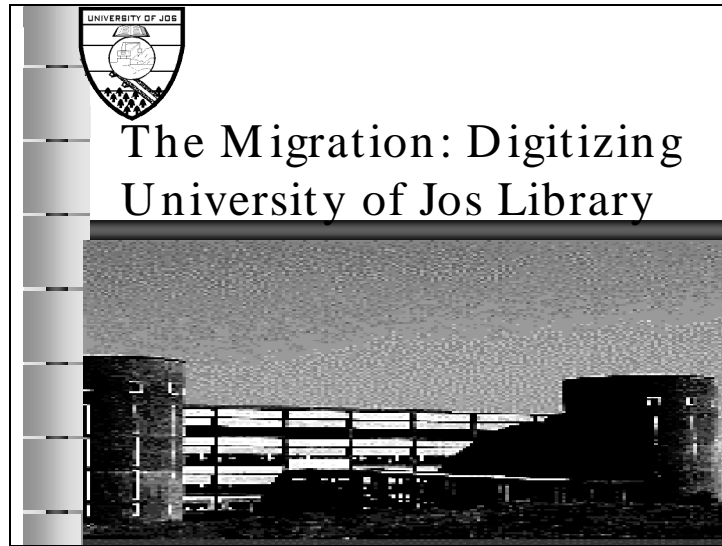
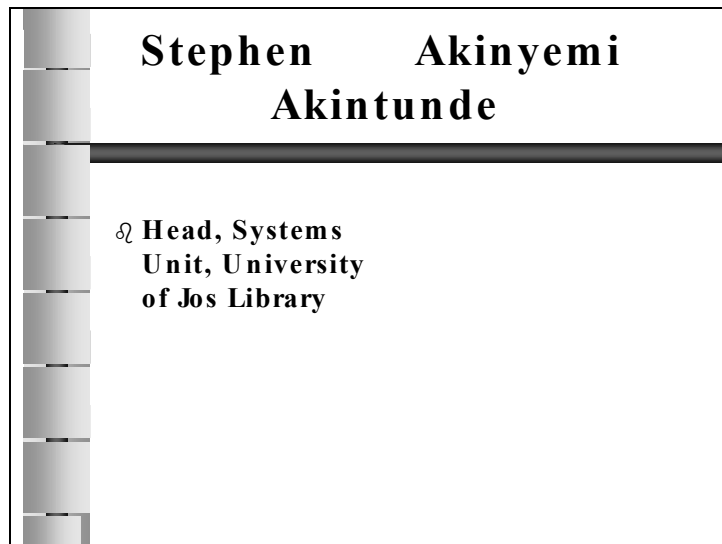


Slide 1



You are welcome to this presentation.  
Sit back and see what we have to offer.  
Its all about a transition..  
A great movement that has meant a lot to us here in Unijos.  
It is transforming our former ways of communication and all about information and people.

Slide 2

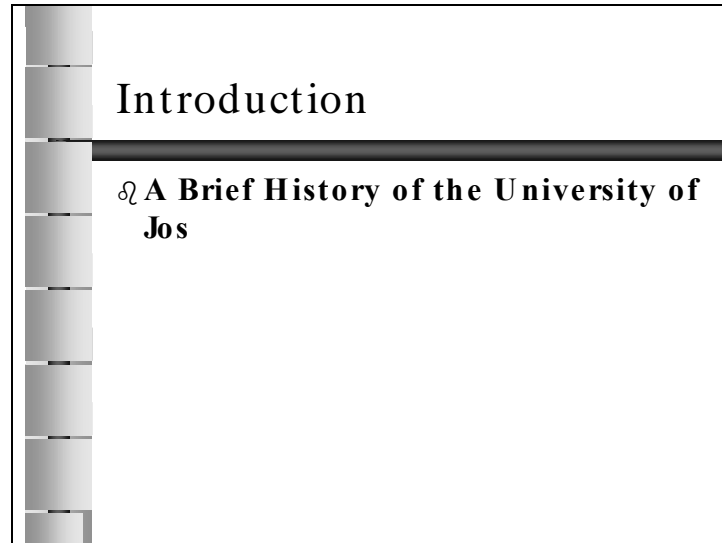


Stephen A. Akintunde has worked in the University of Jos Library since February 19, 1973. He has a Diploma in Librarianship from the University of Ibadan , a Bachelor of Science in Sociology and Anthropology from the University of Ife, and a Masters in

An Invited Paper presented at the *1999 Annual Seminar of the Committee of University Librarians of Nigerian Universities (CULNU)* held at the University of Jos, Jos, April 21<sup>st</sup>, 1999.

Sociology from the University of Jos. He has just completed his doctoral degree programme (yet to be examined) in the University of Jos. He was formerly Documents Librarian (1981 - 1994) and Serials Librarian (1995 - 1999) of the University of Jos. He has been Head of Systems Unit since January 1995.

Slide 3



The University of Jos started off as a campus of the University of Ibadan in 1971. It became one of the Second generation universities in the country with the promulgation of Decree 82 of 1979. At inception, only Arts courses were offered. Today, courses are offered in eight faculties:- Arts, Education, Environmental Sciences, Law, Medical Sciences, Natural Sciences, Pharmaceutical Sciences, and Social Sciences. There were 88 students and 12 senior staff. Today, there is a total of 10,000 students, made up of 5,000 first degree, 1,000 postgraduate, and 4,000 part-time students. There are 1,000 academic staff, 1,000 junior staff, and 1,000 other senior staff. At inception, the library collection was 1000 volumes and 40 journal titles (Akinkunmi, 1976: 5). Today, the library's collection is 100,000 volumes and 1,000 serials titles.

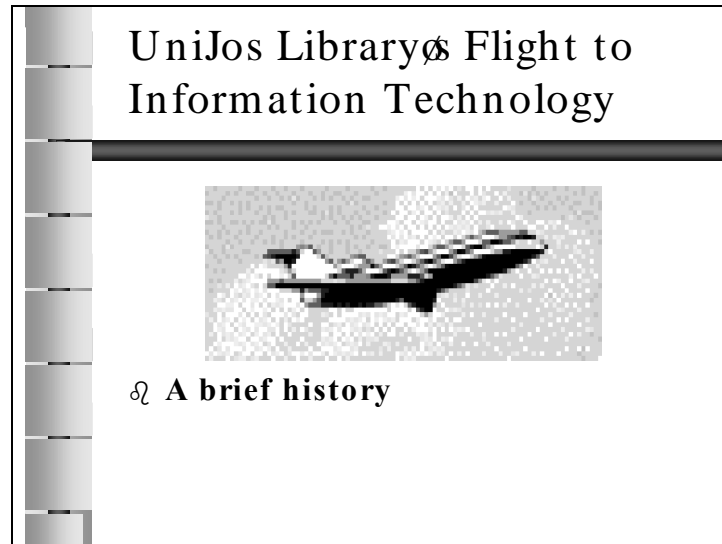
The campus was located in the present Township Campus of the university at Gangare Ward of Jos. The first Principal of the campus was Professor Emmanuel Ayankanmi Ayandele, a Professor of History from the University of Ibadan. Professor Gilbert Onuaguluchi became the first vice-Chancellor of the new University. The present Vice-Chancellor is Professor Nenfort E. Gomwalk. There have been three other Vice-Chancellors in-between.

