Using ICT as a Platform for Effective Information Services Delivery in Information Age: Kenneth Dike Library, University Of Ibadan Experience

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Abstract

Teaching, Learning and Research (TLR) initiatives in the institutions of higher learning, particularly in the University systems in the Information Age, are driven by digital data. Academic Libraries worldwide are emerging as critical partners in the creation, access, use, and preservation of (TLR) data. Digital stewardship, infrastructural development, economic models, and policies required to administer and protect TLR data, present both new opportunities and challenges for 21st century libraries. Addressed in this write-up are documentations of some of the things that Kenneth Dike Library, University of Ibadan, Ibadan, Nigeria has achieved, using Information and Communications Technology(ICT) as a platform to enhance an efficient and a robust information services delivery in pursuant of TLR initiative of the University of Ibadan.

Keywords: Information and Communications Technology (ICT), Information Services Delivery (ISD), Academic Libraries (ALs), Digital Age

Introduction

Rapid development in Information and Communications Technology (ICT) has radically changed the library and information environment. The days of stand-alone libraries, in which a library was judged not by the quality of its resources and services but by the number of documents it had available, are long gone. Traditional libraries were dominated by print publications and the access mechanisms were also by and-large manual. The paradigm shift from stand-alone libraries to library and information networks, available via the Internet, can provide end-users with a seamless connection to Internet-based services. Moreover, we are surrounded by an era of automated, digital, and virtual libraries as well as by networked data, specialized networks, and library networks, in addition to multimedia and the Internet which have further made the job of library and information professionals more challenging (Nithyanandam, 2006).

Information technology has transformed the whole world into a global village with a global economy, which is increasingly dependent on the creative management and distribution of information. Over the past decades, the world has been experiencing significant changes in which the need to acquire, utilize and share knowledge has become increasingly essential. Now in the 21st century, the age of knowledge and information is in its higher gear. This is an age when invisible knowledge and information take the role of prime movers leading all sector (Feather, J. 2000). The information society has passed through four transitional stages: early ancestor of mankind, agrarian societies, industrial societies and the 20th century (Abell, 2001). The 20th century stage has brought a never-ending revolution, particularly with the introduction of Information and Communications Technology (Callaghan, 2002)

Information has become more complex and expensive. In this context, the basic challenge is to convince and convert traditional library users into users of Internet-based resources and services. Therefore, effective information delivery system becomes an essential paradigm that would lead to the development of a robust library system, thereby bringing about a change in orientation in users' information seeking pattern and utilization. This, however, entails the development of Information Technology (IT) related competencies among librarians and end-users as it includes basic computer and network literacy. The aim of information literacy is to make information users capable of locating, retrieving, and using information.

The challenges of using the Internet by Librarians

Remote access to resources is in some way clearing out physical libraries (Agee and Antrim, 2003), transforming them into cybraries, libraries without walls. In an age where technology, especially internet-related technologies, has become fundamental in every library operation and service, but also in the information habits of users and people in general, this literature review has been conducted mainly to allow the perceptions and expectations of librarians and information professionals toward the new information environment to emerge – how practitioners respond to an online information world which users take "for granted" (Tenopir and Ennis, 2001), and the roles librarians can play in this scenario.

The vast amount of information available to users today through traditional and less traditional channels presents librarians an ongoing challenge to offer the adequate answers to their information needs, as Zumalt and Smith (2000) claim. Indeed librarians do not want to avoid this confrontation, providing their users with their

expertise in organising resources often making "them available to the entire Web community".

