some of which do not exist in the industrialized countries. When the general level of technology (that is, equipment used to do certain tasks) in the library is examined, this is found to be extremely low. The existence of outside telephone lines is in itself a bonus, quite apart from telex links. Typewriters were found to be the bedrock of each library, vital for organizational purposes and the provision and dissemination of information. A possible advance on these would be the word-processor and, indeed, these were in use. Duplicators and photocopying machines were found but often these were not in use either because they had broken down or because there was no ink or paper available. Audio-visual equipment, where available, was generally in store so that access was limited. It can be deduced that the level of familiarity (of both staff and library users) with equipment, taken for granted in the North, will probably be very low in general. It may, then, be argued that the most fundamental problems should be addressed before even considering library automation.

From the interviews and responses to the questionnaire, it soon became clear that Nigerian librarians are very interested in library automation. Only one librarian, at Kaduna Polytechnic, could see no possibility whatsoever for automation at his establishment, mainly due to lack of suitably qualified staff, funds and accommodation.

Most considered library automation to be 'a good thing' both for the convenience of the readers and for the enhancement of library services. It may also be that automation projects are of high-prestige value and they certainly occupy a prominent place in plans for expansion or to moves to new premises.

The lack of suitably qualified staff was frequently given as a constraint to the introduction of automated library services although, as has been shown (3.4.2), many of the libraries seem well staffed. Certainly, only aminority of staff have been educated abroad (although not a small minority) and thus may be assumed to have at least rudimentary knowledge about computers and their applications. Even those educated abroad will find it very difficult to reinforce what they have learned on returning home, due to the lack of comparable facilities. As for sub-professional staff, it would seem that their introduction to new technology applications is nil at present and this may be explained by the lack of facilities and the absence of training programmes. Time and again, along with other constraints expressed, the lack of staff was given as a major obstacle to successful automation.

Chapter 3: Notes and References

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12. B.Y. Boadi, Library and information networks for resource-sharing in developing countries with particular reference to English-speaking West Africa, PhD Thesis (unpublished) Loughborough University of Technology, 1981.

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14. The lecturer in question is Mr G. Alabi, Department of Library Studies, Ibadan University.

CHAPTER 4

POTENTIAL FOR, AND CONSTRAINTS ON, LIBRARY AUTOMATION IN NIGERIA

4.1 Introduction

In this Chapter, an overview is given of the major factors which may facilitate or hinder the introduction of computers into library services, particularly in Nigeria. Some of these factors may be important in the broader context of developing countries but they will, almost certainly, be influenced by local considerations such as state of development, government support and so forth. The potential advantages and disadvantages of the computerization of library systems will be outlined in general terms and requirements for successful automation will be suggested. Finally, constraints on library automation will be considered, in the light of the foregoing and of earlier Chapters.

4.2 Potential for Library Automation in the Developing Countries

Chapter 1 gave an indication of the possibilities that IT can offer to library and information workers for the enhancement of services and the introduction of new services (1.4). Computer technology for library services, from the most simple to the most complex, is now available. For the developing countries, access to the technology and adaptation of it are the most pressing problems. Jaime Robredo[1] has mentioned three basic categories of factors requiring attention - *"technological", "infrastructural"* and *"human and environmental factors"* [2]. If the introduction of automation is to be successful then these factors must be taken into account and analyzed in relation to the particular environment concerned.

Theoretically, developing countries could benefit from computer advances in the North, perhaps in areas such as telecommunications where

developments for rural and isolated regions of the industrialized countries have reduced the effect of geographical distance as an isolating factor. Such advances could be adapted to the needs of developing countries in cases where similar problems are identified, although the mode of introduction may also have to be adapted[3].

In Nigeria, there seem to be few purely technical problems why library automation may not be possible - unstable electricity supply being the overriding one. Certain library services could be improved fairly simply, in theory, by automation. Assessing the extent and use of library automation in Anglophone West Africa, Boadi and Havard-Williams[4] suggest that, presently, computers in this region are *"under utilized"* despite the existence of sufficient staff, competent enough to undertake *"relatively simple computer processes"*. Nigeria and Ghana are the two countries in this region which have the most immediate potential in this respect[5].

Although a holistic approach to the introduction of new technology would be ideal, it is appreciated that, in practice, efforts of individuals and individual organizations are most likely to be pursued, particularly in this age of microcomputers. This should be encouraged because as these efforts proliferate then needs can be expressed more cogently and demands are more likely to be met.

4.3 Advantages and Disadvantages of Library Automation in Nigeria

It is considered that the advantages and disadvantages of library automation depend, to a large extent, on the initial reasons for and objectives of automation. It is assumed that a general aim, in most cases, will be to improve the efficiency and/or effectiveness of a service. Specific objectives will vary from institution to institution but, in general, objectives will determine criteria for efficiency and effectiveness. Present and future needs must be taken into account. Any project must be carefully planned and automation justified. Ideally,

a thorough feasibility study should be carried out. Cost-benefit and cost-effectiveness studies are also recommended. With these factors in mind, Tables 4.1(a) and 4.1(b) show, respectively, some of the potential advantages and disadvantages of library automation in Nigeria. The sources of data for these tables are the literature in general[6] plus the Author's own observations. Thus, the factors covered are based largely on subjective considerations and are, by no means, exhaustive. It is also considered that in developing countries, depending on the situation, some of the factors given here as advantages may in fact be disadvantages while the reverse is also true.

4.4 Requirements for Successful Automation

As stated earlier (4.2.2) the reasons for automation must be clear from the outset. A rigorous analysis of the existing system is required, noting its faults and its good points. The objectives of introducing an automated system should be stated and these should give rise to the criteria against which its performance is to be judged. Advance planning is crucial, especially where resources are limited. Resources available should be listed and quantified if possible. Efforts should be made to restrict plans to clearly defined limits. Muller[7] enumerates four basic criteria for the successful introduction of computers into any work situation:

a) general policies and plans should be stated
b) plans for hardware and software selection and acquisition should be stated
c) plans for hardware and software installation and implementation should be stated
d) operating policies and plans should be stated[8].

These criteria will be 'borrowed' as subheadings for the remainder of this section (4.4).

TABLE 4.1(a): Some Potential Advantages of Library Automation, for Library Managers, Staff and Users (particularly in Nigeria)

Those Affected	Potential Advantages
Library managers	Timely opportunity for analysis of existing system and, hence, improvements. Opportunity for analysis of existing services - their usage, effectiveness and, hence, improvements. Increased access to existing data (for management information and control purposes, administration) Introduction of new services or better execution of existing services. Reduction in number of staff employed, saving costs. Better opportunities for access to data outside the particular library service. Promotion of image of profession vis-à-vis other professions
Staff	May lead to creation of new jobs or responsibilities, may increase job satisfaction. May open up training opportunities. Enhanced status.
Users	May alter image of library, particularly for regular users. Services may improve - efficiency/effectiveness.

Source: Author's observations

TABLE 4.1(b): Some Potential Disadvantages of Library Automation, for Library Managers, Staff and Users (particularly in Nigeria)

Those Affected	Potential Disadvantages
Library managers	Increased responsibilities - need to justify and obtain funding for high initial investment plus recurrent costs. Pressures to succeed can be very great - failure of the project may preclude a second chance. Need to instigate comprehensive training and/or familiarization programmes for all staff, also user education programmes. Need to select, acquire and instal equipment under adverse conditions (lack of literature, experience, user groups) Need to prepare staff for automation and involve them in plans. Need to anticipate changes in government policy, economic climate and so on,and be able to respond accordingly.
Staff	Resistance to use of computers - fear of machines, fear of losing jobs. Frustration of working with less than well-designed systems. May affect health.
Users	Implementation stage may cause inconvenience May resist use of computers - may put some people off. It may be that only a minority will benefit.

Source: Author's observations

4.4.1 Policies and Plans

The observations of the Author, during the visit to Nigeria mentioned earlier (Chapter 3), would suggest that, in the late 1970s and early 1980s there were substantial investments into library services in Nigeria. Plans, models and photographs of extensions and new premises were seen. However, the political and economic climate of the 1980s has meant that many of these plans remain unfulfilled to date. It does seem that in Nigeria, policy makers do recognise the importance of library services and are prepared to promote library automation projects, given the resources. In a wider context, however, it has been suggested that the availability of funds for telecommunications and related projects is not necessarily the pressing factor in the developing countries[9].

If high level policy- and decision-makers can be convinced of the benefits of automation then funding is more likely to be made available. Certainly, this would appear to be the case in Nigerian university libraries which are, on the whole, held in high regard by their parent organizations. The role of central government is also important because general policies can aid or hinder efforts at automation. The effects of policy changes must be considered. Resistance to innovation may be high, especially in a developing country where traditional norms and values are challenged at the same time as working practices. New management methods and styles may be required. In addition, policies and values from outside may be introduced, accompanying gifts, exchanges, the sale of equipment and the dumping of equipment. Examples of this may be difficult to isolate and identify and may, indeed, be obscured deliberately.

4.4.2 Plans for Hardware and Software Selection and Acquisition

Before automation is considered, it is advisable to analyze the existing system and its environment. Managers should be aware of factors which may change the structure of an organization (both formal and informal) and should also be aware of developments in the wider environment which may have an effect[10]. If information is not available or easily accessible, the ability of a manager to make appropriate decisions is curtailed. There are manuals, guides and promotional publications which can aid a manager in making such decisions on hardware and software. Managers are encouraged to seek help, in the industrialized countries, from professional associations, suppliers, consultancy services and other users for advice, demonstrations etc. They can attend conferences, short courses but most of these sources of aid are not readily available in the developing countries. In Nigeria there are as yet no user groups (known of by the author). This notwithstanding, librarians in the developing countries must exploit what is available to the fullest - needs must be clearly expressed, systems analysis must be carried out, feasibility studies made, improvements made where possible.

Regarding the acquisition of hardware and software the library manager should maintain a dialogue and relationship with funder and supplier. Choice of suppliers may be limited especially in developing countries but they should be reliable and offer maintenance and support facilities, agreed upon in advance. Any peripheral equipment, such as cables, paper etc. should be purchased at the time of acquisition, along with spare parts, tools, manuals.