The university presently operates from three campus:-

- a.) the **Township** (hosting Centre for Continuing Education, Medical Library. Library Bindery, Medical Departments of Microbiology, Community Health, and Ophthalmology)
- b.) **Bauchi Road** (University Administration, Main Library, Computer Centre, Centre for Development Studies, Institute of Education, Faculties of Education, Environmental Sciences, Law, Natural Sciences, Medical Sciences, and Pharmaceutical Sciences) and

c.) **Permanent Site** (Faculties of Arts and Social Sciences, Works and Maintenance Unit, and Physical Planning).

Slide 4



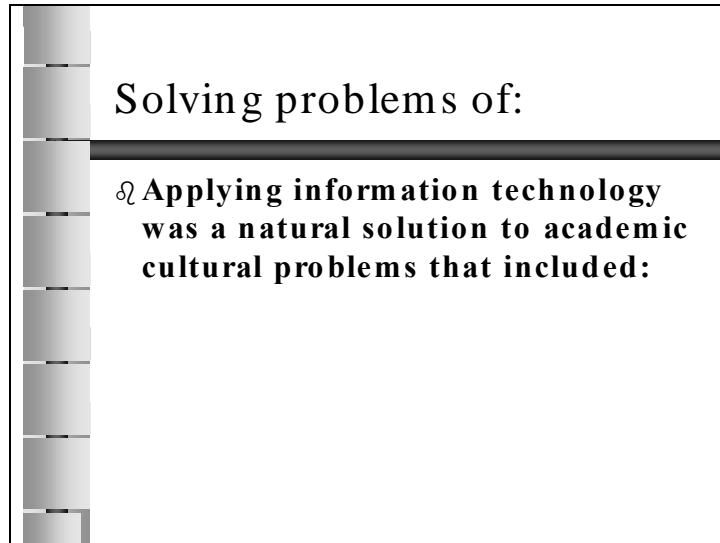
The University of Jos Library can today be said to have fulfilled the Chinese proverb of the journey of a thousand miles. The first step of the journey was taken some two decades ago in a goal - setting strategy by the late University Librarian Mr. BU Nwafor. At that time he had drawn up a "dream" organizational model in which a Systems Unit was conspicuously identified. With little initiative in the country towards digitization at that point in time, the Systems Unit was only a future possibility.

However, from the mid - 80s global events became more and more activated by automation. It therefore became imperative that the University of Jos Library no longer ignored the persistent use of digital communication. The international exposure that the late University Librarian - Mr. Bartholomew Udemmadu Nwafor had as Secretary of International Federation of Library Associations and Institutionsø Regional Section for Africa, Latin America, Asia and Oceania, and then as Secretary and Chairman respectively, of the Africa Section of IFLA, probably kept this idea of automation within the libraryø memory.

By the turn of the new 90 decade, the library found it as a necessary project to automate its services. This was not just because the traditional way of storing and retrieving data was becoming too monotonous, with obvious lapses, but because the new information technology had become irresistible for academic communication world-wide.

The present status of digitization in the University of Jos Library is attributable to the unrelenting initiative of Mrs.. Audrey Bernice Ojoade The current University Librarian (1992-).

Slide 5



As the adage goes, there is no smoke without a fire, so has it been that digitization of the university of Jos Library is a natural response to some obvious problems encountered in the process of communication both within the library and between the library and the outside world. The first visible problem was the generation of the library's serials list. Between 1980 and 1983 when the library's subscription to periodicals peaked at 2383 current titles, it became difficult to keep adequate records and produce manually much needed status reports as desired (Akintunde and Ojoade, 1996: 4).

Then, in 1986, the library was faced with the challenge of collating and editing index entries generated by universities in the country, apart from generating her own index entries for the new project of the Committee of University Librarians of Nigerian Universities (CULNU). It was a cumbersome job that a human - augmented system could facilitate.

Slide 6

## **Outdated texts,**

∅ Books, journals, government publications and even published seminar papers became scarce and outdated by date of publication

The beginning of the 80 decade ushered into the country an austere national economy. Towards the end of the decade, a devaluation of the national currency took place as a corollary to the introduction of Structural Adjustment Programme (SAP). SAP as a national economic policy was meant to lead to (Adedeji, 1990: 27-28):

- a.) Adoption of a realistic exchange rate
- b.) Adoption of measures to stimulate domestic production and broaden the supply base of the economy
- c.) Further rationalization and restructuring of tariffs in order to aid the promotion of industrial diversification; and
- d.) Reduction of complex administrative controls simultaneously with greater reliance on market forces.

Slide 7

## **Foreign exchange,**

∅ Devaluation of the national currency, unfavourable import tariffs for books and stagnating budgets for university libraries did not help matters

In the process of implementing SAP, foreign exchange became very difficult to acquire. Books and journals that were hitherto imported could no longer be imported as the library could not afford the prohibitive foreign exchange regime. Moreover library budgets were stagnated from source. Since all the Federal university libraries depended solely on the National Universities Commission (NUC) for funding, a financial crisis set in in many of the libraries including the University of Jos Library.

Also affected in the national financial crisis were publishing houses. They too experienced a difficult time because of customs tariffs that were unfavourable. Most of the journals naturally became outdated, especially those that were subscribed to from abroad. The locally published ones could not pass beyond what has become a slogan of "Volume One Number One". It was a near frustration for academics whose sometimes misplaced aggression led them to easily pass judgement of "guilt" on libraries. To them, the libraries were always empty (even with more than 100,000 volumes).

What this situation translated for the University of Jos library was that by the middle eighties, a backlog of books and journals to be ordered had built up. It became necessary to wade through the maze of order slips in order to re-order core books and journals, and to distinguish between those that could be supplied locally and those from abroad (Akintunde and Ojoade, 1996: 6).