The Internet, as a chaotic repository for the collective outputs of digital printing process, poses another challenge to the librarians in terms of usage. Holistically, it affects their jobs performance and working practices. According to Bowman (1994), knowledgement, with respect to navigating through the Internet is now becoming a basic requirement for information professionals. Librarians should not only see themselves as users of the Internet but also as providers of information from the Internet. In essence, they should see themselves as information navigators as well as search specialists for the benefits of library users. There is a growing need to support users in the form of training, with librarians serving as vanguards in order to provide them with the necessary skills needed for effective exploitation of other sources of information, particularly those available online. Users need to be introduced to different on-line catalogues and their search procedures. Online registration of relevant electronic databases should be undertaken by the systems librarian in collaboration with other technical staff of the systems unit upon approval by the management of the university library. There is also the need for an interactive library website, the content of which must be provided by the librarians. The site will assist in complementing the efforts of the management in marketing the library through population of current information on daily basis. The website must be properly edited in order to project the image of the library and at the same time improve its readability. Online help desk services can also be provided through the provision made on the site. These identified areas and many more are suppose to be coordinated and proper leadership role model provided by the academic librarians..

The Challenges of effective use of Information services delivery Platform.
Developments in Information and Communication Technologies (ICTs) have impacted all sectors of society, including the education sector. In higher education, application of ICTs in form of e-learning is already changing teaching and learning processes. There are many pedagogical and socio-economic factors that have driven higher learning institutions to adopt e-learning. These include greater information access; greater communication via electronic facilities; synchronous learning; increased cooperation and collaboration, cost-effectiveness (e.g. by reaching different students and in greater numbers) and pedagogical improvement through simulations, virtual experiences, and graphic representations. Both trainers and learners can choose more appropriate applications which are flexible in time, in place, personalized, reusable, adapted to specific domains and more cost-efficient (Fisser, 2001; Pelliccione, 2001).

Despite the growing list of benefits that information services delivery offers, there are still some challenges that are posing serious threats to achieving this in respect of Kenneth Dike Library, University of Ibadan, Nigeria. Prominent among these is the reluctance on the part of the users to utilize the available electronic resources through KDL to its full potential.. Dependency on print-based materials is still well pronounced among greater percentage of users of Kenneth Dike Library (KDL). Many students and researchers alike prefer print-based documents thereby lose sight of those held in electronic format. The implication of this is that the perceived benefits associated with the use of electronic resources will not be achieved. Again, the library of the future is more likely to hold or provide access to a merged blend of traditional and electronic sources of information, with electronic resources becoming increasingly more important. Electronic information is also more likely to become the norm in every sphere of life, both at work and leisure. Students, therefore, need to learn and practice today those skills that they will need in order to exploit electronic resources in the future. In addition, those who already use electronic resources might feel that they do not need to learn how to evaluate them. There is a danger of high recall being confused with high precision. Users might be satisfied with results obtained from database searching which is, in fact, less satisfactory than those retrieved by a trained intermediary (Biddiscombe 1996). Skills required to realize the full potential of electronic resources are usually much greater than those required for exploiting print sources (Dutton 1990). Users may not understand the stechnical skills needed to search electronic resources that can appear deceptively easy to use (Brophy 1993). They may need technical guidance to acquire the transferable learning skills required within a controlled environment.

User education programme as an enabler to effective Information Services Delivery
The complexity of Information demands that users should be equipped with the knowledge that would enable them to obtain information easily and timely. For users to obtain precise information in their subject areas or research fields, they require a much more focused and deterministic approach. However, most users usually lack this vital knowledge, thereby incapacitating the user's ability to maximize library resources for enhanced learning. Since the academic librarian is well trained for the purpose of enriching the users experience in getting the right print and electronic resources, educating the user on the steps to take to satisfy his quest for information becomes the responsibility of the librarian. User education will therefore enhance the ways users seek information and equip them with the required skills and techniques to efficiently search for bibliographic and electronic databases.

Why user education Initiatives?
The adage goes 'If you do not know the value of something, abuse is inevitable'. Proper user education is needed in order for users to be properly guided on dos and don'ts of the library and at the same time to get them acquainted with what are available and how to go about accessing them. The way to go about this is to organize library orientation programme for students (both Postgraduates and Undergraduates) at the beginning of every academic year or semester. It should be applicable to all the users of the library, particularly students (both postgraduates and undergraduates).

The second stage is organizing subject oriented instructions for undergraduates at a stage when they are admitted to a special branch or subject of their choice or at the time of project work.

The third stage addresses literature search training, which should be made provision for at the beginning of their research work, especially for post graduate students.

