**Digital Librarians As Information**

**Brokers In Academic Libraries In Nigeria**

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**Abstract**

*This paper review literatures, on the digital librarians as information brokers in academic libraries in Nigeria. Information explosion in the digital age has chocked users with information overload whereby they find it cumbersome to filter the right and authentic information at the click of the mouse. Librarians are charged with the responsibilities of information collection, sorting, filtering and disseminating current and accurate information to their users. To have a valuable information it comes at a cost. Therefore, there must be a price attached to commensurate with the explorative skills, metadata skills, information literacy skills, competence skills among others. There are some indicators that measure the value of information in academic libraries, these include price of the information, information packaging, time span of the information, location/place, etc. The study concluded and recommended that digital librarians should make personal efforts to improve their skills in order to defend their profession and discharge their expected responsibilities and dispel the library from the threat of obsolesce and continue to be relevant and irreplaceable in the business of their profession.*

**Keywords:** Digital Librarians, Information Broker and Academic Library

**Introduction**

Brokerage is an entrepreneurial business activity which people engage in to make a living. It is a business transaction in which practitioners depend largely on commission, computed and paid on agreed percentage by their principal. Brokers do not earn salaries. According **to** Wijewickrama,Rameezdeen, and Chileshe (2021) defined brokerage as the business of a broker who solely receives compensation for the brokerage tasks they undertake. The subject substance of transactions is not owned by brokers; rather, they merely use it to apply their trade-earning commission. A broker is defined by Smith (2024) as an individual or firm that serves as a middleman between an investor and a securities exchange. Brokers are paid in a variety of ways, including fees, commissions, or direct payment from the exchange. Brokers also offer other services like research, investing strategies, and market knowledge to investors. A librarian can be referred to as a broker between information resources and library users, who offers various services such as answering users’ queries, reference services, selective dissemination of information, and current awareness services, among others.

Information technology has created a new channel for information services. The library as an information provider has been grossly transformed by ICT, from its collection of resources to service delivery. The library, as an indispensable entity in an academic environment, must rise to meet the growing information needs of its users. This change in the library can be grouped into two categories: change in library resources, which deals with the information resources housed in the library. Libraries decide if their resources are to be fully digitalized. Secondly, there is a change in service delivery, where libraries provide their services beyond physical transactions through the use of ICT service delivery. The drive of the library is to meet and satisfy the information needs of its users through prompt and effective dissemination of information. Through transforming from its traditional service delivery to a hybrid system of operation and digital service delivery. Librarians in the academic environment should develop technologically competent skills to manage and utilize ICT facilities to discharge their responsibilities.

One of the most crucial responsibilities of the digital librarian is to help library users navigate through the information blockade, which involves information surfing, packing, and disseminating information to library users. Information brokerage aims to identify the needs of the users and determine and fill these needs, wants, and demands by designing and delivering appropriate products and services.

**Nature of the Digital Knowledge Evolution**

The 21st Century as the millennium of information has been seen as the era of explosion of information output and information sources. It is known as the beginning of knowledge age. Knowledge is no longer what is stored in the minds of experts, represented in books and classified in disciplines. Knowledge age librarians need to be able to locate, assess and represent new information quickly. Cherinet (2018) described some of the functions and abilities required by librarians are evolutionary, while others are transformative, but the overarching future position is to turn the knowledge development into community (to create an educated society) by re-socializing and shaping young generations.

Fagbola (2016) stated that academic libraries in Nigeria are gradually adjusting to this advancement and users' changing information-seeking needs through integrating digitize library resources and information retrieval technologies such as expert wireless networks, virtual resources, interactive Web interfaces, virtual reference services, and library Web portals Soyele,, Oyebola, & Ajegbomogun, (2021)*.* buttressed that digital technologies have significantly moved from paper-based information to electronic access information and knowledge for information users. The deployment of a digital library is a propitious tool to the educational system where users can obtain information quickly and efficiently, support the process of teaching and learning, assisting academic community with accessing references, catalogues, and research data (Ilahi, Widiaty, Wahyudinand and Abdullah, 2019)

From the foregoing, it is obvious that libraries and librarians must embrace these technologies to build a community of users through communication, flexibility, creativity, and innovation in promoting library services through online information retrieval (OPAC), automated cataloguing, electronic document delivery, CD-ROM databases, circulation systems, etc., bringing about more advancements in the field of retrieving information. 