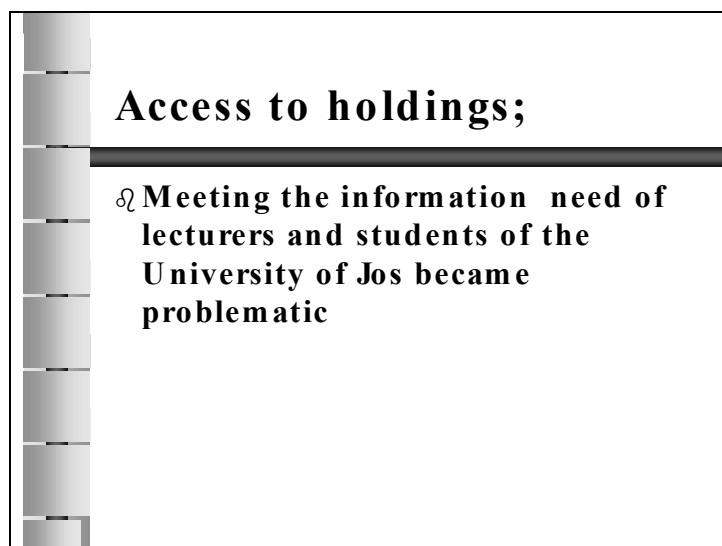
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**Theft and mutilation of library materials,**

∞ This hydra-headed monster in libraries became more visible in the most difficult period of funding

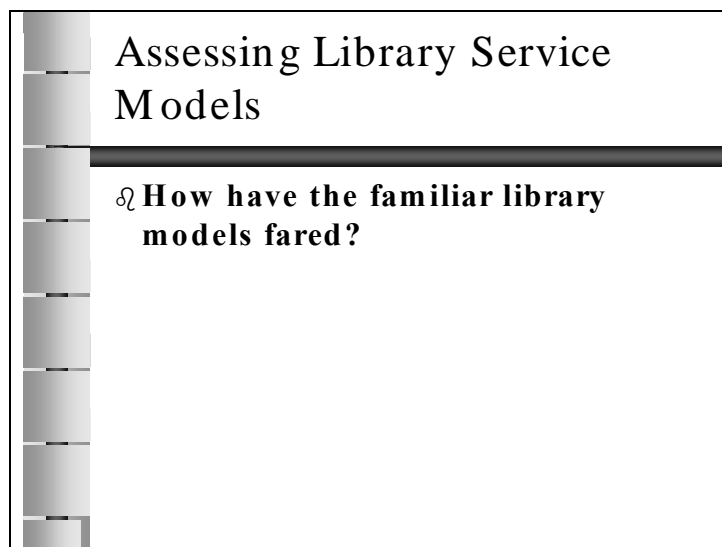
Some of the results of the financially-induced crisis in libraries were the intractable cases of "text mutilation, theft, rip-off, long overdue books and the hiding of texts in different sections of the library in order to shield recommended texts from fellow students" (Akintunde, 1995: 263). The university of Jos library shared in this national malaise.

Slide 9



Having witnessed the crumbling of the tradition media of information dissemination, the university of Jos librarians were forced by circumstance, to find out how to meet the information need of their clients. The problem was that even though it was a national problem, academics and students, at the height of need, still expected the library to miraculously get them required texts. Failure to meet this need further confirmed a negative public image of the library in the university community.

Slide 10



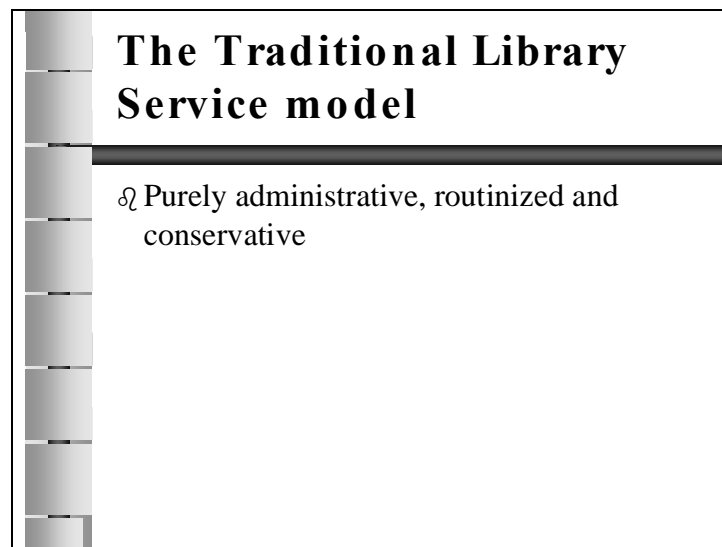
In providing library services, models have always being used as a guide. The university of Jos library has had cause to assess library models at least twice in her history. The first time was in 1979. At that time, the campus had become an autonomous university only two years previously. Similarly, the first University Librarian had assumed duties only two years back. Student and staff population had increased more

than 400 per cent when compared to the previous *campus* status. It was therefore imperative for the library to determine the best way of organizing her staff for service and to meeting the information need of clients.

The second time was between 1992 and 1993 when, because of the protruding application of information technology in library processes world-wide, the library established a Computer Unit. This unit was to be the factory of digitization of the library.

The establishment of this unit resulted in a new pattern of relationships among staff of the library. It was actually supposed to be a perfection of the Subject Libraries model adopted by the library and which was no longer having the desired impact in the community.

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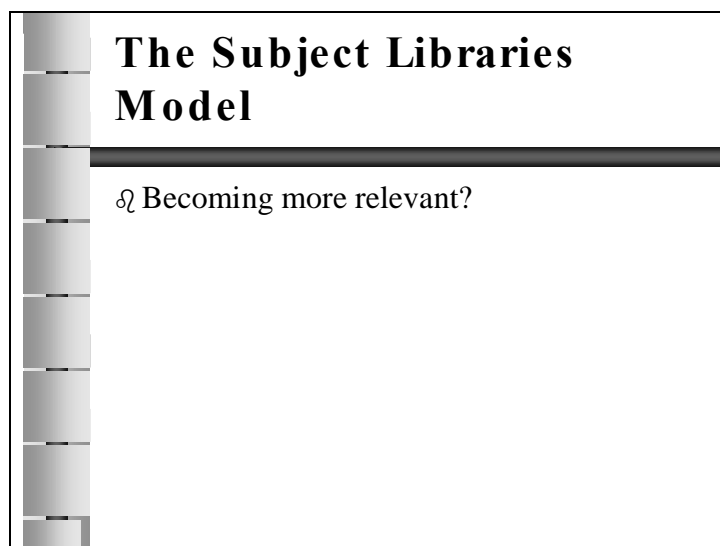


The traditional library organizational model is a less flexible and more administrative than service - oriented model. The university of Jos library tried this model only during the transitional period from being a campus status to full university status. It is a more compartmentalized system that tends to say that service begins after the library house is fully in order. But, the point is that the house can never always be fully in order.

It lays the burden of developing library collections on the ingenuity of librarians. It also says that only librarians know the best way of delivering services. In effect, it places undue burden and pressure on librarians. In the process, the librarian is exposed. He is easily faulted because of inability to live up to his asserted *claims*. The library image suffers. The attraction of the profession to potential entrants is severely curtailed because of the conservative and unproductive presentation they see of the practitioners.

