

The Role of Academic Librarians in ICT Driven Environment in Delta State

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Abstract

This research work examined the Role of Academic Librarians in ICT Driven Environment in Delta State. The research work covers selected higher institutions in Delta State which are: Delta State University, Abraka campus, Oleh campus and Anwai campus, College of Education Warri, College of Education Agbor, College of Health Sciences Morshoga, Oghara Polytechnic, Ozoro Polytechnic and Ogwashi-ukwu Polytechnic. In order to do justice to this research work, the researcher examined various definitions of ICT, librarian, academic library and academic librarian as proposed by renowned and seasoned professionals in the field of librarianship. This research work also examined the improved and advanced roles of librarians in ICT driven environment in rendering library services. This work made use of the descriptive survey research design based on its objectivity, completeness of coverage and its provision of a sound basis for efficiency and accuracy in decision making. Also this research work highlights the various ICT facilities/resources that are used in the library, the various roles of librarians, benefits associated with these new roles played by librarians and the challenges encountered by librarians in dispensing such roles. The research work also analyzed, discussed and drew conclusion on the role of academic librarians in ICT driven environment from which contribution to knowledge were derived.

Introduction

The traditional role of academic librarians has been engulfed with the advent of ICT which have revolutionized all human activities. ICT is a computer-based tool that facilitates the search, identification, selection, collection/purchase, retrieval and dissemination of information to information seekers and as well support the information needs of individuals, groups and organizations (Haag, 2002). He further mentioned some of the ICT gadgets to include; computer (hardware and software), GSM handsets, television, radio, word processing and operating software, etc.

Ayodele (2002) defined ICT as an electronic based technology generally used to retrieve, store, process and package information as well as provide access to knowledge.

According to Onwubiko and Uzoigwe (20004), Aina (2003) and encyclopedia Britannica (1974) a library is a collections of books and/or other materials, organized and maintained for use, in a building set aside for such purpose that is manned by a professional.

Academic libraries in this context, are libraries that are located, established or attached and owned by an academic institution (such as University), that contains a rich and balanced collections and equipment that can support and enhance the teaching and learning process as well as research work carried out by students and staff of the institution (Ajibero, 2004). The librarians manning such academic libraries are known as academic librarians.

The role of academic librarians spurs from the services rendered by librarian(s) in order to meet library users' information needs, using the manual (traditional) method. Such services include: cataloguing, classification, circulation, reservation, reference services etc. (Webology, 2008).

Singh and Kaur (2009) stressed that preservation and creating access to knowledge and information is the main mandate of academic libraries and librarians, and also supporting the mission and objective of their parent organization/institution which is teaching, learning and research work.

The National Policy on Education (2004) gave the primary role of the libraries and librarians as the provision of information services to support the educational, recreational, cultural, economic and technological endeavors of members in their respective communities. It further identified the library as one of the most important aspect of educational support services. Libraries are used as a media for disseminating information and enhancing literate search and as a tool for the development of intellectual compatibilities and promotion of cultural and social integration.

Onowhakpor (2006) further buttressed on the role and importance of library and librarians as a store house of knowledge, indispensable to the success of any functional institution and any institution without the services of a library is incomplete and as such will produce half baked graduates who will be narrow minded and unable to be productive in their community. In order for these information resources to be fully utilized by the user community, efforts are therefore made to acquire, process and make available the information resources to the library user(s), resulting to the different roles played by librarians in the course of making these information resources available to the user(s).

The advent of ICT in the 21st century, for the processing and disseminating of information locally and

globally, have changed the way information is sourced, processed, organized and disseminated by library professionals and library users. This development has changed completely the position and role of academic libraries and librarians. Etim (2004) as cited by Okon (2005). The ICT driven environment, is characterized by a fundamental shift from the local, manual or traditional driven environment to ICT driven environment, from printed publications to digital documents, from ownership to access, from library within the four walls of a building to a digital or virtual or a library beyond the four walls of a building with information resources that can be accessed globally. Singh and Kaur (2009).

Research Questions

1. What are the roles of academic librarians in ICT driven environment?
2. What are the various ICT facilities/resources used by academic librarians in rendering library services?
3. What are the benefits that are associated with the role of academic librarians in ICT driven environment?
4. What are the hindrances that are associated with the role of academic librarians in ICT driven environment?