Knowing which level of user education is required by a particular group of students enables the librarian to determine the aims and objectives of the session. The three main aims of user education regardless of level are:
• To train the user to exploit the library resources effectively.
• To provide the user with the skills for independent information seeking.
• To encourage the user to seek the assistance of library professionals.

Importance of User education to students
To foster information literacy, the importance of user education must be highly emphasized to student. If study programmes are to be based on the students' active search for knowledge, then students must acquire sound knowledge of searching for, evaluating and utilizing scientific and scholarly information.
Kenneth Dike Library is currently observing library orientation and training in information retrieval skills (i.e. "user education" in library technology).

Information and Communications Technology (ICT) adoption in the Libraries
In our contemporary society, the concepts of libraries have been redefined as a result of the change in its role definition. In the modern society, where the use of electronic services and web based information sources constantly increase, libraries are managed in a more democratic way, have more flexible communication and system and work organization, and their service development is based on the quality of user-orientation of services.

Information and Communications Technology (ICT) provides a broad perspective on the nature of technology, how to use and apply a variety of technologies, and the impact of ICT on self and society. Technology is about the ways things are done; the processes, tools and techniques that alter human activities. ICT can also be viewed as the contemporary way in which people communicate, inquire, make decisions and solve problems. It ushers in in terms of library services, the processes, and techniques of:
• gathering and identifying information
• classifying and organizing
• summarizing and synthesizing
• analyzing and evaluating
• speculating and predicting, and lots more.

Arising from global trend, librarians are now poised for training and retraining to enable them be part of the bridging tools in the digital-divide. They are ready to play more active roles, using the Internet, and its associated components cum other peripheral devices as tools for generating, obtaining, processing, storing, retrieving as well as disseminating information services in libraries. Oduwole, Oyewumi and Oyesiku (2002) viewed that, one of the major characteristics of the information age, today is the growth of information services of various kinds in archives, libraries, museums and formal educational institutions which accounted for the bulk of what could be classified as information. The growth in technological development in the field of computer networks is boosting the functions and operations of Nigerian libraries. In line with this, Rahman (2002) has observed that, the process of retrieval and dissemination of information services in libraries has witnessed a rapid growth because of the computer networks. Hence, Nigerian libraries can successfully manage the exponential growth of information with the help of this technology. The digital age has brought with it innovations meant to bridge the seemingly wide gap that had existed between traditional and modern methods of information organization and delivery in Nigerian libraries. Today, the advent of computer networks has ushered in a new path to the library and has given a new dimension to the traditional jobs of the library. The pace of technological innovations and the need for different formats in information presentation in the digital age appeared to be some of the major reasons why Nigerian libraries are using computers, computer networks and other associated technologies in the organization and provision of information services. It is on the basis of this that Singh and Sharma (2002), agree that today, the electronic revolution is affecting the traditional role of libraries as institutions that collect and store information and make available to the users. They noted in this digital age that,

the electronic information sources are readily accessible, reliable and highly cost effective, and this is having an edge over print sources. In the digital age, attention is given to ICT in Nigerian libraries being the engine-room of development and single most important technology that would drive the 21st century libraries.

The availability of full Internet access in any Nigerian library will facilitate online access to the world of information. Electronic information services enable library consortium possible. Once the network is in place, cooperating libraries will have access to the catalogues of participating libraries through Online Public Access Catalogues (OPAC). The consortium will ensure that each library has access to the OPACs of libraries, CD-ROM databases, electronic journals, full-text databases reference resources and important documents. The use of computers for example, in the circulation section of the library helps to eliminate some of the repetitive nature of manual work. Since the work in the circulation section of the libraries involve such routine work as charging and discharging of books, writing of overdue notice, reservation of books and compilation of accession lists of new arrivals, recording of fines and keeping statistics of use of the libraries resources. With use of the computer, these jobs are performed faster, neater and with high level of accuracy. The boredom resulting from repetitive of routine work is also eliminated (Aina, 2003).