Slide 12



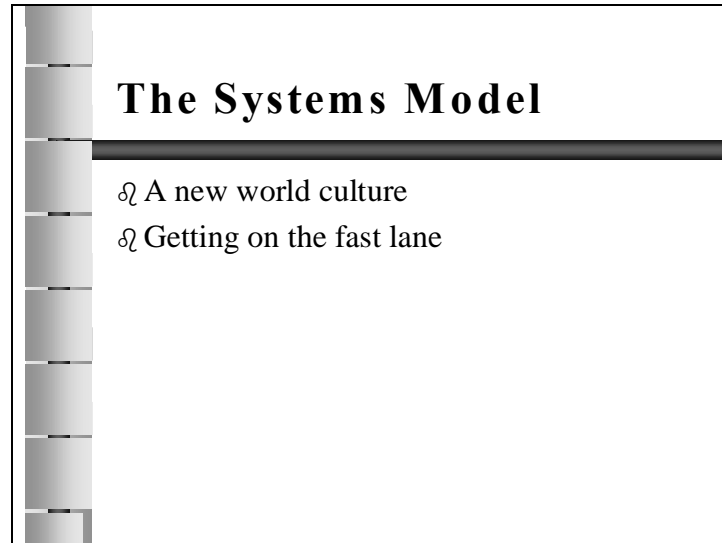


The Subject Library was more or less "The Model" between mid - 80s and early 90s in African university libraries. It is a service model that joins users to librarians for the responsibility of developing library collections. An earlier study of the operation of subject libraries in African University libraries found that the university of Jos was the only institution that practiced it in its purest form (Avafia,1984). Another study of the university of Jos discovered that whereas the library had conceptualized this model, the operators (Library staff and faculty) were not fully utilizing its potentials (Akintunde, 1990).

Whereas the traditional model brings clients to the library, the subject libraries takes the library to clients. The strategy is to allow the evaluation and development of library services to be carried out jointly by clients, especially lecturers, and librarians.

Generally, the model, which also confers faculty status on librarians, enhances the social prestige of practitioners. It challenges librarians to be current not only in the knowledge of library resources, but even academically, especially in the subject area in which they qualified, are supervising, or offering services. This is supposed to be the model operational in the university of Jos library, but for the development of her Systems unit that has radically changed the face of library services on the campuses.

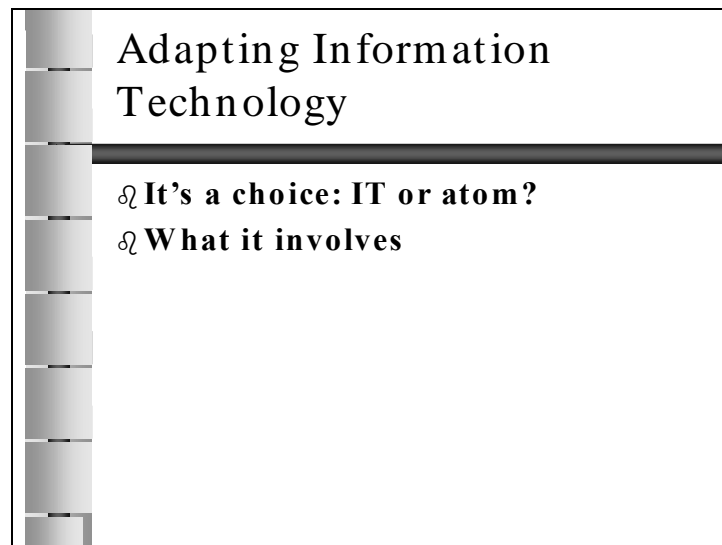
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The Systems model as evolving in the University of Jos library has been a natural process anteceding from the problems earlier highlighted. The model is a service model that attempts to fit into the new world information technology culture. Because of the sudden superimposition of information technology for academic communication world - wide, the systems model is both desirable and favoured especially by clients who want information at whistle time. It attempts to make resources available in digital format and make this available on - line.

The University of Jos library experience tends to suggest that the systems model could emerge from any previous model that would embrace the new information technology. As discussed earlier, the systems unit had been a latent unit until 1992 when it was necessarily activated. The systems model is the model of the future.

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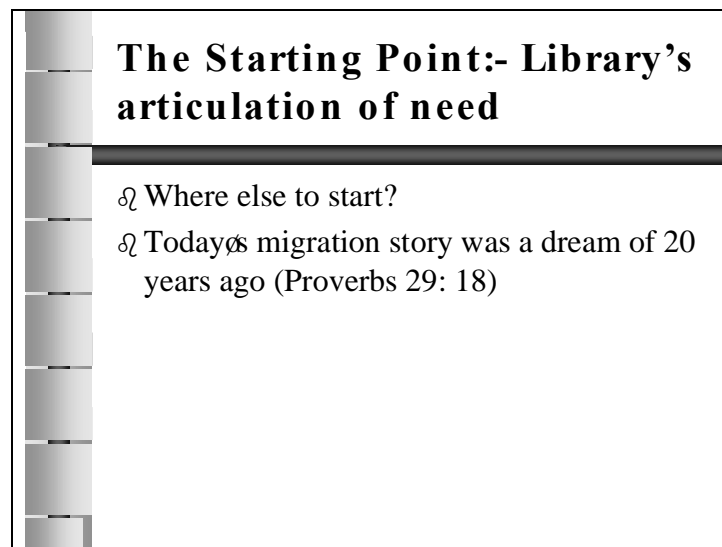
Adapting information technology in the University of Jos library process was a choice that had to be made. We had a choice to either:

- a.) join the information technology revolution and become more relevant, or
- b.) continue with our traditional method of library service which was becoming more boring and antiquitic in the face of globalization of information, economies, and cultures, generally.

The adaptation also required :

- a.) articulation of need
- b.) training of staff
- b.) acquisition of technology, and
- c.) behavioral adjustments.

Slide 15



**The Starting Point:- Library's articulation of need**

- ∞ Where else to start?
- ∞ Today's migration story was a dream of 20 years ago (Proverbs 29: 18)

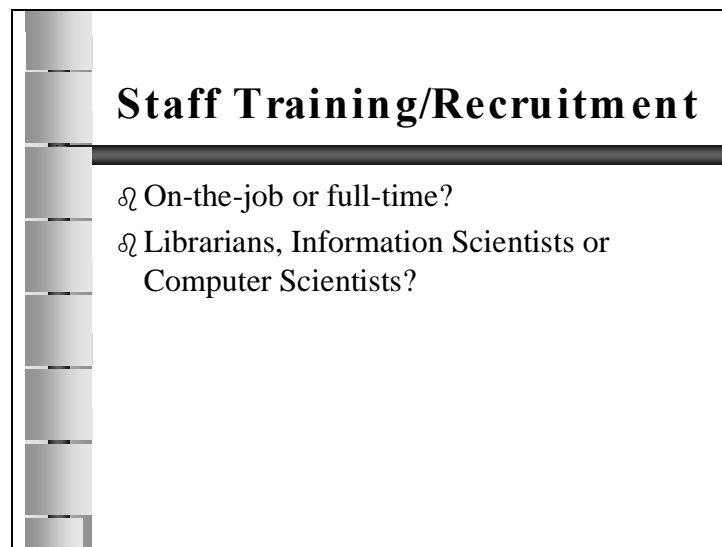
In opting for digitization, the library's millennium dream was being actualized. Realizing that automation would inevitably lead to a new culture, the Library Administration of Nwafor started by having brainstorming sessions that involved all heads of library units. That was in the mid - 80s. Both Mr. Nwafor and Dr. Peter Nedosa led the discussions. Dr Nedosa particularly made some presentations on automation.