Objective of the Study

This study on the Role of Academic Librarians in ICT Driven Environment is set to achieve:

1. The benefits associated with the role of academic librarians in ICT driven environment.
2. The various ICT facilities or resources used by academic librarians in rendering library services in ICT driven environment.
3. The role of academic librarians in ICT driven environment.
4. The hindrances militating against the role of academic librarians in ICT driven environment.

Review of Related Literature

The paradigm shift on the role of academic librarians is a phenomenon that has come to stay in the profession of librarianship owing to the impact of ICT driven environment. Ching-chih (1994: 143) opines that the focus of libraries and librarians have been shifted from "access to selectivity". Academic librarians no longer battle with lack of information resources, but an information overload that needs to be mastered.

From the inception of the United States Machine Readable Catalogue (USMARC), records in the late 1960's and the attendant proliferation of online catalogues, librarians have been challenged by modern technological development to become more efficient organizers, abstracters, archivers and in addition to assuming modern roles such as:

1. Search Intermediary
2. Facilitators/Navigators
3. Internet Access Process
4. Information Evaluator/Sifter
5. Collaborative system/Interface Designer
6. End-user Trainer/Educator
7. Researchers
8. Knowledge Professionals/Manager (lu, 2006). Adapted

Search Intermediary: Academic librarians' role as a search intermediary was precipitated by the influx of information resources (that is information explosion) which was brought about by the advent of ICT in the processing, organizing and dissemination of information and or knowledge. Staff and students of academic institutions are confused as to how to get what they want from the World Wide Web (www) because of too much irrelevant information on the net. This reason have made them to fall back to the academic librarians who are experts in searching for information either manually (printed information resources) or on the internet (soft-copies).

A research intermediary is a person or mechanism placed physically between Information Retrieval (IR) systems and actual user with the purpose of transforming the request of information seeker(s) to query suitable for the information system in order to get outcome that suits the information needs of the library clientele due to lack of expertise knowledge on the part of the information seeker(s). Due too much information in circulation and lack of expertise on the part of information seekers, It becomes a cumbersome exercise for the information seeker to get the exact information they sort for from the internet, the academic librarian(s) with their wealth of knowledge in searching for information had to come in to ameliorate the situation.

The academic librarians as a search intermediary can help the library clientele in the following ways:

1. Scanning of photographs and documents
2. Search online for clientele who are novice in this area
3. Downloading software and other information

4. Linking library clientele to search engines not known to them

Facilitator/Navigator : The information resources on the World Wide Web (www) are not structured, arranged or organized. Therefore, sourcing for information by library clientele becomes a difficult task as they are not experts in navigating through the various web sites to get what they want. Academic librarians who are experts and familiar with some of these web sites arising from their role and experience in classification, cataloguing, abstracting, bibliographic compilation etc. can help to facilitate (speed-up) the searching process of library clientele and also to go through different web sites in order to get relevant information.

Internet Access Provider: Access to information resources is paramount, especially in an ICT driven environment where focus is on online information resources/materials than printed resources/materials. Academic librarians have to be at the forefront in creating access to internet resources/materials as information custodians or experts. Rusch-fera (1997) is of the opinion that librarians should help in organizing electronic resources/materials in a logical, easily understandable manner and bringing together documents that are technically and logically related. He further states that the purpose of value added services like subject oriented clearing houses is “ not only to save the researcher’s time and effort in searching for appropriate sources in the vastly unordered, unstructured internet materials, but also to provide him or her with a pre-assessed, semi ordered, annotated list of web sites that can be activated”. Librarians should provide a dial-up services that enable clienteles to dial-in and access the internet, make available one or more several public computers (PC) for library clienteles, make available the newest and most proficient information technology and also act as guidance and experts in fixing hardware and software of computers.

Information Evaluator/Sifter: The traditional role of librarians of identifying, selecting, purchasing, processing, organizing, storing and disseminating of relevant information resources, needs to be extended and taken seriously in the information and communication technology driven environment, where a lot of junks are being domiciled in the internet. The role of academic librarians as evaluators/sifters of information resources whereby they select, scrutinize, sieve and organize only relevant information materials on the internet that will help to meet the information needs of the library clientele.