Using ICT as a platform for effective information delivery: General.
The concept of knowledge society is often used to denote a development in or second generation of information society. Whereas the information society aims to make information available and provide necessary technology, the knowledge society aims to generate knowledge, create culture of sharing and develop applications that operate mainly via the internet (Hargreaves, 2003). The goal of knowledge society is to fill social needs, create wealth and enhance the quality of life in a sustainable manner.

There are numerous opportunities for librarians using the Internet and Web environment in providing information services easily, timely and appropriately to the users.
• Universal Accessibility of Material – Same electronic document will be viewed by multiple users simultaneously, which eliminates the waiting periods for popular documents in the library. Rare and fragile historical documents can be scanned and stored for electronic viewing by numerous users around the world for indefinite periods.
• Patron Initiated Inter-Library Services – In the cyber library links will be provided for searching electronically stored material as in the traditional method by author, title or subject. Once the appropriate material is located, users can view at their terminal. If the desired material is not located during the search, the user will electronically forward a request to the librarian to arrange the document on inter-library loan from another library.
• **Book and Reading Lists** – Reader's advisory services have not disappeared from the list of functions libraries traditionally perform. Web versions of book and reading lists are available for users.
• **Online Catalogs** – The catalogs of many of leading libraries these days are available in Web-based and telnet based formats for platform independent easy browsing.
• **Local Databases** – Creation and provision of access to local information by the librarians has taken new life on the Internet.
• **E-Newsletters** – Communicating the news of the library to its users of both physical and virtual collections takes many forms such as electronic newsletters-bulletins, etc.
• **Virtual Reference Desks** – Earlier, reference librarian was available in person, or on phone. Because of the Web, virtual reference librarian is available via e-mail or through a Web form for providing reference services to the users. Many find that this facility is highly useful as it replaces the rigidity of sticking to timings for person-to-person contact.
• **Virtual Tours** – Virtual tours have been created by the librarian to describe the physical library.
• **Web Forms** – Web forms increasingly allow online provision of services formerly reserved for inside the wall transaction like Inter-library loan form, book and journal requisition form, suggestion form, etc.
• **Cooperative Cataloguing** – Librarians use the Web to assist in cooperative catalog of Web-based resources.
• **Distance Education Support** - provision of access to E-Journals, coordination of Electronic Bulletin Boards, posting guides, and hosting online tutorials are some of the opportunities for librarians in the Web environment.
Using social media as a tool for effective Information delivery
The Internet has brought with it social media technologies that can be well adapted into the library environment to be used as a tool for enhancing library services to better enrich both the users' and librarians' experiences. FIG. I shows the social media components and its possible applications in the library in general terms as well as real cases where such applications had been applied. Social media present sustainable platforms for marketing and outreaches in the library, particularly academic library settings like the University of Ibadan library. This approach enhances information services delivery which is aimed at enriching both the staff and the users of the library in order to support the Teaching Learning and Research (TLR) initiative of the University of Ibadan.