In 1987, he was joined by Mrs. Apeke Ajulo and Stephen Akintunde in bringing up a sort of Blue - print for the library's automation. Their report titled: Developing a Computer - based Library System in the University of Jos Library, opted for a turn-key system that would allow the library to easily embrace future developments in information technology in the future. The circulation and cataloguing processes were singled out as potential starting points for automation

Two other committees were consequently set up. One in 1989, to advice the Library Administration on the necessary steps to take in the ultimate automation of all or part of the processes. The other was set up in 1993 to oversee the library's computerization process and make policies.

Having articulated her need, and because of her limited knowledge of information technology, the library, in 1990, invited four local consultants/vendors to carry out expert feasibility studies of systems needs and cost. They were Commercial and Scientific Computing (Nig) Ltd., Equity Computer Systems Ltd., Bragl, and, Datamatics. The submissions from these four vendors were put together and sent for evaluation to a sister library that already had an established automated system - the library of the International Institute of Tropical Agriculture (IITA) in Ibadan. Parameters used for evaluation by IITA were: problem definition, application software, computer hardware, computer peripherals, consumables, training and, maintenance. One of the vendors was recommended. Further tips were also given to the library on how to embrace the new technology (Akintunde and Ojoade, 1996)

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Perhaps the next most important thing after articulation of need, was the development of staff competency to manipulate the new technology. There was a plan to utilize opportunities of short courses as well as full - time courses in training staff. Thus, the library had three of its staff listed to benefit from the World Bank - enhanced short courses. Unfortunately, the library could not benefit from this arrangement until the expiration of the NUC - World Bank programme. The library also sought to train her staff at the West African Regional Centre for Information Science at the University of Ibadan. She succeeded in getting only one staff trained to date. All other attempts did not succeed.

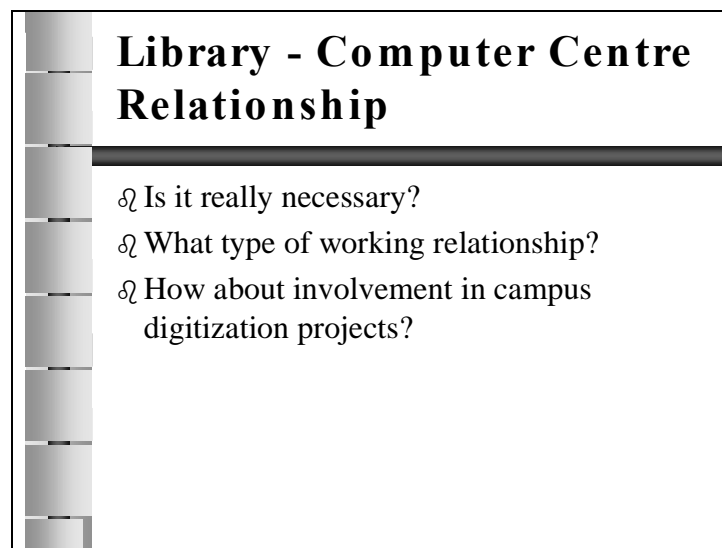
Faced with this reality, the library had to rely on the initiative of staff in adopting the new technology. Skills acquisition of staff in the new technology has, therefore, essentially , been self-taught. In 1996, an attempt to train librarians by the Computer programmer posted to the library from the Computer Center did not quite succeed.

However, since the end of 1998, library staff have benefited from appreciation courses run by the University's Computer Center for academic staff and administrative staff respectively. And, since January 1999, librarians and few other staff have improved

their information technology skills by enrolling in a series of classes offered by Mr.. Cliff Missen, a Fulbright scholar from the University of Iowa, United States of America. The classes include Database Management, Web page design, and Internetworks in International Development - a course that is offered in three continents at the same time. Two of the library's typists have benefited from the more formal courses offered by the Computer Center: - Diploma in Computer Applications. Two are presently on the course, while two are waiting on the wings.

The library still desires to train librarians in particular, both formally and through short courses on IT. The experience of the University of Jos library suggests that the organization would benefit best if librarians, and not computer scientists, are trained to operate and look after systems in the library.

Slide 17



**Library - Computer Centre Relationship**

- ∅ Is it really necessary?
- ∅ What type of working relationship?
- ∅ How about involvement in campus digitization projects?

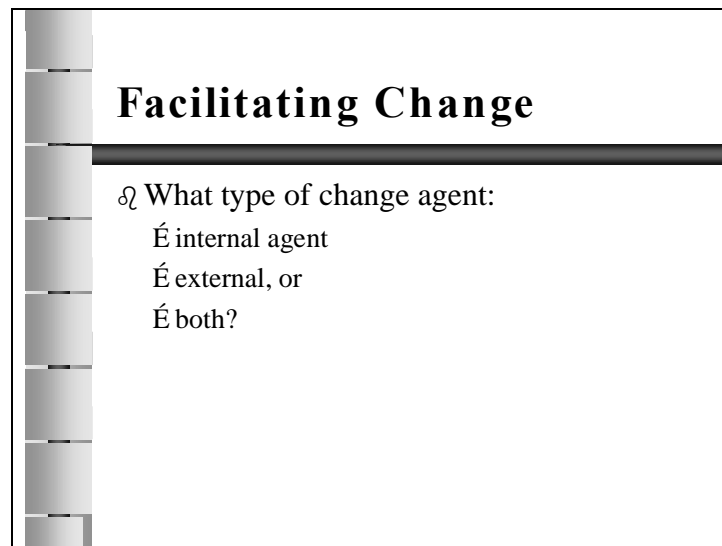
In the course of digitizing, the library had found it imperative to establish a working relationship with the Computer Center. The Director of the Computer Center was involved in the prescription of specifications for the library's computerization needs as early as 1993. The Director is still being consulted today for technical advice on the library's digitization needs. So far, it has been a good working relationship.

One of the Center's staff - a Programmer, was seconded to the library to assist in the automation of the library. This was considered appropriate at the introduction of The Information Navigator for Libraries (TINLIB) when none of the librarians had any prior knowledge of the software. Moreover, as at that point in time, the Computer Center had not acquired any computer system of her own, whereas the library had up to three Personal Computers. The library administration of Mrs. Audrey Ojoade had acquired, from library votes, the first PC on October 7th, 1992, and the second on August 12th, 1993. The NUC's donation was received on September 221, 1994. The library presently has nineteen PCs. Twelve of these are networked in the university's intranet.

The University Librarian is a member of the University's Computer Committee. The Head of the Library's Systems Unit is a member of the Management Information System Committee, Nigerian Universities network (NUNet) committee as well as some

other committees that have been set up to facilitate digitization of the university. The Director of the Computer Center and the Chairman of the University's Computer Committee are both members of the Library's Computer Policy Committee. The library can therefore be said to be in the forefront of the digitization project of the University of Jos, having cultivated a good working relationship with the Computer Center.