4.4.3 Plans for Installation

A timetable should be produced and adhered to as closely as possible. The physical location for the equipment should be prepared. Staff should be aware of plans and critical dates - uncertainty could cause

ill-feeling. If the equipment is to be visible to users, they, too, should be informed of the state of events. Preferably, on arrival, the whole system should be erected in the presence of staff who will be using it. Opportunity should be given for maintenance staff, particularly, to be actively involved in setting up the system. In some of the libraries visited recently by the Author (Chapter 3) it was notable that, in plans for new premises or extensions, provision, in terms of space,was made available for future computer installations.

4.4.4 Operating Policies and Plans

Regular maintenance checks should be arranged and a supply of spare or expendable parts kept. An account should be maintained of usage, problems, maintenance records. Problems should be diagnosed as they occur.

Training programmes for different levels of users should be instigated, perhaps using special training packages. The equipment should be utilized to its fullest extent, so that it is seen to be making a positive contribution to the organization, thus justifying the investment. The environment in which the equipment is housed should be kept stable - all staff should know basic maintenance procedures such as covering up or protecting certain parts of the equipment from dust or draught. Security aspects should be considered,of the equipment and of data stored.

4.5 The Constraints

This section discusses constraints on library automation as related to the present study of Nigerian libraries. Table 4.2 gives a skeleton list of factors which may give rise to constraints. These factors are discussed more thoroughly in the following text.

TABLE 4.2: Potential Constraints on Library Automation in Developing Countries, with Special Reference to Nigeria

Potential Constraints	Conditions in Nigeria
Availability of technology	Limited computer facilities are over-stretched. Reliance on foreign companies and products. No indigenous production of hardware; little R&D potential for software production
Economic factors	Large pool of unskilled workers. Labour intensive industries. Little capital for long-term investment. High cost of participation in international activities. Stringent austerity measures, including import controls, restrictions on foreign exchange transactions. Reliance on oil as foreign exchanger earner.
Politics and policies	Unstable government. Military regime. Changing policies. Decision makers concentrated in Lagos. Priorities-national development, economic revival.
Information infrastructure	Unstable and unreliable electricity supply. Communications still under development. Very limited access to international telecommunications networks. No library standards. Hard copy collections in libraries - poor. Little informal information flow; weak professional organization; no regular professional journal; no coordinated research.
Socio-cultural factors	25% literacy rate (in English); large Hausa speaking population. Wrong expectations of technology; ignorance and fear of technology. Free services not appreciated. Withholding of information; secrecy; aura of importance of professionals. Tendency to cover-up faults, failures.

/Continued...

TABLE 4.2: continued

Potential Constraints	Conditions in Nigeria
Managerial and organizational factors	Inflexibility of hierarchical organizations. Little experience of team and participative management. Systems analysis may be avoided.
Staffing	Insufficient number of trained personnel at different levels. Insufficient opportunity for continuing education Few specialists - particularly in science subjects, information science, languages, systems analysis.

1. Beth Krevitt Eres. Transfer of information technology to less developed countries: a systems approach, Journal of the American Society for Information Science, 32, 3, 1981, 99.

Source: Table adapted from Eres[1]. Includes data from M.D. Ingle, N. Berge and M. Hamilton, Microcomputers in development: a manager's guide, USA, Kumarian Press, 1983, passim, and data from earlier parts of this dissertation.

4.5.1 Availability of Technology

Chapter 1 discussed new technology and its international context, particularly in relations between North and South. Constraints on technology transfer to the developing countries were suggested, including the economic factor and fears of Third World governments of continued dependence. Lack of indigenous production of new technology is seen as a serious constraint although it is suggested that some of the Third World countries could develop software and equipment production[11]. Yet others have suggested that an integrated approach is required, *"...covering all areas like research and development, manufacturing, support and applications development ..."* but if such is not feasible, *"... carefully monitored imports are then required ..."*[12].

These ideas have gained momentum recently due to disaffection with the inappropriate technology which, in the past, has been transferred to the developing countries. Stover[13] suggested:

> *Few if any Western companies do technological research with the requirements of less developed countries in mind. As a result, new developments in technology are ill-suited for poorer countries.* 14

There is obviously a need for more research and development with developing countries' requirements in mind. Unless librarians from developing countries are actively involved, however, it seems that existing patterns of transfer will remain. Although the technology is available, library managers in the developing countries have little in the way of support services such as easy access to journals, promotional literature, conferences, seminars, demonstrations, strong professional associations. They are in a difficult position from which to evaluate and compare equipment and software offered by suppliers. This is a severe and frustrating constraint, of which library managers in Nigeria are well aware.

4.5.2 Economic Factors

In Chapter 2 (2.4) the most salient features of the Nigerian economic situation were described. From this, it can be deduced that Nigeria has a highly labour-intensive workforce, largely unskilled. Economic activity is concentrated in Lagos and one or two of the other state capitals. Information services are thus concentrated also. The reliance on oil for foreign exchange makes the country vulnerable to the fluctuations of the oil market - long term plans can be thwarted overnight. Stringent austerity measures, imposed since 1981, have put much pressure on all sectors of the population. Import controls and foreign exchange regulations have meant that many goods from overseas are difficult to obtain on the open market. Import licences might be granted after a wait of up to eighteen months. The cost of travelling has become prohibitive - people would often travel abroad to buy or collect items required, in preference to relying on postal or freighting services. These factors make planning, policy decision making and policy execution arduous and vague.

4.5.3 Politics and Policies

Chapter 2 contains a section (2.3) on the political situation in Nigeria. Currently, Nigeria is ruled by a military government intent on rebuilding the economy and pursuing national development policies. Obviously, library and information workers in Nigeria must be working towards the same ends and must state and prove this. There is no National Information Policy as yet in Nigeria, although efforts by professionals to achieve this end are under way. If policy makers and decision makers recognise the importance and value of efficient and effective library services then there might be more enthusiasm at that level for promoting automation.

4.5.4 Information Infrastructure

There would seem to be the will, among the majority of library professionals, to evolve a working information infrastructure.

J.C. Anafulu[15] wrote, recently, that the problem with Nigeria was that *"the apparatus for harnessing the national information resources is yet to be established"*[16].

The infrastructure of Nigeria, generally, has been briefly described in Chapter 2 (2.5). The investment by the Nigerian Government into infrastructure has been great and this has reflected its perceived importance. However, there is a long way to go. Many villages still have no electricity supply, the supply in general fluctuates - sometimes power is lost, sometimes reduced, there are occasional voltage surges and these problems will affect the working of computers - causing the loss of data or damage to the equipment perhaps. Many private firms have uninterrupted power supply (UPS), a valuable but expensive facility. Communications by post, telephone or person are still unreliable as was experienced by the Author. Confidence in these basic services is vital before long lasting, far-reaching developments can be planned.

As regards library services in particular, library shelves are bare; in some cases there have been no acquisitions for three-four years. Qualified librarians are in demand, especially librarians with special subject knowledge - languages and information science are particularly in demand. There are few cooperative ventures - problems of communication and transport hinder these. The lack of a lively professional association means that professionals are deprived of many informal and formal contacts - via meetings, conferences, journals and so on. The Nigerian Library Association (NLA) does exist but is constrained by lack of funds and lack of permanent accommodation. It does hold conferences however but participants are usually local, since travel within Nigeria and accommodation are costly and can be time-consuming to arrange. There is a lively education subcommittee of the NLA but no similar computer subcommittee. It was suggested that this was because there would be too few members for such a subgroup to be formed[17].

Automation projects thus far attempted in Nigeria have been on an individual basis. Boadi and Havard-Williams suggest that cooperative projects, particularly for acquisition and catalogue are feasible and could be worthwhile in the West African region[18].

4.5.5 Socio-Cultural Factors

As stated in 2.6 the literacy rate (English) is only twenty-five percent in Nigeria so, currently, the demand for sophisticated library and information services is limited, although computers can be applied for simple or complex functions. Some writers have discussed cultural features which may impinge on working practices, in Africa and Nigeria in particular. Amadi[19] has spoken of 'cosmetic literacy' by which he means the superficial adoption of Western-style literacy without the corresponding underlying mental changes[20]. This may lead to a certain kind of snobbery precluding managers from doing any applied or practical work - they may not expect to do such and it may not be expected of them. Such barriers are immense and may not easily be changed. Resistance to innovation may be high, especially where preparation for it is non-existent or inadequate. Computerization could increase gaps between literate and non-literate (in English) users and while this might make certain services more effective for certain users, it could further alienate the majority.

Library managers, librarians and users may have wrong ideas about or expectations of technology. Disappointment may ensue because expectations were not fulfilled. Often, automation projects are seen as high-prestige projects and may be undertaken for cosmetic reasons rather than strictly rational reasons[21]. There may be sensitivity about library operations especially where inadequacies are known to exist. These may be deliberately hidden and glossed-over perhaps by restricting access, creating and maintaining physical and psychological barriers.

The sensitive role of foreign consultants and advisers has been explored by Dosa[22]. Issues of cultural transfer and domination were raised in that paper. In Nigeria, foreign visitors are received warmly but advice theymay have offered might not be followed once the visitors have left. Similarly, traditional and customary trust and confidence in superiors rarely wavers even if rational and reasoned analysis of a situation suggests that alternative action is required.

4.5.6 Managerial and Organizational Factors

Resistance to change, based on fear of the unknown and ignorance is a common human reaction. If not managed well in a work situation, it can obstruct even the most dynamic leaders and innovative plans. Changes must be foreseen and planned for - the consequences must be foreseen.

Management styles and methods may have to change in order to facilitate innovation and respond more flexibly to changing situations. There is a need to focus more closely on causes of problems and how to deal with these rather than the symptoms. Some have suggested the idea of adaptive management meaning the identification of a situation, its improvement, the ability to learn and adapt while working and the involvement of all affected[23]. Tradition and culture may be important issues in this respect. Trends towards participative and team management may not be accommodated as easily as in a Western culture. In Nigeria, work relationships tend to be very formalized and hierarchies adhered to closely and respected. Nigerian employees are subject to many demands and pressures from extended family and close family ties and from friends, communications with whom are usually made personally rather than by telephone or post. One is expected to pay regular social calls and visits and receive guests at any time. This involves much time and management of time is constrained by such customs.