FIG. 1 USING WEB 2.0 APPLICATIONS FOR EFFECTIVE INFORMATION SERVICE DELIVERY IN LIBRARIES: GENERAL

Web 2.0 Tools	Library 2.0 applications	Cases
RSS (really simple syndication)	• Announcing arrival of new books, journal and databases • Promote event organized by library	New York University Library (http://library.nyu.edu/feeds) using feed for providing more general to specific information, like Library instruction Classes, library orientation, database search, database management, Library News: about library hour, new event Liblink: providing tips for better use of library.
Wikis	• Training Tool • Library website • Subject guide • Library suggestion	Ohio University Library Biz Wiki (http://www.library.ohiou.edu/subjects/ bizwiki/index.php/Main_Page) is a collection of business information resources of Ohio state university library. Its contain article, reference book, business website and other research guide. They have also provided service for online chat through Library Services Electronic Resources Wiki (http://library.hud.ac.uk/wiki/Main_Page).
Blogs and blogging	• Support Library instruction • Staff Communication • Subject Resources • Course Materials • Breaking News	Wellesley College Library (http://wellesleylibrary.blogspot.com) Blog provided link to valuable information pertaining to student need. Library also providing information regarding exam schedule, changes in library timing, link to new resources, education CD and video. Western Carolina University, Library News Blog (http://hunterlibrarynews.blogspot.com) Providing latest news about library collection, exhibits, hours, database trail and library happening.
Flickr (photo sharing)	• Event: annual symposium, Library Function, Book Sale • Regular Occurrence: tour, reference transaction, Computer use, classroom scenes. • Library poster	Arizona State University Library (http://www.flickr.com/photos/asulibraries/ sets/72157601621243043/) has two type of collection ASU Libraries events(event organized by ASU libraries)and about ASU Libraries. American Library Association (http://www.flickr.com/photos/ ala_members/ala_members/)
IM Messenger (Chat Reference)	• Virtual reference • Research Assistant	American University Library (http://www.library.american.edu/ask/im.html) using virtual reference service for providing online reference for research questions from student and faculty.
Social Networking Software	•As web portal • For Library Promotion • Extension of Library website • Catalogue, Database Search	Syracuse University Library (http://www.facebook.com/group.php?gid=2380333929) has a profile in facebook. This was designed to connect student with library in L2 way. Library provided link to library catalogue for book, database search, chat reference and changing library schedule.

Source: Malikarjun Dora & Bulu Maharana in International CALIBER-2008

BRIEF HISTORY OF KENNETH DIKE LIBRARY (KDL), UNIVERSITY OF IBADAN.

University of Ibadan is the first University in Nigeria formerly known as a College of the University of London. The University gave birth to the historic library known as the Ibadan University Library which was later renamed as Kenneth Dike Library (KDL) in 1984 after the first indigenous Vice Chancellor of the University, Professor Kenneth Onwuka Dike.

Kenneth Dike Library embarked on the project of automating its operations in order to improve on the quality of information services it was, and still rendering by adopting new technologies in the practice of librarianship. The first automation initiative was the computerized serials catalogue which was produced with the help of the University Computing Centre in 1975. In pursuance of the vision, the Library Computer Application Unit (CAU) was officially commissioned in 1998, which is now known as the Systems Unit. In 1990, Kenneth Dike Library deployed the UNESCO's CDS/ISIS software to create machine readable records through the assistance of the Library of Congress. In April 1993, another library management software was acquired The Information Navigator Library (TINLIB) and installed by the library. As KDL climbs up the ladder of automation, new ideas and initiatives are learnt and this development necessitated the choice of another window-based Library Management Software named ALICE for Windows that was acquired in 2004 to replace TINLIB which was a Dos-Based Library Management System Software, this later became increasingly cumbersome to manage due to lack of flexibility in terms of operational capability. By 2008, the library had to embark on the deployment of another LMS VIRTUA acquired through the assistance of the MacArthur Foundation Grant, using Mortenson Center University of Illinois, Urbana-Champaign, USA as an interface or

go-between KDL and Visionary Technology Library Solution (VTLS) . This initiative encourages library cooperation activities among six(6) Nigerian Universities which forms the basis for consortium whereby resources are shared among these universities. The KDLOPAC (Online Public Access Catalogue) of the library was commissioned on the 16th September 2010. So the journey continues……..

ICT as a platform for effective information delivery in Kenneth Dike Library
There is no doubt that the information environment in KDL is changing as a result of the sustainable platform being set up for effective information services delivery, using ICT as a platform. The University of Ibadan Library (KDL) provides information resources (books, journals, reports, monographs, electronic based materials etc.) in support of its Teaching, Learning and Research, otherwise known as TLR mandate. Pursuant to the actualization of this responsibility, the University maintains a library system with Kenneth Dike Library as the main library, twenty six (26) faculties, institutes and departmental libraries and Latunde Odeku Medical Library located about eight kilometers away. Over the years, the collections of these libraries have grown and are still growing. Some of the initiatives of Kenneth Dike Library, using the platform provided through the adoption of ICT will be highlighted here.

Electronic Resources
In recent time, and as part of the global shift from hardcopy information prints to electronic based ones, the library is embarking on creating the platform for the creative commons or institutional repository of the University. The project entails the digitization and web hosting of Faculty staff and students' publications such as journal articles including technical publications, theses, as well as rare documents of national historical importance that are domiciled in the library. The repository is also planned to reflect a number of items such as memorabilia, artifacts, some official photographs of the University, including its flora and fauna.