Saffo (1994) is of the opinion that the future belongs neither to the conduit or content players, but to those who control the filtering, searching and sense making tools to navigate through the expanses of cyberspace.

Academic librarians as evaluators/sifters need to question the qualification of the author of a work, the integrity of the publisher, comparison of a work with other related work(s), originality of a work, expertise involved in scrutinizing the work previously, who are the audience of the author etc.

Collaborator System/Interface Designer: Computer interface is the layout or what we see on the computer screen when one opens a website and how the website communicate back to the user. (Oxford advanced learner’s dictionary, 6th edition). Academic librarians usually have a direct contact with the library clientele. When Information Technologists (IT) Department design a new database, application programs and user interface for library use, librarians must be able to explain precisely to the clientele “ how languages works and how to use layout, typography (style of printing) and design principles” , in order to provide the required functionality.

Academic librarians should work closely and in collaboration with IT professionals in designing computer interface (layout) or technology based information services and also share their expertise knowledge of what users want and need as they have years of experience in helping clienteles in utilizing electronic media and subsequently in using the internet.

End-user Trainer/Educator: Academic librarians should act as library users’ trainers/educators on how to operate different information and communication technology facilities. Arising from information explosion necessitated by advanced technology in generating and disseminating information resources, only few library users are effective and efficient in accessing information sources on the internet. Academic librarians should train/educate users on how to handle hardware and software of computers, how to browse the internet (search strategies), copying and pasting from a website to a micro-soft-word, how to navigate between different websites in order to get accurate information, how to use indexing and abstracting databases, how to use CD-ROM publications and document delivery services etc. Also they should train/educate library clienteles on searching skills and alert clienteles on arrival of new information resources in their subject area and how to make use of them.

Researchers: The role of searching for information sources is a role associated with librarianship right from the inception of library profession. This searching skill has made librarians to possess a unique knowledge of the breath and dept of information sources on various subject areas. Academic librarians should assist library staff and students in searching for information when they are carrying out research work in ICT driven environment. Academic librarians should assist in facilitating access to information (finding the information), analyzing, synthesizing and packaging of information.

Knowledge Professional/Manager: This involves the identification and analysis of available and required knowledge, and the subsequent planning and control of action(s) to develop knowledge assets so as to fill

organizational objectives. Kim (1999).

Arising from the role of academic librarians in ICT driven environment, there are numerous benefits associated with the new role played by librarians when compared to the traditional method of rendering library services in terms of output, accuracy, time, cost, man power (human) and accessibility of information resources. Asamoah-Hassan (2002) observed that ICT now enable individual libraries to search bibliographic and text databases and also to develop search profiles and storage of back-logs of issues of foreign digital journals. Academic librarians can now access information resources that are not within the physical reach of the library and also to link clientele to websites where they can get access to these information sources, even within the comfort of their homes. Limited time and cost are now required in accessing and providing required information resources/materials to the library clientele. Faboyinde (2006). Academic librarians in Nigeria can now access information resources/materials in the Library of Congress Library within a couple of minutes without moving an inch from the four walls of their library building.

Librarianship as a profession is of high value and demand today because ICT have strengthened the tie and collaboration between librarians, government, communities, businessmen and women, researchers, architects, scientist etc. as partners in learning, teaching, nation building and development (Felix, 2006).

The benefits brought about by ICT driven environment are enormous and cannot be over-emphasized, they ranges from increased productive, improved quality tasks/services, ease in resource sharing, low cost of operation, less human input/effort, ease of delivery of library services etc. (Lawal & Ani, 2007).

The ICT driven environment is accompanied by different facilities/gadgets/resources that enables the academic librarians to carry out improved library services that satisfies the information needs of the library clientele.

Iwu (2003), itemized Information and Communication Technology facilities/gadgets/resources into various or different categories, which as follows:

1. Sensing Technologies: These are also known as the input device, which are used to input/enter data into the computer system, which further translate it into computer language that the computer understands. Such device includes; sensors, scanners, keyboards, mouse, electronic pen, touch or digital boards, bar-code sensors or readers, voice recognition system etc.
2. Communication Technologies: these are facilities/resources that helps to transfer the information from one end user to another irrespective of the distance, time and location. Some of such facilities/resources include; facsimile machines (fax), telecommunication system, telephone, electronic mail (e-mail), teleconferencing, electronic bulletin boards etc.
3. Display Technologies: these are also known as the output facilities that are used to communication the outcome of a processed data. Some of these facilities include; computer screen, printer, television etc.
4. Storage Technologies: these helps to facilitate the effective and efficient storage of the outcome of the processed data from the computer. It also helps in the storage of results or answers to queries and outcome of researches made by library clientele. Such facilities include; flash drive, disk, USD card etc.