Slide 18



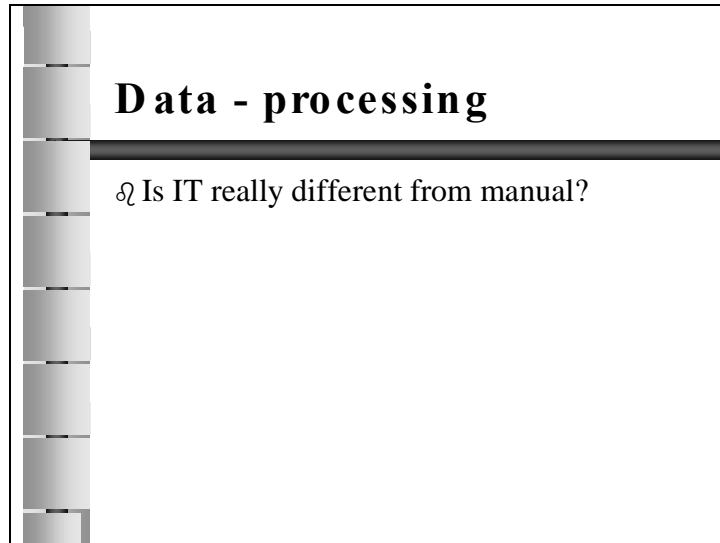
**Facilitating Change**

- ∅ What type of change agent:
  - É internal agent
  - É external, or
  - É both?

As mentioned in the previous section, introducing automation and digitization required the involvement of both library staff and non - library staff. Our experience tends to prove that internal and external change agents are both necessary but at different times. The external agent might be needed at the introduction of a new technology when the internal staff are not trained. He might also be introduced along the way to stimulate the drive.

The latter is our experience with the Fulbright scholar who has literally livened up our journey towards information technology by turning our automation project into digitization. Whereas automation essentially applies information technology in the delivery of data, digitization goes a step further. It is a complete digitization of knowledge from creation through to consumption. It implies an entirely new culture. The internal change agent is needed to sustain the drive towards the new goal. He is conversant with the organizational goals and sees the project as his.

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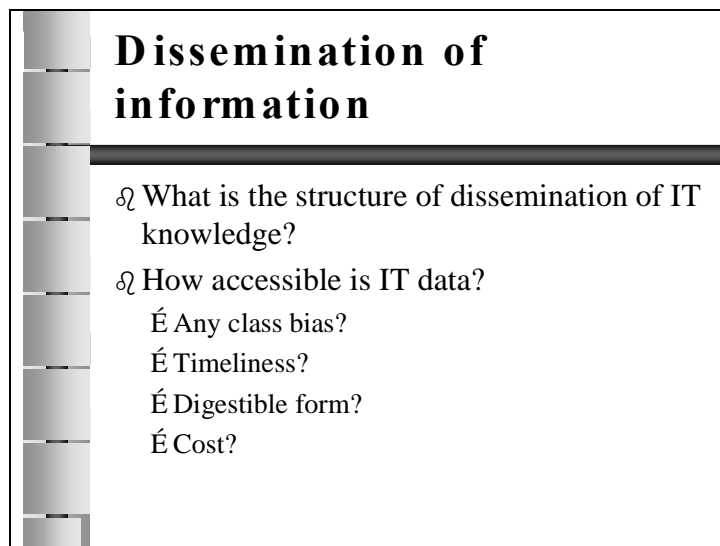


**Data - processing**

∅ Is IT really different from manual?

For a project that seeks to overthrow an existing and familiar method, the questions to ask include the potentials it has over the previous. Based on what we have seen so far, we can say that IT has a cutting edge over the manual processes. This is demonstrated below.

Slide 20



**Dissemination of information**

∅ What is the structure of dissemination of IT knowledge?

∅ How accessible is IT data?

- É Any class bias?
- É Timeliness?
- É Digestible form?
- É Cost?

In terms of the dissemination of information, the network system both for cataloguing and circulation processes and the campus - wide intranet, have made the storage and dissemination of information more flexible. Data can be generated from any PC within the network. It is then stored in the server which releases the needed information to the client whenever it is called up. This process makes disc space to be freed on client machines. But it also requires that adequate back - up be made for the data in the server in the case of a systems brake down.

On accessibility to resources held by the digital library, it is, literally, easy. However, the measure of benefit gained may depend on the researcher's ability to personally manipulate the computer or software. We do not discriminate on who accesses our digital resources. Staff and students have equal access. But the time spent on exploring resources may depend on the queue that may have built up to use the few machines available in the Library's Computer Laboratory. Many times, this queue is quite extensive.

The data available are usually packaged in digestible form:- direct to the point. This is characteristic of digital information.

The data, especially those that come in Compact Disc Read Only Memory (CD - ROM), are usually updated periodically. The currency of the library has therefore always depended on our ability to obtain updates. For most of the CDs that contain abstracts for literature searching, we are very current to the latest month of release.

We do not charge for accessing the databases or the network. But we do charge for print - outs at 5N for a dot-matrix, and 10N for laser printers.

Slide 21

## Internship

- ∅ You cannot do it all alone
- ∅ Interns provide opportunities of mutual benefits
- ∅ Trade marks of interns:
  - É creativity
  - É speed
  - É teachability

Through the intervention of our outside change agent - the Fulbright scholar, we have found the use of interns quite facilitative. Interns are likened to Student Library Assistants. Their exception is that they are digital assistants. They are students of the University of Jos in various disciplines who were employed centrally by the scholar and released to units on campus that were carrying out specific projects.

They have been quite effective in the creation of the library's Home Page. They have a peculiar trait: - creative, adventurous, and usually very willing to learn. However, the supervisor must necessarily be at least one step ahead of them in the manipulation of computers otherwise, they would easily exhaust their job schedule. Three interns are presently serving in the library.

Slide 22





Web page design is as intricate as the web. It is also as funny as the overwhelming designs that are available. Web page design has helped us to standardize some of our data structures. We are able to distinguish between those data that would be available to the general public and those that are purely for internal organizational consumption.

Making library resources available on the Web does give some relief to both library staff and clients who can now browse the web at their convenience instead of harassing the staff all the time. However, before the library staff enjoy this rest they must spend time and make effort in designing a page that can be browsed with the least obstacles. Web page design is actually a skillful and interesting task that can be mastered by anyone that has time to learn it.

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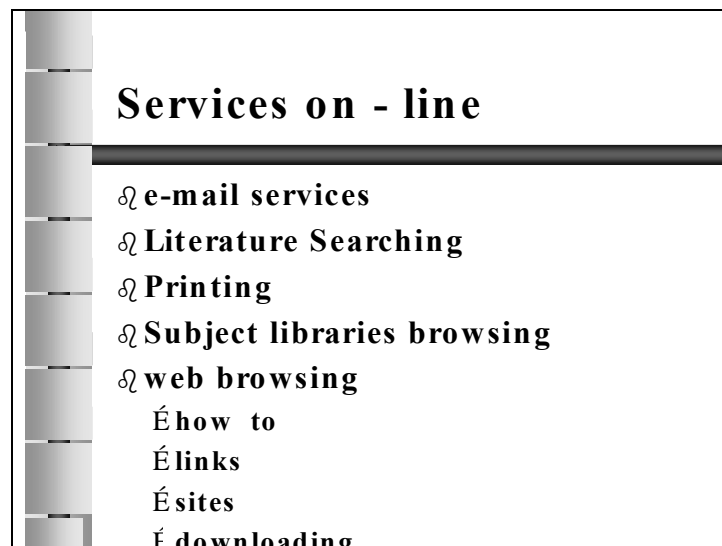


**Services Available**

∅ **Unquantifiable. A few may be listed:**

The University Libraries currently offer quite a number of digital services.