**Digital Librarians**

As the traditional custodian of information, the professional librarian in the 21st century, must be versatile technologically. Librarians need to be aware of these diversifications and as such embrace this technological knowhow and intellectual competence to sustain their role in the academic institutions in supporting teaching, learning and research.

Every day, there is a massive influx of information in this digital age. This implies that in order to fulfill the evolving needs of library users, the digital librarian will need to develop competent skills that would project good library services. Cornish (2018) opined that ICT has transformed libraries from paper-based librarianship to digital librarianship, thus providing new opportunities and diversifying access to information. With this, librarians in academic institutions must thrive in a technology-enabled society by building a high level of digital technological skills to satisfy the growing needs of the users.

Diwakar, Achuthan, and Nair (2020) enumerated some skills that librarians should possess in the 21st century such as: communication and collaboration, creativity and innovation, critical thinking and problem solving, media literacy, ICT literacy, flexibility, and adaptability. Furthermore, Parkes, (2013) opined that the digital librarian should have the skills in the management of virtual resources — e-books, databases, websites, blogs, social media outlets, videos and digital archives — requires a diverse skill set that includes negotiating skills, knowledge of copyright, contracts, licenses, rights and permissions, and the appropriate depth of subject-matter expertise required to evaluate publisher and content-provider offerings and platforms. From the fore going, digital librarians are moving with the trend by building their skill capacity to address and handle the ICT applications in providing library routines and services.

**Literature Review**

The academic library is a campus with accumulation of multidisciplinary information resources which must be disseminated. Ahiauzu and Ani (2015) explained that information age is defined by its express flow of information which is made possible through the adoption, application and utilisation of ICT in libraries for management, processing, storage, retrieval, and dissemination of information. It is within these routine services that academic libraries undertake brokerage services. Denchey and Christozov (2012) suggested that to be a professional information broker, a librarian must master these three skills:

i. to be able to search, survey and scan information sources, by navigating all forms of information media;

ii. to acquire, collect and preserve the acquired information and to organise, analyse, summarise and visualise it in a form that will be suitable to serve the user’s need. A special skill is to map available information to the problem in a creative way by combining data from different sources to discover the potentially best solution.

iii. The last category includes presentation skills. Every information acquired should be able to serve different users, since information cannot be monopolized by a single user.

In the context of the business of information, Obi (2021) cited Lewis and Trevitt, there must be a situation as the one represented in this flow chart, this must exist for any price - tag commodity: Obi (2021) analyzed the library services and products as:

Business Intermediaries Products Customers

Library Librarians Services/Information Clientele

Other staff products

All these set the stage for information brokerage in library services. Information can be profitable according to Igbeka (2008) if well addressed. To be able to fix prices and charge fees, periodic or hourly rate should be calculated. The type of services provided should be taken into consideration. Akintola (2021) claims that this will help identify which information services should be free of charge and which should have a more comfortable price.

Edem and Umoren (2012) studied to determine the feeling of library users with regard to charging of fees for library services rendered. Respondents considered payment for some services such as internet services, literature search and current awareness services as desirable in the University of Calabar Library. In the same vein, Ezekwe (2019) collaborated that some services in the library should be monetized, services like; photocopying, interlibrary loan transaction, long enquiries, compilation of reading lists and literature searches, abstracting, document delivery, business/industrial information service and quick enquiries, are brokerage oriented and financially beneficiary to the academic libraries.

**Information Brokerage in Academic Libraries**

The library is an academic institution made up of professionals who collect, organise, store, and disseminate information. The increasing complexity of the information imposes upon libraries a greater demand to processing information and quick retrieval system for the users. Librarians as information brokers are also information mediators. Librarians as information professionals are entitled to assist users in surviving in today's world and facing the challenges of the information era. The major role of an information broker is to serve users by disseminating the essence of information relevant to the user's problems. Often, the information entity created by an information broker is added to the academic environment as secondary information and may serve other users as well (Christozov, & Stefka Toleva-Stoimenova (2014); Christozov, Denchev, Toleva-Stoimenova, & Rasheva-Yordanova, 2008).