Despite the mouth watering benefits associated with the use of ICT in academic libraries in Nigeria, there appears to be some bottlenecks or hindrances that seem to restrain librarians from fully utilizing and applying ICT in library operations and services, some of the hindrances include: Dwindling budget/finance, Computer anxiety, Lack of technical know- how of the emerging technologies, Lack of value for librarians because of emerging technologies, etc.

Research method

This research work was carried out to get response from a group of respondents on The Role of Academic Librarians in ICT Driven Environment in University of Benin library, Benin city. This is a situation that had already occurred. A descriptive survey research design was chosen by the researcher because it is a research design that helps to collect, collate, describe and interpret data from respondents without the researcher manipulating, or changing the data to suit his/her own opinion. A descriptive survey research design is based on objectivity, completeness of coverage and its provision of sound basis for efficiency and accuracy in decision making and presentation of findings.

The population for this study comprises of librarians drawn from academic libraries in Delta State.

Questionnaire was used as the only instrument for data collection and it was tagged The Role of Academic Librarians in ICT Driven Environment (RALICTDE). The questionnaire was structured into 5 sections (section A-E).

Data Presentation, Analysis and Discussion

Table 1: Response rate of the respondents.

Institution	Number of questionnaire administered	Number of questionnaire retrieved	Percentage
Delta State University, Abraka	10	10	11.1
Delta State University, Anwai	10	10	11.1
Delta State University, Oleh	10	10	11.1
Ozoro Polytechnic	10	10	11.1
Ogwashi-ukwu Polytechnic	10	10	11.1
Oghara Polytechnic	10	10	11.1
College of Education Warri	10	10	11.1
College of Education Agbor	10	10	11.1
College of Health Sciences Morsogha	10	10	11.1
Total	90	90	100%

Table 1 shows the response rate of the respondents from the questionnaire that was evenly distributed to the respondents under the close supervision of the researcher. The outcome shows 10 respondents (11.1%) each from the questionnaire that was administered to selected higher institutions in Delta State.

Table 2: Gender of the respondents.

Gender	Response rate	Percentage
Male	44	48.9
Female	46	51.1
Total	90	100%

Table 2 represents the gender composition of the respondents, which can be deduced from the table that there are more of female respondents than their male counterpart for this research. The analysis from the response gotten from the respondents indicate that the female respondents are 46 (51.1%), while the male respondents are 44 (48.9%) of the entire population.

Table 3: Status of the respondents.

Status	Responses	Percentage
Chief librarian	Nil	00.00
Librarian	39	43.3
Para professional	51	56.7
Total	90	100%

The status of the respondents was clearly shown in table 3 as 43.3% and 56.7% for librarians and para-professionals respectively. This shows that there are more of para-professionals as the respondents for this research work.

Table 4: Working experience of the respondents.

Working experience	Responses	Percentage
1-10	78	86.7
11-20	12	13.3
21-30	Nil	00.0
Total	90	100%

The working experience of the respondents ranges between 1-10 years, which had 86.7% (78) of the respondents having worked for this duration in the library. While 13.3% (12) respondents falls within the range of 11-20 years as the duration of years they had worked in the library. But none of the respondents had put in a number of years beyond these as indicated in table 4.

Table 5: Role of academic librarians in ICT driven environment.

Role of librarians	Responses	Percentage
Search intermediary	84	93.3
Facilitators/navigators	80	88.3
Internet access provider	88	97.7
Collaborative system/interface designer	40	44.4
End user trainer/educator	50	55.6
Researcher	30	33.3
Knowledge professionals/manager	85	94.4

Academic librarians' role in ICT driven environment are enormous and it cannot be over emphasized. This fact is rooted on the mouth watering benefits accruing from the ICT driven role of academic librarians. These roles included but not limited to the role of academic librarians as a search intermediary with response rate of 93.3%, as a facilitator/navigator with 88.9% as the response rate, as internet access provider having 97.7% response rate, as knowledge professional/manager with the response rate of 94.4% and the role of academic librarians as end user trainer/educator with 55.6% response rate. The response rate of the respondents on the role of academic librarians in ICT driven environment has a very high percent, which shows the respondents' awareness and concordance with the current trend in librarianship. Other role of academic librarians whose response rate ranges between 30% and 44% include the role of academic librarians as a researcher and as a collaborative system/interface designer.