The effects of automation on human and working relationships are many. The withholding of information may contribute to an air of mystery where

simple explanations and preparation could dispel many fears. Fear of losing jobs is a real fear but, in practice, in Nigeria, it seems that job losses have occurred through cutbacks rather than investment in new equipment. Managers and staff alike should consider the potential for job creation or job re-definition as a result of automation[24]. It has been suggested that *"poor communication within organizations and between organizations and their environments (e.g. clients, the public), emerged as a major problem with growing automation"*[25]. This statement was made with reference to developing countries but could apply anywhere. Communication is often only a one-way process from the top to the bottom. As people become more confident and sophisticated they will desire more involvement; also people at the top should want feedback at least, to their decisions. Staff not involved in an automation project may feel alienated but custom may preclude them from expressing their views.

The health aspects of new technology are rarely mentioned in connection with developing countries. Industrial hazards are beyond the scope of this paper but,observed in one Nigerian University Library recently was asbestos lining falling from the ceiling. There seemed to be no concern about this at all nor about possible harmful effects of VDU's - perhaps because of the few instances of automation. Trade Unions presently are constrained by the Government.

The need to keep equipment in a stable, controlled environment may not always be appreciated and equipment has been seen scattered and uncovered - open to dust, insects, the atmosphere. In a culture where people matter most, material objects are seen as transient or temporary and are meant to be used. If they do not work, then they will be discarded.

4.5.7 Staffing

It was found from the survey reported in Chapter 3 that there was a high percentage of staff in relation to stock - many of these staff are

unskilled, employed as messengers and many are clerks, typists and administrative staff. There is a lack of qualified personnel - those employed may be overworked and subject to many frustrations. Many will have skills which are under-utilized[26]. They may not be able to have the continuing education they may desire or may be unable to initiate regular training programmes for staff under their supervision due to lack of time, teaching staff or replacements or for other reasons. There is a lack of specialist personnel also. There are few staff qualified both in librarianship and in computer studies or applications, who are vital for liaison purposes. Only those members of staff trained abroad will have had much exposure to computers and hands-on experience. If the leadership is insecure in its role as innovator in the computer field then the remaining staff will be even more so.

It has been said that the brain drain is a serious constraint on developing computer servicesin the Third World as it is those from the "top intellectual strata" who migrate to the industrialized countries[27]. Whether this trend is also apparent in the library and information world is not known but conversations with librarians in Nigeria suggested that many were frustrated and felt that they would have had more professional opportunities elsewhere.

4.6 Conclusion

The main, most apparent constraints have been outlined, particularly those that apply to Nigeria. Taken as a whole, the problems seem insuperable but when isolated, they could be tackled. Developing countries share many of the problems found in industrialized countries, but the problems are more difficult to solve mainly due to the extreme lack of trained personnel not just in library and information work but in computer services, management consultancy and other support services taken for granted in the North. Computers are instruments and must be seen as such. In the South there is a need to explore more fully how they can be used, how to facilitate their use and how to train more effectively for their use. Technical expertise is required but

so, also, is more discussion on the implications of computers at work - the human effects. Currently, introduction of computers is severely constrained by social and cultural factors. A reasoned approach is vital in order to dispel fears. Systematic education and on-the-job training would probably help to mitigate many of the basically personnel-related issues and constraints.

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CHAPTER 5

EDUCATION AND TRAINING FOR NEW TECHNOLOGY - NIGERIAN LIBRARY SCHOOLS

5.1 Introduction

It has been shown, in Chapter 3, that Nigerian librarians are interested in and, to some extent, aware of the applications of new technology to library and information services, even if they are currently unable to introduce such technology successfully into these services. It has been suggested that the lack of qualified personnel is one major constraint on the full or even partial implementation of new technology.[1] This was also shown in Chapter 4. In view of this, it was considered pertinent to investigate the attitudes of library school lecturers in Nigeria towards new technology and its placing within the curriculum. In this chapter, a brief background to the Nigerian library education system is given, drawing out some of the more salient issues. This is followed by the report of visits to three of the six Nigerian library schools currently in existence.

5.2 Background to Library Education in Nigeria

It is an accepted tenet that well trained and educated library workers form the foundation of an effective library service anywhere. It is assumed that effectiveness and efficiency are desired goals of any library service. Appropriately qualified and committed personnel will only be attracted to the profession if standards of library education are high and, if the *"library education system is geared towards meeting the manpower needs of services"*[2]. It is now twenty-five years since the establishment of the first Nigerian library school. Developments since then have received much attention in the literature of, for instance, A. Akinyotu, W.O. Aiyepeku, D.S. Obi, F.A. Ogunsheye and B.C. Nzotta[3]. Particular attention is drawn to the latter article which is the most

recent. It gives a brief chronological sketch of the library education system in Nigeria, the current state-of-the-art based on a survey of all Nigerian library schools and suggests future trends and developments.

It is proposed here to examine library education thematically rather than chronologically.

5.2.1 International Aspects

Nigerian library education has, in the past, been dependent on Western models, standards and facilities. The issue of overseas training has been an important issue, particularly over the past ten years as the library education system in Nigeria has grown and matured. It is still reckoned that, even in Nigeria, there are insufficient library schools although no hard figures are available[4]. Thus one of the common reasons given to justify study overseas is the lack of facilities in terms of library schools, staff, resources, access to new technologies etcetera. There are, undoubtedly, advantages and benefits to be gained by study abroad. Bramley[5] has suggested that the facilities available in industrialized countries should be utilized as fully as possible by students from developing countries[6]. Another writer states:

> *It is recognized that there is an urgent need for access outside national or narrowly regional boundaries either for basic professional courses or for short courses for updating specialization.* 7

On the negative side, not all courses offered overseas will fulfil all expectations and students may not always find the most appropriate course for their particular stage of professional achievement. Bramley has also suggested that overseas courses may hinder the development of indigenous library schools[8]. Akinyotu is firmly against the attendance by Nigerians at *"foreign library schools for courses which are locally*

available"[9]. Certainly, in recent years the government of Nigeria has restricted grants for study abroad particularly on courses which are available locally. This has culminated, in July 1985 with the most radical step yet, as reported in the Guardian.

> *More than 4000 Nigerians at British Universities ... will be forced to give up their undergraduate courses as a result of the Nigerian government's decision last week to stop scholarships, grants and foreign exchange clearance of private funds for Nigerians taking first degrees abroad.* 10

Postgraduate and higher degree awards are still theoretically allowed, although many students have experienced varying degrees of difficulty over the last few years. This is not to say that the Nigerian government is attacking only British educational establishments, for the same report goes on to say that *"education in Nigeria is also suffering"*[11]. It is clear that with the increases in fees for overseas students, and the foreign exchange restrictions on Nigerians, indigenous efforts will have to be pursued. The idea of promoting regional schools of librarianship has been mooted - whether the Nigerian government would be prepared to support this is not known. Such a school has been established successfully in French-speaking West Africa at the University of Dakar School for Librarians, Archivists and Documentalists, Senegal. This seems to offer benefits in terms of the pooling and concentrating of resources, efforts and research[12]. Ogunsheye has suggested that, in future, African needs must be paramount when drawing up curricula and more attention should be paid to specific local needs[13]. Perhaps this sort of thinking will determine future educational facilities for library workers in Nigeria.

5.2.2 Professional and Non-Professional Recruitment

Librarianship in Nigeria, as in other countries, has not attained the same status as some of the other, more established professions.

Recruitment to the profession has thus been an area of concern although the results of a survey of 392 librarians carried out in the early 1980s have suggested that librarians are, on the whole, well qualified and compare favourably with their counterparts in other professions[14].

The first library school in Nigeria, financed as it was by the Carnegie Corporation, followed the American system and concentrated on producing a cadre of leaders and graduate professionals. However, this has been a matter of controversy and the training of para-professional and non-professional staff has gained in importance over later years because of the shortage of personnel and high mobility at these levels[15].

The problem of recruiting and retaining such staff has partly been resolved by programmes of in-service training and staff development. The College of Technology, Owerri is cited as a unique example of an institution offering courses solely for para-professionals, with the emphasis on training in the technical aspects of librarianship[16]. The intention, presumably, is to help build a corpus of workers capable of keeping a library running on a daily basis and performing routine duties.

Professional education is also a topic not without controversy. The major issue has been at what level professional education ought to be introduced. That librarianshiphas now been established as a graduate profession in Nigeria is in no doubt. Reasons for this have been given as, for instance, that librarianship needs to keep up to date with trends in other professions and that motivated leaders of the profession are required, with a strong subject background [17].

The Sharr[18] report led to the opening of the second library school in Nigeria, at ABU, Zaria. This School had then and still has, as its first professional qualification, a bachelor's degree in library science as it was considered that reliance on graduate entry to the profession would restrict the needed increase in personnel. It was felt that such a course would help bolster the ranks of the profession, providing both

a liberal education and vocational training to a depth not possible in a one year postgraduate course. However, critics have felt that such programmes would undermine the status and image of the profession and lead to lower standards[19]. The recruitment of subject specialists is preferred by Fadiran[20] who suggested a form of graduate in-service training whereby graduates in the required subject areas are recruited and employed for one or two years, then sponsored for a postgraduate professional qualification with job security for two years or so assured[21].

According to Nzotta, plans are afoot to introduce a bachelor's degree course at Ibadan University after twenty-five years thus representing a compromise and helping to standardize the library education system[22].

Since the mid-1970s, concern has been expressed about the need for more trained teachers of library and information studies. Russell Bowden[23] has written of an experiment run by Unesco in conjunction with Loughborough University, in which librarians from Nigeria have been involved, to meet such a need.

5.2.3 New Technology in the Curriculum

Nigerian librarians and library educators have recognised the importance of new technology and many are keen to promote the use of such. For instance, Ogunsheye has stated that the trend towards the promotion of African and Nigerian needs is *"taking place at a time when the Western print oriented civilisation is using audio visual aids and computer technology to record and process data in non-book forms"* and further suggests that advantage should be taken of these developments[24]. The fact that debates and discussions in the literature are occurring on such topics implies that there may now be a sufficient number of adequately qualified professionals to apply selective and apt criteria to the technology available. There seems to be a consensus that new technology should be embraced if Nigeria is to stand any chance of

involvement in the world information scene. Writers have also related this to the curriculum, saying that courses should reflect such trends and that courses in information storage and retrieval, and information science should be offered as soon as is practicable[25]. Whether sufficient funds can and will be allocated for the introduction of such courses is not known The level of introduction of new technology will have to be dependent on the resources available. There is no point in planning extensive, specialized courses if resources are inadequate to support these.

5.2.4 Future Trends

Information science is one area of library and information studies that is being assessed by professionals in both industrialized and non-industrialized countries. There seems to be agreement that in the non-industrialized countries, information science must be introduced into the curriculum[26].