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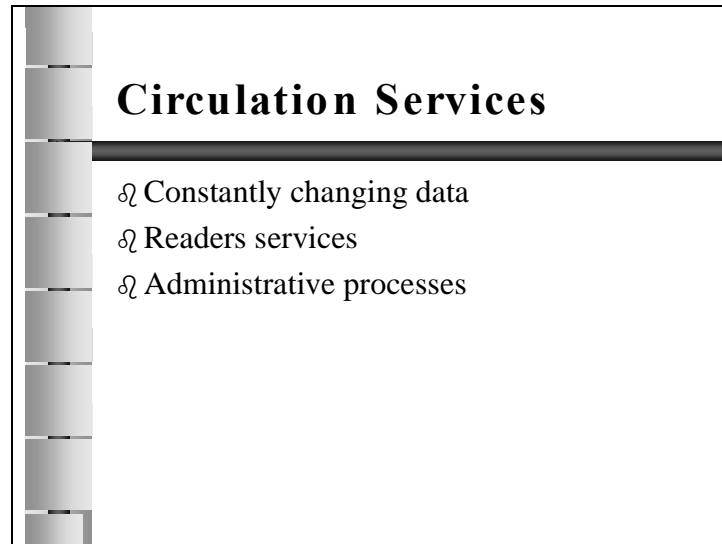
**Services on - line**

- ∅ **e-mail services**
- ∅ **Literature Searching**
- ∅ **Printing**
- ∅ **Subject libraries browsing**
- ∅ **web browsing**
  - É **how to**
  - É **links**
  - É **sites**
  - É **downloading**

Services offered on - line include:- electronic mail (e-mail) service, literature searching, printing, and Web - browsing. Staff of the university do access their e-mails in the library's computer laboratory. They can send and receive mails using the library's computers. Full - text and abstracts literature searches are also done in the library. The library's networked printer prints out works that are sent from any of the networked computers on campus - whether from the Vice-Chancellor's office, Education Faculty, MIS, Bursary, or Natural Sciences Faculty.

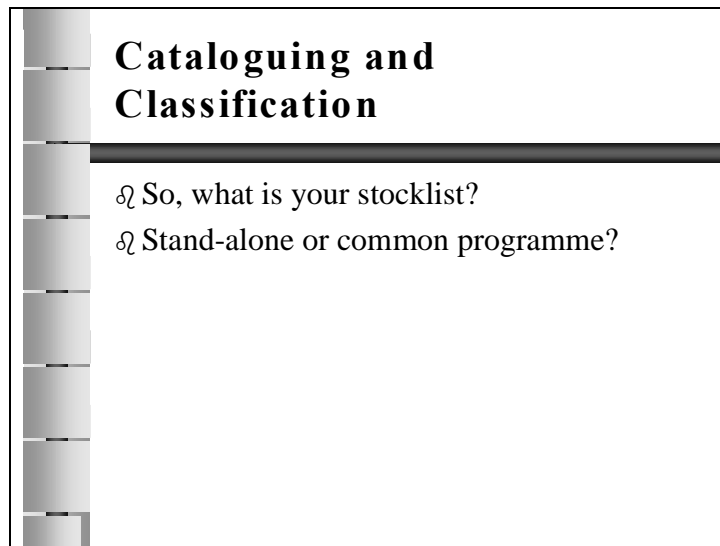
Both staff and students can also visit Web sites using the library's networked computers. The vast resources available on the web include the University of Jos Web Simulator that contains vital information on the University of Jos, The Virtual Hospital of the University of Iowa in the USA, the lecture hall of the Interline class, The Gutenberg Library that contains more than 1000 classical texts including the works of Shakespeare, the Holy Bible, etc. etc.; home pages of the University of Jos Library, several academic and other Departments, including personal pages.

Slide 25



Right now, what the library has digitized concerning circulation services is the registration of users using TINLIB software. We hope to make this available on the network in the next few weeks. We hope to place these records on limited access. In other words, it would be accessible only by operating staff. Meanwhile, other Circulation administrative records are being prepared for posting as Web pages.

Slide 26

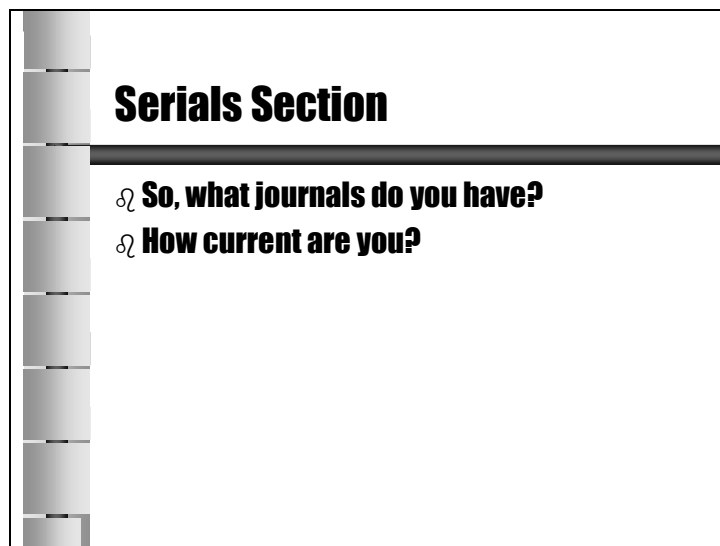


**Cataloguing and Classification**

- ∅ So, what is your stocklist?
- ∅ Stand-alone or common programme?

If there is any library data that should first be on the Web, it is most probably, data on the library's holdings. Like the Circulation records, these are also currently being entered in TINLIB, with the hope of migration to the Web in the next few weeks.

Slide 27

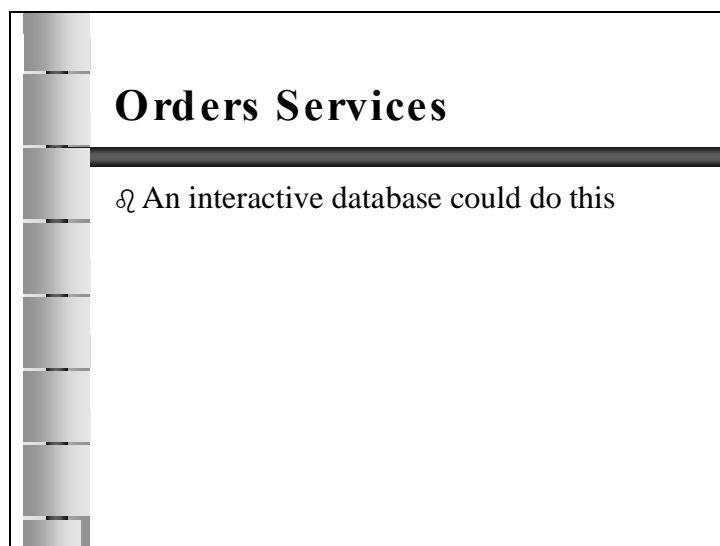


**Serials Section**

- ∅ **So, what journals do you have?**
- ∅ **How current are you?**

The library's list of over 1000 serials titles can now be viewed on the Web by staff and students at any point on the campus without having to come to the library to know the titles available, date(s) and issues.