The library subscribed to a number of electronic databases consisting of journals, monographs, e-books, videos, reports etc. Some of these electronic databases subscribed to are JSTOR, HINARI, EBSCOhost, OARESciences, LEXIS NEXIS, Jaypee Digital, Proquest, ebrary, INTECH. Science Direct, Emerald Insight, IMF-elibrary etc.

The databases subscribed to are in two categories, namely: Local Area Network based and Internet based. Access to some of these databases are Internet Protocol (IP) address controlled, that is, user must be on the University of Ibadan Network before access can be granted and at the same time do not need access combinations(i.e User ID and Password).. Some are accessed, using access combinations and some are accessible through the Local Area Network of the library that is, user needs to be physically present in the library before accessing the resources while others are on Open Access.

Automation/ Online Public Access Catalogue (OPAC) in KDL
With regards to the automation of the library collections as a basis for the establishment of Online Public Access Catalogue (OPAC), computerization of collections commenced in the 80's and is still ongoing as a result of new innovations coupled with the need to keep pace with what the technology is dictating, year in year out. New software, VIRTUA has been deployed; individuals can access the library catalogue from the comfort of their offices, classrooms and homes as long as there is availability of Internet connectivity. This, in essence has made inter operability of information system possible whereby the resources in the library can be shared with other library users elsewhere in global term. Users all over the world can access the KDLOPAC which is accessible, either through the University website (www.ui.edu.ng/Library) or by navigating directly to the library website (www.library.ui.edu.ng) and click on Catalogues then select OPAC.

Kenneth Dike Library Website
The KDL website is user friendly, interactive and informative. It has several features which have been selectively provided to enhance Teaching, Learning, and Research (TLR) through the provision of 24/7 access to library resources and personnel. Some of these features include; opinion polls, live help desk, social media networks (facebook, blogs, twitter etc.). **Figure II** below depicts a brief summary of what KDL has achieved, using WEB 2.0 as a tool for effective information service delivery through the provision offered by the adoption and implementation of Information and Communications Technology (ICT). The appropriate links are indicated to check it out when the need arises

FIG. II USING WEB 2.0 AS A TOOL FOR EFFECTIVE INFORMATION SERVICE DELIVERY IN KENNETH DIKE LIBRARY: SPECIFIC

Web 2.0 tools	Library 2.0 applications	KDL Cases	Links
RSS	The RSS provides latest news, gives general to specific information of the library.	KDL	(http://library.ui.edu.ng/index.php?option=com_ninjarsssyndicator&feed_id=1&format=raw
Facebook / Twitter	Facebook profile helps students and researcher to connect the library, enables chat reference and for research questions from kdl library lovers and for meeting people of the same interest.	KDL	(http://www.facebook.com/pages/Kenneth-Dike-Library-University-of-Ibadan/221637571179635).
Blogs	A blog (short for weblog) is a personal online journal that is frequently updated and intended for general public consumption	KDL	http://Library.ui.edu.ng
Youtube	Events visibility. Promote events organized by the library	KDL	(http://www.youtube.com/user/kdlui/videos
Podcast	A multimedia digital file made available on the Internet for downloading to a portable media player, computer, etc	KDL	http://library.ui.edu.ng/index.php?option=com_content&view=article&id=198&Itemid=305
Helpdesk	This platform is available to Information Technology (IT) consumers in the library which provides online real time helpdesk information services.	KDL	(http://library.ui.edu.ng/livehelp/livehelp.php?department=1&cslheg=1&serversession=1

Digital Library Platform in KDL

Recently, the technical sub-unit of the systems unit in Kenneth Dike Library (KDL) came up with the idea of setting up a Local Digital Library Platform (LDLP). The idea is that because of the hiccups, occasionally being experienced by the users of the library in respect of Internet connectivity, some copies of what are available on-line can be downloaded and replicated on the LDLP of KDL for it to be conveniently accessed without the Internet connection. The LDLP will be configured to run on KDL Local Area Network (KDLLAN) and networked so that many users can access it at the same time. Some of the eBooks and eJournals which KDL subscribed to will be downloaded and included as part of the contents of LDLP. This initiative, to some extent will enhance KDL performance in terms of information contents packaging and delivery.