Nzotta sees information science emerging as a separate area of specialization at Master's level at Ibadan University Department of Library Studies. He predicts other trends such as a greater increase in student enrolments, new courses such as the bachelor's degree mentioned earlier and increases in staff[27].

5.3 Survey of Three Nigerian Library Schools

5.3.1 Aims and Objectives

The intention of this survey was to focus on new technology in the curricula of the library schools in Nigeria, determining what efforts are being made and what the constraints are. Specific objectives were as follows:

i) to describe the curricula in broad terms, finding out what courses are offered, which courses include modules relating to new technology - at what level and in what depth.

ii) to find out how adequate are facilities for teaching such courses, the number of qualified staff, access to computers for hands-on experience.

iii) to find out how far teaching the applications of new technology is deemed to be of importance.

5.3.2 Methodology

A series of questions (Appendix 4) was used as the basis for interviews with lecturers in the Library Schools visited. Information was also obtained from informal discussion.

a) *Collection of information*

The three library schools visited are the three oldest library schools in Nigeria. There are six library schools in Nigeria at present - the other three not visited being the Department of Library Studies, University of Maiduguri (opened 1978); the Department of Library Studies, Imo State University, Etiti (opened 1981) and the Department of Library and Information Science, College of Technology, Owerri (opened 1979). The latter offers only para-professional library qualifications, while the two departments at Maiduguri and Etiti each offer bachelor degree programmes[28]. At least two new library schools are being established at the University of Nigeria, Nsukka (1983) and the University of Benin[29].

Much information was obtained from informal discussions.At two of the library schools (at BUK and IU), lecturers directly concerned with the introduction of new technology into the curriculum were interviewed. In the third school (at ABU) this was not possible. Prospectuses were

obtained from the Department of Library Studies, IU and the Department of Library Science, ABU.

b) *Scope and limitations of survey*

As mentioned above (5.3.2(a)) only three of the six library schools were visited but it was thought that these would be adequate for determining trends, especially as these were the three oldest library schools, two of which have been in existence for more than fifteen years. The three schools not visited offer only courses at bachelor's degree level and below.

Similar problems as associated with the survey of libraries (3.2.3) occurred. For instance, difficulties with communications and transport meant that visits were often of short duration and not pre-arranged so that definite appointments could not be made. However, interviews with lecturers were granted at short (or no) notice and proved valuable.

5.3.3 Brief Description of Library Schools Visited

(For locations, see Figure 1, p 18)

a) Department of Library Science, ABU

This department opened in 1968 and was the second school of librarianship in Nigeria. It is part of the Faculty of Education, ABU. It offers professional and para-professional programmes plus subsidiary courses in library science for undergraduates in other departments of the faculty. The (para-professional) Diploma in Library Science (DLS) is distinguished from the (professional) Bachelor of Library Science (BLS) degree *"first by the entrance qualification; second by the absence of subsidiary course and third by a greater practical emphasis"*.[30]

The Master of Library Science (MLS) programme serves as a first professional qualification or as further study for those already with a librarianship qualification[31].

b) Department of Library Science, BUK

This department was established in 1977 and is located in the North of Nigeria. The two year Diploma in Library Science plus a bachelor's degree in Library Science are offered. There are plans to introduce a Master's programme probably in 1986[32].

c) Department of Library Studies, IU

Originally the Institute of Librarianship (1959-1970), this Department was the first in Nigeria and was established with the aid of the Carnegie Corporation[33]. Its commitment, as stated in 1981, is to fill *"the higher ranks of the profession"*[34]. Library studies is offered as a subsidiary course for undergraduates in the Faculty of Education. There is also a Diploma in Library Studies. The first professional qualification offered is the Master of Library Studies and higher degrees are also offered. It is the only School to offer such research courses in library studies at present.

5.3.4 Results

a) Staffing

Nigerian library schools have probably been hindered in their development by the lack of aptly qualified and experienced teaching staff. This is partly because library education in Nigeria as a whole is still in the process of being established.

Table 5.1 shows the total number of staff at each school visited and their latest qualifications.

TABLE 5.1: Number of FT Staff and Latest Professional Qualification Held

Library School	Total No. FT Staff	Latest professional qualification held			No. with qualifications from US/UK
		Ug Degree	Pg Degree	Higher Degree	
ABU	22	6	12	4	2
BUK	10	-	-	2 at least	2 at least
IU	17	1	14	2	9

Notes: -indicates no figure given

Source: data gathered from interviews with lecturers in each department.

It was suggested, during the course of interviews that the number of lecturers qualified to teach aspects of new technology depended largely on the number who had studied abroad. From Table 5.1 it can be deduced that thirty-two per cent of the lecturers from ABU, at least twenty per cent of those from BUK and fifty-three per cent of those from IU received at least some of their professional education from overseas in the UK or USA. Although it seemed that lecturers educated abroad were often expected to return qualified to teach new technology-related topics, it was clear that not all lecturers wished to specialize in the teaching of such. At IU one of the lecturers interviewed suggested that only he was qualified to teach library automation and elementary programming and that while he was absent on study leave for three years, no such courses were offered. However, the reason was not simply that no other lecturer could deputise but also retrenchments and freezing of posts meant that existing resources were already stretched to the limit.

b) Courses offered

The courses offered are shown in Table 5.2. A new Master's course is being formulated at the Department of Library Science, BUK and, as stated earlier, the Department of Library Studies, IU is planning to introduce a bachelor's degree course in library studies. Slowly, some standardization is being achieved in respect of courses offered by the different library schools. From the outset, there was little discussion between the library schools to plan library education at a national level.

Table 5.3 shows course modules related to new technology. At present, it would appear that the Department of Library Studies, IU offers the most comprehensive range of such courses. However, it was stated, during an interview that library students tended to be reluctant to choose such options because they considered them to be too scientific (the majority of library students being humanities graduates). Apparently, a decision has been made to recruit more science-based graduates in future for the MLS course. Few of the courses seemed to cover specifically the management implications of library automation, the effects of library automation on the workplace and on working relationships or the need to involve all members of staff at all levels in the innovation process.

One of the lecturers involved in the introduction of the new Master's programme at BUK suggested that courses in communications skills and theories were very important as a back up to courses in library automation and management. Many of the failures of automation projects were attributed to inadequate communications, either with computer centre staff, dealers and suppliers or library managers and staff.

One member of staff interviewed at the National Educational Technology Centre (NETC) suggested that courses in management skills comprising report writing, presentation of case studies and analysis of situations were very important. These skills were often lacking and this could account for many failures of automation projects.

TABLE 5.2: Courses Offered at Three Established Library Schools in Nigeria

Library School	Course	Duration	Entry requirements: (English required for all courses)
BUK	DLS	2 years FT	5 GCE O levels 5 WASC with credits
	BLS	3 years FT	
	MLS	(in process of formulation)	[1]
ABU	DLS	2 years FT	5 GCE O levels 5 WASC with credits Grade II Teacher's Certificate with 5 credits
	BLS	3 years FT	5 GCE at least two of which at A level, or pass final examinations at School of Basic Studies, ABU [2]
	MLS	1 year FT	Bachelor's degree from a recognised university [3]
IU	DLS	2 years FT	5 GCE O levels 5 WASC with credits Grade II Teacher's Certificate with 5 credits or 5 years approved library experience plus sponsorship by employer for mature students
	MLS	1 year FT or max. 3 years PT	Recognised bachelor's degree [4]

Notes:

1. Bayero University Kano, Department of Library Science. Interview with lecturer, 22 April 1985.

2. Ahmadu Bello University, Department of Library Science. Prospectus (BLS and Diploma), 1981/82, 3-14.

3. Ahmadu Bello University, Department of Library Science. The structure of the Master of Library Science Programme 1984/5, 13.

4. University of Ibadan, Department of Library Studies, Prospectus 1981-2, passim.

TABLE 5.3: Course Modules Related to New Technology

Library School	Course	Module related to new technology	Status
BUK	BLS	Planned - information science and library automation	Compulsory
	MLS	Information science	"
		Library automation	" 1
ABU	BLS	None but aspects included in course in documentation - library mechanisation and information centres	3rd year option
		Serials - impact of automation	3rd year option 2
	MLS	Information science	One of 7 optional areas of specialisation
IU	MLS	Information science	Required
		Library automation	Elective
		Management and systems analysis	"
		Information and society	"
		Information retrieval systems	"
		DP equipment	"

Notes:

1. Bayero University Kano, Department of Library Science, Interview with lecturer, 22 April 1985.

2. Ahmadu Bello University, Department of Library Science. Prospectus (BLS and Diploma) 1981/2, 3-10.

3. Ahmadu Bello University, Department of Library Science. The Structure of the Master of Library Science Programme 1984/85, 1,3.

4. Ibadan University, Department of Library Studies, Prospectus 1981-82 (27-28).

5.3.5 Conclusion

The issue of new technology and the development of related causes and modules is of concern certainly in the three most established library schools in Nigeria. There is a move away from purely traditional librarianship at the professional level, in accordance with world-wide trends. The pace of change is slower in Nigeria than in the industrialized countries. Resistance to change generally is higher in the less developed countries while problems faced in terms of resources - human and financial - are awesome. However, individual lecturers seem very committed to develop new courses in library automation, computer applications and information science and they appear to have the approval and support of heads of Departments. The major problems continue to be lack of funds and insufficient qualified teaching staff. Even those staff who are qualified to teach computer applications and systems analysis find it difficult to keep up with new trends and even with the literature. There is obviously a need for continuing education and opportunities for updating knowledge.

One area of the curriculum that, in the Author's view, should be emphasized is that of management and the acquisition of related skills - such as preparing case studies, report writing, presenting feasibility studies, cost-benefit, cost-effectiveness and cost-analysis reports. It is felt that these aspects are often belittled or assumed to be skills easy to acquire on-the-job. In fact, it has been found that such aspects have been of extreme interest and value (Appendix 7) to students.

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Chapter 5: Notes and References

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4. Nzotta, Education and training of library personnel in Nigeria..., 47.

5. G. Bramley, World trends in library education, London, Bingley, 1975.

6. Ibid, 131.

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13. Ogunsheye, The future of library education in Africa, 274.

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23. Russell Bowden, Improving library education in the developing countries: a Unesco and Loughborough University experiment. Unesco Bulletin for Libraries 30, 6, 1976, 255-261.