Table 6: Various ICT facilities/resources used by academic librarians in rendering library services.

Facilities/resources	Responses	Percentage
Computer	90	100
Telephone	60	66.7
e-mail	50	55.6
Electronic bulletin board	20	22.2
Facsimile machine	10	11.11
Flash drive	40	44.4
Bar-code reader	85	94.4
Teleconferencing	10	11.11
Printer	80	88.9
Electronic pen	10	11.11
Projector/digital board	25	27.8

The various ICT facilities/resources that are used in academic libraries are clearly shown in table 6, which are used in dispensing library services to users. The high rate of response from the respondents shows that ICT facilities/resources are the pivot of academic library's daily activities. These facilities/resources include the computer, telephone, e-mail, bar-code reader, printer, etc. having response rate of average and above. While ICT facilities/resources such as electronic pen, teleconferencing, flash drive and facsimile machine had a response rate of below average.

Table 7: Benefits associated with the role of academic librarians in ICT driven environment.

Benefits	Responses	Percentage
Increased output	90	100
Wide coverage of services	85	94.4
Time saving	86	95.6
Cost effective	90	100
Conveniences in rendering library services	88	97.7
Accessibility to information resources beyond the library building	90	100
Adequate storage of information resources	90	100
Accuracy of services/ lesser error	90	100

The benefits associated with the use of ICT facilities/resources in rendering library services are mind blowing and cannot be measured or quantified. These benefits that is necessitated by the improved and advanced role of librarians in ICT driven environment as clearly shown in table 7, has helped the library management to save the cost of running the library, the time and energy exerted on daily library routine activities, accessibility to information resources, library coverage area, lesser error in library activities etc.

Table 8: Hindrances associated with the role of academic librarians in ICT driven environment.

Hindrance	Responses	Percentage
Lack of technical know- how of the emerging technologies	90	100
Computer anxiety	50	55.6
Dwindling budget/finance	90	100
Lack of value for librarians because of emerging technologies	85	94.4
Lack of attention for librarians on the part of library clientele	70	77.7

Despite the mind blowing and tantalizing benefits as necessitated by the improved and advanced role of academic librarians in ICT driven environment. The use of ICT facilities/resources in rendering library services is hindered by factors such as lack of technical know-how of emerging technologies (100%), computer anxiety (50%), dwindling budget/finance (100%), lack of value for librarians because of emerging technologies (94.4%) and lack of attention for librarians on the part of library clientele (77.7%). These hindrances are clearly pointed out by the respondents from their responses as given in table 8.

However, these hindrances are surmountable and cannot act as a stumbling block to the improved and advanced role of academic librarians in ICT driven environment.

Conclusion and contribution to knowledge

Conclusively, the presence of information and communication technology in the 21st century, has changed the traditional role played by academic librarians, which include the provision of information services to support the educational, recreational, cultural, economic and technological field of study of the user community through the acquisition, classification, cataloguing, reference services, shelving and shelf reading of printed information materials manually in the library. To a more advanced and improved role such as a search intermediary, researcher, facilitator/navigator, internet access provider, information evaluator/sifter, collaborative system/interface designer, end user trainer/educator and as a knowledge professional/manager. These new roles of academic librarians as brought about an immense benefits such as accuracy in library services, time saving, error free services, fast delivering of services and a robust library services that can be accessed by library users irrespective of distance and time involved.

Contribution to knowledge

The following are the contribution to knowledge from this research work:

1. This work is an eye opener to the diverse roles or improved and advanced role played by academic librarians in ict driven environment.
2. This research work will help to revamp librarianship to its initial status as a pivot of knowledge and the mother of intellect and information from which all professions get their information.
3. It will help to awaken the dull ones among the library profession, so as to brace up to the challenges ahead of them.

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