Digitization initiatives in Kenneth Dike Library

Digitization is a process of scanning analog sources into computer. This initiative was taken in order to digitize the rare collections in the library, particularly the grey literatures; such as maps and manuscripts, lectures, etc. This is serving three purposes namely preservation, accessibility and visibility and effective delivery of virtual library services. The underlying philosophy of these arrangements is to provide timely, current and accurate information in support of the TLR mandates of the University of Ibadan. The digitized manuscripts and other materials such as: award winning theses, the Nigerian fields (a University of Ibadan based journal which is highly rated in terms of reputation) and other related materials, are accessible through the KDL website, which can also be accessed through the University of Ibadan website. This on-going project is aimed at preserving our valued resources, better information service delivery, preservation, wider visibility and accessibility of KDL cultural heritage. Also, the University Of Ibadan Institutional Repository (UIIR) has commenced which runs parallel with the digitized materials. This initiative is aimed at preserving the intellectual outputs of the University in respect of lecturers' publications. Another purpose this initiative serves is that it enhances the web metric ranking of the University of Ibadan. It is worth noting that DSPACE is being used as the content management system software for the University of Ibadan Institutional Repository (UIIR).

Electronic Classroom facility

The Kenneth Dike Library electronic classroom is an ICT facility that supports teaching of bibliographic information sessions by library staff, hands-on instruction to small groups of students on specific software or assignments, long-terms or short-term computer related activities of any departments or unit of the university and servicing of external requests for related purposes. The electronic classroom is available for university lecturers, postgraduate students' Internet browsing, instructor led undergraduate students' groups, university sponsored workshops and non-university sponsored workshops

Available Resources in the E-Classroom of KDL

- An instructor station + 30 students multimedia, Internet ready workstations
- Network printer,
- Scanners
- Digital projector and screen
- Multi-system television and video recorder
- Fully air-conditioned and ergonomic furniture

Internet Connectivity in KDL

In order to effectively provide consistent access to numerous electronic resources available through KDL to the users/clients, the library presently has two major Internet access sources; the fibre optic connection which provides fast and reliable and dedicated Internet access to the library servers and Wireless Radio Link which provides Internet access to all sections/units of the library through a well structured and segmented Local Area Network. This link also powers a number of Wireless Access Points currently deployed to every part of the library.

KDL Computer Laboratory

The KDL computer laboratory functions as a cybercafé. It is a location where both students and staff have access to the Internet at a subsidized rate. Apart from Internet access, services like printing (black and white/coloured printing), scanning and reference assistance services especially on how to use the Internet, access and download electronic resources that are available through Kenneth Dike Library, University of Ibadan, are also rendered.

Conclusion

The advent of the information age with its attendant innovations in technology is drastically reshaping traditional institutions giving them a platform to integrate the technological benefits with the traditional practices, thereby redefining ways and approaches that were previously cumbersome. As academic institutions, particularly universities move into the information age, the mission and role of the library are being transformed. Information has become more complex and expensive. The basic challenge is proper orientation towards making the traditional library users to become users of Internet-based resources and services. Therefore, effective information delivery platform through the adoption of Information and Communications Technology (ICT) becomes essential in assisting the user to efficiently utilize the information resources resident in the library and elsewhere. This, however, entails the development of Information Technology (IT) related competencies among librarians and end-users in order to be able to cope with the associated technological challenges. Furthermore, the academic library must embrace the provision derivable from WEB 2.0 which is integrating the Internet technology with the use of social media components to enhance library services for the benefits of librarians and users. The aim of effective information delivery system is to make information users capable of locating, retrieving, and using information. This calls for user education in respect of training users to exploit the library resources effectively, provide users with the skills for independent information seeking and encourage them to seek the assistance of library professionals.

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