24. Ogunsheye, The future of library education in Africa, 270.

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31. Ahmadu Bello University, Department of Library Science, The structure of the Master of Library Science programme, 1984/5, Zaria: Ahmadu Bello University, Department of Library Science, n.d., 1.

32. Bayero University, Department of Library Science, Interview with lecturer, 22 April 1985.

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CHAPTER 6

UK LIBRARY SCHOOLS AND NEW TECHNOLOGY - PROVISION FOR OVERSEAS STUDENTS

6.1 Introduction

Current issues, related to new technology, in the curricula of UK library schools will be explored and their relation to perceived or actual needs of overseas students discussed. While this dissertation focusses attention on Nigeria specifically, issues regarding overseas students in general are examined since the real number of Nigerian students in the UK library schools is relatively small. The relevance of that part of the curriculum covering aspects of new technology to overseas students will be considered. This chapter also contains the report of a survey of UK library schools, the purpose of which was to find out whether any provision, particularly in relation to new technology, for overseas students is made or considered desirable.

The reader is also directed to Appendix 7 for the results of a brief survey of overseas students at Loughborough University of Technology, the intention of which was to find out their opinions of the new technology content of the postgraduate courses in library and information studies.

6.2 Trends and Issues

A recent article by Kevin McGarry[1] gives a progress report on education for librarianship and information science in the UK. This highlights many of the important trends and issues, only some of which can be made reference to here. Similarly, only passing reference can be made to issues concerning overseas students.

6.2.1 The IT Revolution

The report of the Alvey Committee[2] on IT and the ITAP report[3] plus the government response to the latter[4] all express the government's concern with and recognition of the impact of IT on all areas of industry, research and development. The government is committed to substantial investment in IT-related developments but it seems that, unless library workers respond positively to the challenges posed, they may be overlooked. They must seek ways in which to mitigate some of the constraints[5].

6.2.2 Response of UK Library Schools to the IT Revolution

The term "curriculum" has been defined as:

> *"... that usually unarticulated and changing set of precepts, values and traditions influencing the design of courses which exists in many professions".* 6

Recently, there seem to have been many calls for changes in the curricula of UK library schools. It would appear that such calls started in 1977 at *"a workshop funded by the British Library Research and Development Division (BLR and DD) and the College of Librarianship Wales (CLW)"*[7]. In early 1985, a short-life Transbinary Committee was established under the auspices of the University Grants Committee (UGC) and the National Advisory Board (NAB), in consultation with, amongst others, the British Library. This committee, comprising members from various disciplines is to examine the curricula of UK library schools, particularly with reference to the changing market place for graduates due to the advent of new technology[8]. The committee is due to report and make recommendations in the early summer of 1986[9].

6.2.3 Aspects of the Curriculum

i) Education and training - definitions

Havard-Williams[10] divides professional education into three aspects - (a) general education, (b) professional education, (c) professional training (before and after qualification)[11]. This division is based on the presumption that a liberal education, hence the encouragement of thinking beyond immediate requirements, is a vital component of professional qualification. It is considered by some that: *"...one of the deeper effects of technological change has been to make us think about the differences between training and education"*[12]. It is also necessary to think about their respective positions within the content of different courses.

ii) New technology in the curriculum

The report entitled Curriculum change for the nineties, cited by Armstrong[13] plus works by Cronin[14] and McGarry[15] all highlight the concern of library educators to articulate objectives of education and training in the light of recent developments, particularly in the field of IT, and to re-assess the professional curricula accordingly. The current interest, as reflected in the literature, shows that debate on these issues is likely to continue for a long while although positive action is what is really required. Constraints on the ability of UK library schools to respond to such challenges have been expressed and these must be taken into account[16].

iii) Structure of courses

In the late 1960s, undergraduate degrees in librarianship were introduced at three University-based departments, while other schools were established at Polytechnics. Master's degrees were of three types - (a) an initial basic qualification, (b) research degrees, (c) post-

qualification further degree, all of twelve months duration. Post-graduate diploma courses offered at Polytechnics were of nine months duration only[17]. After the Robbins report on higher education and *in the boom days of the sixties, student and staff numbers increased,* courses flourished[18]. Since the early eighties the recession has hit hard, fewer students (proportionately) enter higher education. Resources for different courses vary according to government policy and priorities, and sources of income.

iv) Content of courses

The idea of permanency, as mentioned above (6.2.2) is reiterated by John Eyre[19] who writes of *"... professional continuity in changing courses"* [20]. He expresses the need to respond to changing circumstances while retaining professional credibility. Thus any changes made must be of direct relevance to practical library work. A time of rapid changes offers perhaps a suitable opportunity to assess priorities and basic needs.

v) Objectives of courses

The above-mentioned review by Eyre (6.2.3.iv) of computer-related courses in library schools suggested that, in the UK, most library educators considered the major objectives to be the *"... removal of barriers to understanding and the familiarization with computer technology, although to varying degrees among different organisations"* [21].

He also wrote of levels of competency. One of the surveys covered concluded that there was a need for an appreciation of how computers can be used and that

> *"... such work needs a good grounding in a relevant subject, studied to a usable level of competence"* 22

Levels of competency were also discussed at the conference reported by G.M. Tseng[23], under the general headings of - attitudes, skills and knowledge, as objectives for education and training of future (and present) library professionals[24].

Cronin has suggested that a report akin to that prepared by Ralph Conant [25] - a comprehensive attempt to record the goals and achievements of library education in the USA - is needed[26].

vi) Information science versus librarianship

This debate centres on the relationship between information science and librarianship. Some consider that information science is a development from librarianship and documentation, and view the two as complementary aspects of a single discipline. It seems that this approach would now be the consensus[27]. It has even been suggested that perhaps the most pertinent debate now should centre on the relationship between information science and information technology[28].

6.3 Overseas Students

For a fairly comprehensive treatment of general issues regarding overseas students, the reader is directed to the works of P. Williams[29]. Many library educators are also aware of the benefits to the UK of encouraging overseas students and of the practical problems with which they may be faced[30].

The increases in fees for non-UK residents in the early 1980s has led to a reduction in the real number of overseas students, although this has not been the only reason[31]. Williams has stated that in order to provide facilities for overseas students that will be of benefit to all concerned much coordination, on a national scale, is required - between government departments, and educational agencies, industry,

professions and so forth[32]. This is true but it is also considered by the Author that, on an individual level, each organization opening its doors to overseas students should seek to serve these clients in the optimum way. While it is true that publicity and prospectuses are available for consultation before making a choice, these are basically advertisements and as Cronin writes (on the portrayal of UK library schools in their prospectuses):

> *"... the self-image and actuality may sometimes be at variance with one another"* 33

From the student's viewpoint, never having been to library school, one has to judge them from a stand of relative ignorance of what to expect. This must be even more difficult when the whole social and cultural milieu is different.

Constraints on the ability of library schools to fulfil their commitments even to home students seem numerous and many may feel that the resources to cater for the needs of overseas students are unavailable luxuries. The basis for successful relations with overseas students must be a clear statement of what a library school can offer and for whom particular courses are intended. This is so, whether special provision is made or whether overseas students are expected to be integrated into a course with home students. Care must be taken to ensure that courses for overseas students are not second-rate. Where overseas students integrate with home students, care must be taken to ensure that objective standards can be and are applied.

6.4 Survey of UK Library Schools - New Technology-Related Courses and Overseas Students

6.4.1 Aims and Objectives

The survey was intended to explore the provision of new technology-related courses in UK library schools, focussing specifically on their

relevance and usefulness to students from developing countries. According to Peter Jordan, "... *the vast majority of students are taught on postgraduate and first degree courses...*" [38]. It was assumed, for the purposes of this study, that this also holds true for overseas students at UK library schools. An idea of the proportion of overseas students on such courses was sought - it was thought possible that where the proportion was higher, special provision for these students would be more in evidence.

Specific objectives were as follows:

i) to find out the number of library schools offering courses with considerable new technology content

ii) to find out the number of overseas students on such courses

iii) to find out whether any courses or course modules specifically for overseas students were offered or planned.

iv) to find out whether any courses or course modules relating to new technology and specifically for overseas students were offered or planned.

6.4.2 Methodology

A short series of questions was devised and sent, as part of a letter explaining the purpose of the survey (Appendix 5) to all the UK library schools. In view of the fact that the library schools had recently been circulated with a similar questionnaire from a member of staff of the same department, reference was made to this in the letter[35]. A modified letter and questionnaire was also sent to six professional associations.

a) Collection of information

The questionnaire was mailed to all UK library schools plus the six other institutions (Appendix 6) on 20 June 1985. Since an overview of all the schools was required, a postal survey was considered the best method.

b) Scope of survey

All library schools plus six professional associations or related institutions were surveyed. Other organizations such as the British Council (which has played an important role in library education in developing countries), various United Nations associations, computer companies and consultancy firms also run courses relevant to the needs of library professionals from the developing countries but a survey of these was beyond the scope of the present study.

6.4.3 Results of Survey

i) Response rate

Questionnaires were sent to seventeen library schools and, as of 31 July 1985, there were fifteen respondents giving a response rate of eighty-eight per cent.

Questionnaires were also sent to six related institutions. Five of these responded, giving a response rate of eighty-three per cent. One of the respondents (University of London, Institute of Education) no longer runs courses in librarianship.

It is thought that reasons for the very high response rate include the fact that this survey followed closely an earlier similar survey (to which reference is made in 6.4.2) and also that the issue is of some concern to library educators in general.

ii) Attendance of overseas students at UK library schools

In the survey, the library schools were asked to indicate courses containing elements of new technology run by their establishments, and to indicate the number of students from developing countries on these courses. Table 6.1 shows the results of this. Three of the library schools currently have no overseas students on their courses and these do not appear in the table.

As can be seen, the figures range from zero to one hundred per cent. Some of the respondents gave reasons for the low or high percentage of overseas students on their courses and these were of great interest. One of the institutions, Robert Gordon's Institute of Technology (RG) cited geographical location as a reason for having few overseas students and for not designing special courses for overseas students. Several of the institutions suggested that the low number, in real terms, of overseas students, precluded effective course planning, for instance, Manchester Polytechnic (MAN), whose respondent went on to add that the enrolment of more overseas students depended on *"specific initiatives on the part of the institution"*. Such initiatives involve, of course, much staff time and many resources. Other institutions mentioned lack of staff as a major constraint on developing and maintaining courses for specific groups. The respondent from another institution feeling itself to be low on overseas applicants, the Polytechnic of North London (PLN), stated that, given the resources, they would employ a representative specifically to recruit overseas students. Currently, enrolment of overseas students relies mainly on reputation and personal contacts for virtually all the library schools surveyed.