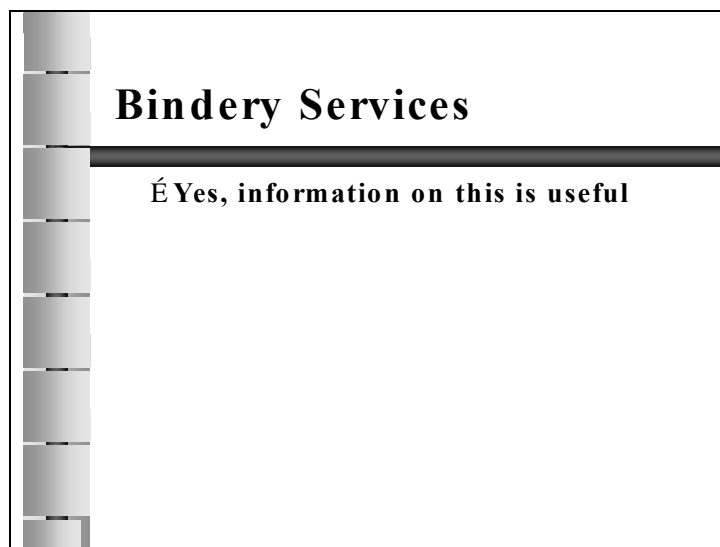
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The administrative set - up of the Orders Section can be viewed in the Library's Home Page in the Unijos intranet. It is helpful for those who might want to understand the process of ordering for texts in the library. A list of staff of the unit is also available there.

We are presently working on a suitable database to store the administrative data of Orders Section, as well as other units that have some substantial data.

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Information on the Library's Bindery Unit is also available in the Web. It provides researchers with adequate information on the cost of binding materials (projects etc) and general description of work flow.

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An Invited Paper presented at the *1999 Annual Seminar of the Committee of University Librarians of Nigerian Universities (CULNU)* held at the University of Jos, Jos, April 21<sup>st</sup>, 1999.

## Conditions for Providing Services

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- ∩ **Web browsing**
- ∩ **data processing**
- ∩ **dissemination of information**
- ∩ **printing**
- ∩ **word/data - processing**

We consider the provision of services to our clients in an acceptable way as fundamental. We therefore encourage our clients to access resources in the most convenient way. If a user is not computer literate, there is always a staff to assist. In the laboratory, there are usually at least two staff whose primary responsibility is the effective utilization of resources provided.

In order to prevent corruption of our systems, all our machines are equipped with up-to-date anti-virus that could be introduced by the use of different floppy diskettes. We have had a few cases of virus infection in the past, with some loss of data. We try to guard against this through the alertness of the laboratory Supervisor and the Assistant.

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## Providing Services

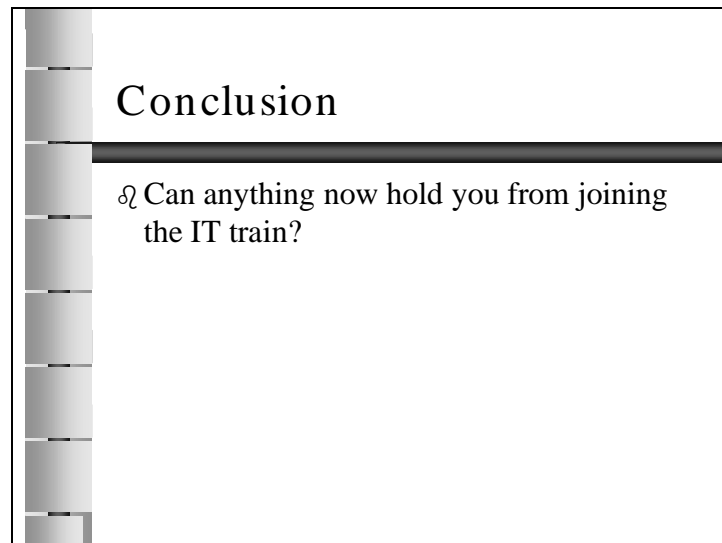
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- ∩ **Opening hours of Library Computer Laboratory**
- ∩ **Organization of services**
  - É **Organization of Staff**
    - ó **Duties: Aptitudes or Qualifications?**
  - É **Hub Maintenance**
  - É **Networked Facilities**

The Library Computer Laboratory opens from 8.00am - 4.00pm daily from Monday to Friday. We have had a lot of pressure to extend this hour. We cannot do this now because of inadequate manpower. But we perceive that by the time the university secures internet connectivity, we may be forced to find a way out.

The organization of staff for service is pyramidal. Data - entry staff are at the base. The Programmer is at the middle, while a librarian is at the top, coordinating and bearing responsibility for the development of the library's digitization initiative. The data - entry staff, who are former typists, are posted to the various units of the library to assist in digitizing their respective data. Only one is retained in the Systems unit to assist in the Laboratory.

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In this presentation we have demonstrated that digitizing the University of Jos Library has been a great migration that was purposed and is being sustained by the determination of the Library Administration to keep up with the new world culture of information technology. However, this initiative of the University of Jos can only be more relevant in the country if other Nigerian University Libraries pick up the challenge of digitization. It requires strategic planning. It involves cost. It will involve re-appraisal of budget spending. But, for all that it is worth, the University of Jos Library affirms that digitization is worth the cost.

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## References

1. Adedeji, A. (1990) Structural Adjustment for socio - economic recovery and transformation: The African alternative (Selected statements by Adebayo Adedeji) Addis Ababa: United Nations Economic Commission for Africa. X, 123p.
2. Akinkunmi, SAA (1976) The Library University of Ibadan, Jos Campus. Diploma in Librarianship Long Essay, University of Ibadan. (iii), 75p.
3. Akintunde, Stephen A. and Ojoade, Audrey B. (1995) "Automation in the University of Jos Library". 28p.
4. Akintunde, Stephen A. (1995) "Coping with increased enrolment in Nigerian Technological Universities' libraries". *IATUL Proceedings (New Series)*, Vol.4: pp.262-266.
5. Akintunde, Stephen A. (1990) "Towards a history of Faculty-Library relations in the University of Jos". *African Journal of Academic Librarianship*, 8 (1 & 2): 27-34.
6. Avafia, Kwami E. (1983) Subject specialization in African University Libraries. *Journal of Librarianship*, 15(3): 183 - 205.
7. Federal Republic of Nigeria. University of Jos Decree 1979 (Decree No. 82), Official Gazette, Volume 66 Number 48, September 29, 1979.