One respondent, from Queen's University, Belfast (QUB) remarked on course planning *suggesting that while the needs and pre-entry requirements* of overseas students should be determined and resources allocated to familiarization facilities, courses themselves need not be any more separate than necessary. He also suggested that members of staff involved in the teaching of overseas students should have considerable

TABLE 6.1: Attendance of Overseas Students on UK Library Courses

Establishment	Course	Number of Overseas Students Per Year
City	MSc Information Science	6
CLW	Master's degrees LID	Few
ECHE	BA LIS	5%
LEEDS	BA Librarianship) BSc Information Science) PG Diploma Librarianship) MA Librarianship)	15%
LIV	BA (Hons) Librarianship	4
LUT	BA/BSc LIS; BLS MA/MSc LIS MA/Alise MLS	1-5% 30-40% 100% 90%
MAN	BA (Hons) Librarianship	Few
PNL	Undergraduate courses) Postgraduate courses)	6%
RG	Undergraduate courses) Postgraduate courses)	Few
SHEFF	Master's Courses (taught) Master's/PhD (research)	10% >10%
STRATH	Postgraduate diploma libra-) rianship Undergraduate degree)	10%
UCL	Diploma LIS MA LIS	33% 100%

Notes:

1. For full title of establishment, see Appendix 6.

Source: data obtained from responses to questionnaire (Appendix 5)

awareness and experience of their countries of origin; methods of tuition, assessment, staff-student relationships should be considered with care. He remarked that:

> *"In a way, content is the easiest area for course planners"*

and finally concluded:

> *"All the above call for greater resources, flexibility and care than are available in any UK library school I know of"*

From Table 6.1 it can be seen that the majority of overseas students are on postgraduate courses. At one institution (LUT), at least, this is the result of a deliberate policy not to encourage applicants from overseas at undergraduate level, unless access to library schools in their own countries is non-existent or difficult. This type of policy should encourage the indigenous development of library education, in Nigeria, certainly, where facilities for undergraduate education are on a sound basis.

iii) Courses and course modules specifically for students from, or interested in, developing countries

Although the majority of the library schools surveyed made no provision specifically for overseas students in their curricula, many suggested that electives, seminar papers, projects and dissertations could often be used to cater for particular interests. Thus, much depends on the interests of the staff and their encouragement of overseas students to pursue topics of interest and use to them on their return home. However despite the overall paucity of courses, it was interesting to note developments in many of the library schools. Table 6.2 gives an indication of some of the courses and course modules specifically designed for overseas students.

TABLE 6.2: Courses and Course Modules Specifically for Students From, or Interested In, Developing Countries (UK Library Schools)

Establishment	Course/s	Status
CLW	MLib Information Development Studies in the Third World. One of the three modules - IT	Planned to commence 1987.
Leeds	Various short courses run for British Council	Ad hoc - on demand
LUT	Modules on developing countries (UG and PG courses)	Planned
	MA Archives, Library and Information Studies and Education (MA/Alise) - for library educators in developing countries (1)	Available since 1974
	MLS - not designed specifically for overseas students but attended mainly by overseas students	
	Annual short course (three months) for practising librarians - presently very involved with Pakistan (2), includes introduction to computers and on-line searching	Annual since 1982
	Various short courses held overseas by various members of staff - Africa, Asia, South America, including courses on management, development of on-line services, and bibliographic databases	Ad hoc
	There is also a long tradition of exchange visits to many developing countries, including Nigeria	

/Continued ....

TABLE 6.2: ... continued

Establishment	Course/s	Status
PNL	One term preliminary course for overseas students (PG Diploma Librarianship)	Regular
SHEFF	Two elective courses offered - *on Technology Transfer*; Developing countries: Library and Information Systems	Regular
	Summer schools - variously funded by Unesco, IFLA, FID, British Council.	Every two/three years
	New Information Technology course - summer course - based in Sheffield and London - 25-35 overseas students attending	1986 - to last three/four weeks
	User education - British Council Summer School, organized by Centre for Research in User Studies (now known as Consultancy and Research Unit Sheffield)	Held in 1983

Notes:

1. For further details of this course, see Russell Bowden, Improving library education in developing countries: a Unesco and Loughborough University experiment, Unesco Bulletin for Libraries 30, 6, 1976, 255-261.

2. For brief description of this programme, see Inese A. Smith, The *Loughborough connection: post-experience training for Pakistani* librarians, Information Development 1, 1, 1985, 132-3.

Source: data obtained from Author's survey; also information supplied by G.M. Tseng, I.A. Smith, P. Havard-Williams (Department of Library and Information Studies, Loughborough University of *Technology*).

Only one of the courses shown in the Table was specifically designed to help overseas students familiarize themselves with the environment before settling into a course common to all students. The course includes an introduction to and practical use of computers (PNL). The course at PNL starts in January so the preceding Autumn term is free, unlike the situation in the majority of the library schools whose courses start in September or October. If these were to offer such preliminary courses, the vacation period would be encroached and this may be inconvenient, for administrative purposes.

Two of the library schools offer, or plan to offer, specialized Master's programmes, specifically for overseas students or those intending to work overseas. It is recognised that not all schools are in a position to consider offering such facilities.

The library school at Loughborough University of Technology (LUT), offers two courses which stand out as having a high proportion of overseas students - the MA/Alise course, designed for library educators in the developing countries and the MLS taught course, of eighteen months duration. The latter course has in the past, been attended almost exclusively by overseas students, for historical reasons. The course was conceived originally for students without a degree or professional qualification in librarianship but with considerable experience plus Library Association qualifications[37]. However, at present neither of these courses has a compulsory element of new-technology related course modules. The Master's courses in Library and Information Studies do have a high content of new technology however and in the academic year 1984/5, fifty per cent of the students on this programme were from overseas.

A varied programme of short courses held in the UK and overseas is offered by staff of the library school at LUT, which has an *"internationalist policy"* [38]. One notable advance (in the running of short courses) is seen in the preparations for a future course to be held for

Egyptian library and information workers whereby members of staff involved in the project will be carrying out a fact-finding visit prior to the start of the course[39].

As regards publicizing courses abroad, the majority of the institutions rely on personal contacts, and particularly returning students. It does present a problem however - providing advance notice of courses is not always easy. Also the cost of many short courses run in the UK may be prohibitive to overseas visitors.

Some of the library schools surveyed mentioned short courses held, or other facilities which were often attended by overseas students and professionals although not necessarily designed particularly for them. The results are shown in Table 6.3 below.

TABLE 6.3: Short Courses of Potential Interest to Overseas Students and Professionals (UK Library Schools)

Establishment	Course	Status
CBP	Two short courses on IT in libraries	Planned
CLW	Introduction to on-line searching	4 day courses
NEW	Distance learning course in statistics for librarians	In preparation
QUB	Various short courses	

Source: data obtained from Author's survey

iv) Attendance of overseas students on courses run by professional institutions

This section is by no means comprehensive but it is hoped to indicate future trends in the provision of new technology-related courses to overseas students. Table 6.4 shows some of the facilities offered,

of relevance to overseas students.

TABLE 6.4: Courses of Potential Interest to Overseas Students, run by Professional Institutions

Establishment	Course	Number of Overseas Students
Aslib	Various in on-line field. Courses on constructing a thesaurus and computer-produced indexes	No set pattern A few A few
Library Association (LA)	Various short courses, seminars International summer workshops for overseas students but not concerned specifically with new technology - one held 1981; second workshop due 1983 cancelled due to lack of interest. IFLA Conference 1987 to be held in Brighton. Pre-conference course/seminar relevant to overseas visitors to be offered	Several - no records kept
Library Technology Centre LTC)	Overseas participants very welcome but no specific plans to offer courses particularly for overseas students since demand in UK still cannot be met	-

Source: data obtained from Author's survey.

The results show that facilities for overseas students are scarce. The LA and the LTC both suggested the problem of publicity as a major constraint. Both found that information about courses often reached potential overseas participants only after the event. All three suggested that the market in the UK was not yet saturated so that one impetus to promote courses elsewhere is lacking.

6.5 *Conclusion*

It is clear that UK library educators are very concerned about the impact of IT on the profession and are seeking ways to prepare graduates for a changing profession. The survey shows that there is little provision of courses specifically for overseas students both in general terms and in terms of new technology-related topics. Various reasons for this have been suggested, for instance that the low real number of overseas students precludes effective course planning and provision since returns on investment would not be sufficient, that there are insufficient suitably qualified and experienced staff available. Certainly, the Author's experience at Loughborough University Library School would suggest that the provision of facilities for overseas students depends on the broad policy of the school plus strong commitment by individual members of staff. Obviously current financial constraints make a review of priorities for spending vital but it is important not to lose sight of long term benefits.

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CHAPTER 7

CONCLUSIONS AND PROSPECTS

7.1 Introduction

Recurrent themes in this study will be isolated and the initial objective of the study will be addressed, namely to consider educational and training needs which could be provided in the North to help alleviate some of the constraints on library automation in the developing countries. The study has been based on the premises that cooperation with the developing countries is an obligation as well as of mutual interest, that students from the developing countries should be offered appropriate facilities and that new technology is one issue requiring immediate attention by all in the information field.

7.2 Elements of Education and Training as Basic Requirements for Students from Developing Countries

It is recognized that each situation has its own particular requirements but there are factors common to many, if not all and these common factors will be addressed here. The Author believes that students from developing countries should have basic professional training or experience locally where possible. Certainly this is possible in Nigeria and should be a pre-requisite for enrolment for Nigerian students. An essentially pragmatic approach is adopted. It is thought that, even using existing resources, courses can be made more relevant by emphasizing different aspects of the curriculum (see remainder of this section). Very often, constraints considered earlier, in Chapter 4, applying to the developing countries, also affect UK librarians, albeit to a lesser degree.

Where possible, exposure to techniques and skills applicable in any situation should be offered. Such skills plus educational requirements will be considered next.

7.2.1 Environmental Considerations

a) An important aspect of education here is the ability to prepare for the introduction of automation by knowing the range, availability and potentials of new technology, and how to keep informed of developments. The effect of technology on society and relationships should be examined. General knowledge about telecommunications infrastructures is required plus the encouragement of a critical appraisal of these and of research.

b) Training is required to enable librarians to identify and exploit local resources. Different methodologies should be shown and if possible practised and evaluated.

c) Climatic features may preclude the successful use of certain technologies unless these are adapted. The analysis of such features and their potential effects is required, particularly when considering the idea of 'appropriate technology' (7.2.2(c)).

7.2.2 Technical Considerations

a) *Systems analysis and design*

Objective methodologies and approaches are required which can be employed in any situation (subject to adaptation). The recognition of organizational and cultural constraints (Chapter 4) may form part of the background to this type of course. Formal and informal organization must be taken into account as must levels of system-whole and sub-systems. Appreciation of the need for and design of interfaces is also required.

b) *Familiarity with computer terminology*

Barriers to communication can be reduced by the understanding of computer terminology. Students can be deterred from attending certain courses if these appear to be "too scientific" and may prefer to stay with what they know or what is compulsory (Appendix 7).

c) *Appropriate technology*

In view of the much-discussed "world information order", it is felt that international aspects of librarianship should be given more emphasis in the curriculum. Introduction to development processes should be a background - input from students of developing countries could be large. Such courses should not however be seen as only relevant for students from developing countries. The concept of appropriate technology needs examination and areas requiring research must be highlighted. Such a course may be just as useful to home students who may eventually work on projects in unfamiliar environments, rural areas for instance.

7.2.3 Managerial Considerations

a) *Theories and techniques*

Libraries are complex organizations and management seems now to be recognized as a core course for library studies. In the developing countries (and in the industrialized countries) management for and of change and innovation is required. Management theories and techniques must be presented and a critical appraisal made. This is particularly so, when management theories (for instance on management of time or participative management) may be based on certain cultural assumptions not valid for the developing countries. Practical experience of management techniques is valuable and enjoyable (when well-presented), such as role plays, team exercises etc. even if these are removed from real life. The constraint of time possibly precludes successful participative exercises.

b) *Management information*

The need for, generation and use of management information and its relation to performance and decision-making should be stressed.

It was suggested earlier (Chapter 3) that the utilization of staffing resources could be improved in Nigeria. This requires planning and

budgeting. Also, it was found that very few libraries were in the practice of analyzing jobs, preparing job descriptions and, presumably, objectively and regularly evaluating and appraising performance. The importance and benefits of job analysis should be stressed. It may be that there are reasons why this is not practised frequently in the libraries visited. This state of affairs has been confirmed as commonplace in Nigerian University libraries[1].

c) *Training programmes*

The education and training of staff and users is another area requiring attention. In the case of library automation, education and training programmes may need to be initiated at different levels. Determination of the need for such programmes, implmentation and coverage will have to be ascertained. The production of user education instructions, promotional literature/signposting involves certain techniques.

d) *Communications skills*

These include liaison, interviewing techniques, oral presentation and written communications skills such as the writing of technical reports, case studies, feasibility studies, also the preparation of audio-visual aids. These types of skills were mentioned in many of the Nigerian libraries visited (see Chapter 3) and also by students surveyed (Appendix 7). Communications requirements may differ in developing countries especially where there are many languages and certain relationships may be more formal than in the North. Participative management and techniques of motivation need to be viewed in the specific context of developing countries.

e) *Practical skills*

Other important skills especially quantitative skills - the design and presentation of surveys plus analysis of surveys require attention. Forecasting, budgeting and statistical interpretation is required. Again, methods of informing others about what is being done need to be learnt.

7.3 Provision of Courses for Students from Developing Countries

a) Preliminary courses for students from developing countries as a means of familiarization with and introduction to new technology before attending courses in common with home students seem useful and may be appreciated, although it must be remembered that such students will vary in terms of background and experience. Some may be familiar with computer programming or basic keyboarding skills while others may not be. But, general knowledge about the range and availability of new techniques and their impact on society would be of value to all. Such courses could last from two days to two weeks, although the longer such courses are, the better for overseas students since merely settling down can take more time.

b) The provision of specially-designed short courses requires much forward planning and careful consideration of what is actually being offered. Course planners must start from an assessment of needs of their prospective students and must assume that objectives and related aspects are clear[2]. Such courses are resource-consuming and many library schools may not feel able to allocate staff, money and other resources to the provision of such facilities.

Individual efforts by staff are most likely to develop into short course programmes - the establishment of contacts is vital. Where courses can be reinforced by follow-up courses, this will contribute to their lasting effectiveness. The cost of such courses offered should not be prohibitive. There is a need for more contact with librarians in the developing countries - the professional associations might play a more encouraging role by soliciting more papers, perhaps, for the journals.

For Nigeria, the Author considers that courses for continuing education are most suitable, since the indigenous library schools have a firm basis now.

Lacking are specialists in information science aspects and computer-related aspects. Professionals and teachers of library education need awareness courses, practical courses plus training courses on how to teach about computers, with limited resources. Discussion on the viability of teaching computer applications in libraries, with few resources, is vital and an urgent issue to be addressed.

7.4 Summary

The number of overseas students attending UK library schools is small and this situation should be redressed. Individual efforts need to be supplemented by substantial resource input and research into ways of providing financial resources for such projects. Librarians as communicators cannot afford to ignore their colleagues overseas, particularly in this age of high technology. Librarians from developing countries can benefit from courses in the North because of the facilities alone but, unless courses are specifically tailored to their needs, they will be disappointed. For the Nigerian case, awareness courses and updating courses may be the most in demand plus courses in various aspects of management and research techniques.

As always, if courses are to be held in the UK, those responsible for running the courses must have experience of conditions in the developing countries and an appreciation of the environments of their potential students plus a knowledge of their needs, based on empirical study if possible, and proven commitment to international development.

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APPENDIX 1

A. GENERAL

1. Name of library:
2. Type of library:
3. Stock:

   i) Size (a) No. of books .....
   (b) No. of periodicals .....
   (c) Total no. of volumes .....

   ii) Coverage
   (a) Subjects .....
   (b) Languages .....

4. How many users? .....

5. Staff:

   i) How many staff are employed in total? .....

   ii) How many work in each of the following departments?

	No. Professional	No. Non-Professional
(a) Cataloguing	.....	.....
(b) Periodicals	.....	.....
(c) Acquisitions	.....	.....
(d) Loans/circulation	.....	.....
(e) Administration	.....	.....

   iii) How many staff are qualified in library/information studies?

Type of qualification	No.	Where qualification obtained
(a) Certificate	....	.....
(b) Diploma	....	.....
(c) BA/BLS	....	.....
(d) MA/MSc	....	.....
(e) MLS	....	.....
(f) Other	....	.....

   iv) Do any training schemes exist? Yes/No
   If yes, what type are these?

   (a) Part-time study/day-release .....
   (b) In-house training .....
   (c) Short courses .....
   (d) External consultants .....
   If Yes, where from? .....
   (e) Other .....

   v) Do any of the staff have computer knowledge? Yes/No
   If yes
   (a) No. trained as users .....
   (b) No. trained as programmers .....
   (c) Any exchange visits? .....
   If yes, when? .....
   With whom? .....

APPENDIX 1...continued

(d) Have any courses been arranged with computer consultants? Yes/No
If yes, when? .....
With whom? .....
Aim of course? .....

B. LIBRARY FUNCTIONS

6. i) Are any of the following functions automated?

	Fully	Partly	No
(a) Circulation	.....		
(b) Serials	.....		
(c) Cataloguing	.....		
(d) Acquisitions	.....		
(e) Other	.....		

ii) Are there any plans to automate any of the above functions? Yes/No
If yes, which ones? .....
.....

iii) At what stage are the plans?
(a) In process of formulation .....
(b) Recommendations made .....
(c) Under consideration by funder .....
(d) Stage of implementation .....

Are there any significant dates to indicate when the different stages should be completed? Yes/No
If yes, what are these? .....

7. Cataloguing:
i) What types of catalogues are used? (a) Author; (b) Subject; (c) Classified; (d) Indexes; (e) Other

ii) In what form is the catalogue? (a) Card; (b) Book; (c) Fiche; (d) On-line; (e) Other

iii) How is it produced? (a) Typed; (b) Stencil; (c) Computer output; (d) Other

iv) Who produces it? (a) Library; (b) Other body in Nigeria; (c) Other body outside Nigeria.

v) What cataloguing rules are applied? (a) AACR; (b) MARC; (c) ALA; (d) Other

vi) What classification scheme is used? (a) Dewey; (b) UDC; (c) LC; (d) Bliss; (e) Other

vii) Is there a Union Catalogue? Yes/No
If yes, does the library participate in its production? Yes/no
Is the catalogue
(a) Regional Union Catalogue Yes/No
(b) National Union Catalogue Yes/No

APPENDIX 1 ... continued

8. Serials:

		Bound	Unbound
	i) Number of volumes in library	.....	.....
	ii) What is the check-in procedure?	.....	.....
a.	iii) Is there a Union List of Serials?	.....	.....

If yes, does the library participate in its production? Yes/No

b. Is the list
- i) Regional Union List .....
- ii) National Union List .....

iv) What are the major problems in serials control? .....

Rank the following
- (a) Postal delays .....
- (b) Timeliness .....
- (c) Non-availability of parts .....
- (d) Non-arrival of parts .....
- (e) Relevance of gifts .....
- (f) Other .....

9. Acquisitions:

i) Number of accessions/year	Serials	Books
by (a) purchase	.....	.....
(b) gifts	.....	.....
(c) exchanges	.....	.....
(d) total	.....	.....

ii) Total amount spent/year on accessions .....

iii) Order process:
- (a) Selection - who selects? .....
- (b) Does the library participate in any cooperative acquisitions arrangements? Yes/No
  If yes, with whom? .....
- (c) Who are the major suppliers? .....
- (d) Does the library participate in any exchange arrangements? .....

If yes, with which institutions?

In Nigeria	Outside Nigeria
.....	.....
.....	.....

iv) What are the major problems with acquisitions? .....
.....

Rank the following:
- (a) Postal delays .....
- (b) Non-arrival of orders .....
- (c) Non-availability of ordered items .....
- (d) Relevance of gifts .....
- (e) Timeliness .....
- (f) Other .....

APPENDIX 1 ... continued

10. Circulation/Loans
    i) How many borrowers are there? .....
    ii) What percentage of stock is for loan? .....
    iii) What is the present issue system? .....
    iv) What are the major problems of the present circulation control system? .....
    .....
    .....
    v) Inter-library loans:

	Within Nigeria	Outside Nigeria
(a) No. of items supplied/year	.....	.....
(b) No. of items obtained/year	.....	.....

11. New Technology:
Which of the following do you have access to in your library?
Indicate maintenance arrangements, whether in good working order.

	Access	Good Working Order?		
	Yes	Maintenance Arrangements	No	Reasons
a) General office equipment				
Telephone	.....	.....		
Telex	.....	.....		
Photocopier	.....	.....		
Typewriter(s) electric	.....	.....		
manual	.....	.....		
Word processor	.....	.....		
Other	.....	.....		
b) Audio-visual aids				
Tape-slide equipment	.....	.....		
Film projector	.....	.....		
Microform readers	.....	.....		
Other	.....	.....		
c) Computers				
Hardware	.....	.....		
Software	.....	.....		

12. *Does the library offer any of the following services?*

Which ones?	How produced?	No. staff involved in production
(a) Bibliographies	.....	
(b) Reading lists	.....	
(c) Information retrieval/ literature searches	.....	
(d) Current awareness (incl. bulletins/SDI)	.....	
(e) Translating	.....	
(f) Abstracting/Indexing	.....	
(g) Other	.....	

APPENDIX 1 ... continued

ii) If you have answered yes to any of the above, what are your sources of information for each service?

(a) ..... (e) .....
(b) ..... (f) .....
(c) ..... (g) .....
(d) .....

APPENDIX 2

LIST OF ALL NIGERIAN LIBRARIES AND INSTITUTIONS VISITED BY THE AUTHOR, 22 MARCH - 18 MAY 1985

a) Questionnaires completed at interviews held in six libraries:

Academic libraries:

Bayero University Library, Bayero University, Kano, (BUK)
Ibadan University Library, Ibadan University, Ibadan, (IU)
Jos University Library, Jos University, Jos.
Kaduna Polytechnic Library, Kaduna Polytechnic, Kaduna, (KP)
Kashim Ibrahim Library, (KIL) Ahmadu Bello University, Zaria (ABU)

Public libraries:

Kaduna State Library Board (HQ), Kaduna (KSLB).

b) Questionnaires left for completion at three libraries:

Academic libraries:

Lagos University Library, Lagos University, Lagos.

Public libraries:

Kano State Library Board (HQ), Kano.
National Library of Nigeria, Lagos, (NLN).

c) Library schools visited:

Department of Library Science, Bayero University, Kano.
Department of Library Science, Ahmadu Bello University, Zaria
Department of Library Studies, Ibadan University, Ibadan.

d) Visits were also made to the following establishments:

Abadina Media Resources Centre, Ibadan University, Ibadan
Department of Library Studies Media Resources Centre, Ibadan University, Ibadan
Institute of African Studies, (IAS) Ibadan University, Ibadan
Institute of Agricultural Research, (IAR) Ahmadu Bello University, Zaria
International Institute of Tropical Agriculture, (IITA) Ibadan University, Ibadan
National Educational Technology Centre, (NETC) Kaduna

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20th March 1985

To Whom It May Concern

Dear Sir or Madam

Re: Ms. Stella Jupp

I am writing to introduce a postgraduate student of this Department to you, Ms. Stella Jupp. Ms. Jupp is currently researching the potential and problems of introducing new technology to libraries and information work, as part of her Masters degree programme. In the first instance she intends to specifically focus on Nigeria.

The outcome of the research will be a preliminary list of recommendations to us on education and training needs of our overseas students in the area of library automation and information retrieval.

I hope you will agree that this is a very worthwhile project and give Ms. Jupp your support. She has a number of questions she would like to put to yourself and your staff, and I would be most grateful if she could visit your Institution within the next few weeks for this purpose.

Thanking you in anticipation.

Yours faithfully,

Gwyneth M. Tseng
Lecturer and Supervisor

P. Havard-Williams
Head of Department

APPENDIX 4

LIST OF QUESTIONS FORMING THE BASIS OF INTERVIEWS AT NIGERIAN LIBRARY SCHOOLS

1. How many full-time lecturers are in the Department?
2. How many part-time lecturers are in the Department?
3. How many lecturers are qualified to teach subjects related to new technology?
4. a) What are the courses offered?

   b) What are the entry requirements?
5. What course modules, covering elements of new technology, are offered?
6. How much emphasis is placed on the teaching of new technology applications?

Department of Library and
Information Studies,
Loughborough University of
Technology,
LOUGHBOROUGH,
Leicestershire LE11 3TU

19.6.85

Dear Sir/Madam,

I am a post-graduate student (MA Library and Information Studies) at Loughborough University of Technology, currently researching the issues involved in the introduction of library automation to the developing countries, particularly Nigeria. I have recently returned from a visit to several University libraries in Nigeria, in connection with this research.

Mrs H. Dyer, also from this department, has recently written to your institution as part of a survey of educational establishments in the UK and their provision of IT-related courses specifically for overseas students, on behalf of the British Computer Society Specialist Group for Devloping Countries.

I am now writing to UK Library Schools and Professional Associations to find out what provision is made specifically for overseas students, in the area of library automation and the introduction of new technology to library services or, whether such provision is planned.

I wonder if you could spare the time to answer the following questions.

1. What courses covering aspects of new technology in libraries are offered?
2. How many overseas students are on these courses?
3. Are the courses publicised in developing countries?
4. Do you offer courses or course modules specifically for overseas students?
5. Has your institution ever held short/correspondence courses for overseas students covering aspects of new technology in libraries?

   If Yes, please give details of :

   a) Course title (and indicate whether short/correspondence/other type of course
   b) Duration of course
   c) Location of course
   d) Audience - number on each course and nationality

   If No, is your institution planning any such course for the future?

6. Do you object if I mention the name of your institution in connection with any courses you offer to overseas students, in my dissertation?

I would appreciate any further comments you may care to make about course planning for overseas students and I look forward to receiving your reply at your earliest convenience.

Thanking you in anticipation,

Yours faithfully,

S J Jupp (Ms)

APPENDIX 6

a) List of UK Schools of Library and Information Studies Surveyed

B	Brighton Polytechnic, Department of Librarianship
CBP	City of Birmingham Polytechnic, Department of Librarianship and Information Studies
CITY	City University, Department of Information Science
CLW	College of Librarianship Wales, School of Librarianship and Information Studies
ECHE	Ealing College of Higher Education, School of Library and Information Studies
HWL	Hammersmith and West London College, Centre for part-time Librarianship and Information Studies
LEEDS	Leeds Polytechnic, School of Librarianship
LIV	Liverpool Polytechnic, School of Librarianship and Information Studies
LUT	Loughborough University of Technology, Department of Library and Information Studies
MAN	Manchester Polytechnic, Department of Library and Information Studies
NUT	Newcastle-upon-Tyne Polytechnic, School of Librarianship and Information Studies
PNL	Polytechnic of North London. School of Librarianship and Information Studies
QUB	Queen's University Belfast, Department of Library and Information Studies
RGIT	Robert Gordon's Institute of Technology, School of Librarianship
SHEFF	University of Sheffield, Department of Information Studies
STR	University of Strathclyde, Department of Librarianship
U L	University College London, School of Library, Archive and Information Studies

b) List of UK Organisations Surveyed

ASLIB,	the Association for Information Management
IE	University of London, Institute of Education
IIS	Institute of Information Scientists
LA	Library Association
LTC	Library Technology Centre
NCC	National Computing Centre Ltd

APPENDIX 7
BRIEF SURVEY OF SOME OVERSEAS POSTGRADUATE STUDENTS AT LOUGHBOROUGH UNIVERSITY LIBRARY SCHOOL

Objectives of Survey:

To find out student opinions of the new technology content of the Master's courses in library studies.

Methodology:

Eleven students were interviewed briefly on the basis of the following questions:

1. What is your country of origin?
2. Which course are you on?
3. Before you came, what were you expecting to learn about computers in libraries?
4. In your opinion, was the coverage of computers in libraries:
   a) poor; b) about right; c) very good?
5. What do you think could have made the coverage better?
6. When you return home, do you expect anything learnt on the course about computers in libraries to be useful
   a) in the short term; b) in the long term,
7. Do you have any other comments about the course?

Results:

1. Of the eleven interviewed, four were Nigerian, one Kenyan and six Malaysian.
2. Five were on the MLS course (no core courses in new technology) while the remaining six were on the MA Library and Information Studies Course (Table A7).

TABLE A7: Students and Courses

	MA	MLS
Malaysian	5	1
Nigerian	1	3
Kenyan	-	1

3. Of the MLS students, three had no particular expectations, while two expected to learn about new technology and its library applications in the most general terms, at least.
The MA students had higher expectations in this regard. All but one expected the technical aspects to be more advanced, covering programming, systems analysis and development. The remaining one felt that the new technology components of the course were very advanced and more than adequate.

4. Of the MA students, four felt that coverage was poor, while one said it was about right and the remaining one thought it very good.

5. The MLS students all felt that an introduction to computers would have been very useful as a core course, and two felt very strongly that their expectations in this regard had not been met.

   The MA students felt that more practical work was required, and that more advanced applications could have been offered. Two thought that the DP project, whilst one of the most useful exercises on the course, was very broad and sufficient time could not be allocated to its preparation.

6. Two of the MA students felt that what they had learnt on the course about new technology would be useful in the short term, whilst the remaining students felt that it would be most useful in the long term. Four of the students considered that the aspects of on-line information retrieval covered were very interesting and of potential use in the future.

7. One of the MLS students considered that a course on Appropriate Technology would be useful.

   Others felt that practical use of computers should play a greater role in all aspects of the curriculum. While what was offered was good, it was insufficient and often did not meet expectations, especially where students had come specifically to prepare for library automation in their own countries.

   Two of the students expressed the view that although more advanced courses on computer applications were offered as options, choice of these courses was not made due to lack of confidence. Three said that they would not feel confident enough to choose hardware and software even after completing a specification.

Conclusions:

While new technology figures highly on the curriculum for the MA programmes, in practice overseas students felt that insufficient time was allocated to it. Few mentioned the computer component of the cataloguing/classification course suggesting to the Author that it was accepted and integrated into the work with few problems. Introduction of computerized systems in the future was seen as a major issue - the management implications of this were stressed. For this purpose, the preparation of reports and feasibility studies as well as the study of criteria for selection is seen as vital.

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(including specific works on Africa and Nigeria)

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