Akintola (2021) highlighted some information services that the library discharges; photocopying, internet access, rapid inquiries, abstracting and indexing, among others. According to Johnstone, Dainty, and Wilkinson (2009), librarians are information brokers who are experts in the supply and demand of the aforementioned information products and services. It is true, of course, that librarians are knowledgeable about topics pertaining to contemporary developments in information science and the provision of information services.

Edewor and Omosor (2012) posits that an information broker is an individual who gather information for others as a professional business. Librarians as information brokers provide selective information for users. This is carried out by accessing information databases to selectively provide information on specific subject of interest to a specific person(s). Information broker rely on a variety of information sources (commercial, government and non-government) to help them perform their function. Academic librarians can utilize variety of information sources (print and non-print) to provide information brokerage services. This business requires little or no capital to start. Users will find this service useful especially researchers thus, will be willing to pay for it (Usuka, Ekere, Oviri and Ajibo, 2019).

Thus, academic librarians as information brokers, their responsibilities include:

**(i) Acquisition of library information materials:** Librarians in academic libraries can facilitate this brokage services by purchasing print and non-print library materials for the users' studying, teaching, and research needs. It is obvious that, every academic library must have acquisition or resource development division dedicated to acquisitions or resource development. Libraries could also serve as a broker by functioning as a vendor and other materials’ agent through information sharing to various libraries.

**(ii) Processing of library information materials:** This library activity involves the librarian organising and making available all acquired information resources accessible to library users. Librarians can act as intermediaries by helping other libraries who lack the technical know-how to properly catalogue and classify their collection contents by employing this distribution mechanism. This service might also include author works that are ready for publication to be abstracted and indexed. Moreover, brokers might connect libraries with cataloguing and classification services to those without on a commission basis.

**(iii) Storage of library information materials:** To ensure that all library resources are preserved and maintained for easy accessibility and retrieval, this service provides the best and most appropriate storage facilities. Through the use of ICT tools and internet connectivity, librarians can act as information brokers by locating and providing specialized information to scholars in their respective professions. The library automatically, benefits financially most of the time when people outside of the building retrieve and disseminate information via computers and other reprographic equipment.

**(iv) Retrieval and dissemination of library information materials:** Using and implementing a multifaceted service delivery system is part of this library service delivery. These includes the use of technological facilities such as ICTs, printing and publishing equipment, reprographic equipment, and binding equipment. Librarians can act as broker in these delivery systems, helping users obtain knowledge and other expert services by doing the following:

i. typing manuscripts using the computers;

ii. assisting users in finding and sharing information via the online resources in the library,   
iii. printing manuscripts for users,

iv. printing and publishing client works. Brokerage and transactional issues pertaining to ISSN and ISBN fees, copyright retainership, and royalty commission will be the basis for the transaction,

v. assist users in locating resources to meet their information needs through the library manual card catalogue and/or the Online Public Access Catalogue (OPAC), which frequently uses brokerages to facilitate the retrieval and distribution of information.

**(v) Professional information services:** academic libraries participate in both in-service and out-of-service training programs, just like any other professional bodies. These programs are typically specific in order to fulfill the organisation's professional mandates as well as its community service obligations. Librarians can therefore brokerage services through organising and mobilising:

i. Tailored training courses to close relevant knowledge gaps in academia and other human endeavours

ii. Professional development seminars for library information delivery service providers and other information practitioners

iii. Engaging in outreach information campaigns to raise awareness among prospective users of non-traditional libraries and those planning to use any of the library delivery systems in order to accomplish their set goals. There are other areas of information brokerage and merchandising that libraries can annex such as a purposive library conference center, ICT, printing, and binding facilities.

**Digital Librarians and Effective Information Service Delivery**

The human resource is a vital aspect of any organisation. The success or failure of any organisation depends to a large extent on the human capacity. The Librarians of digital era are changing with the changing environment which is a consequent of ICT. Alabi and Omoike (2020) notes that one of the vital elements of success and dynamism is specialized human resources viz librarians. LaRue (2012) firmly believes that the library's most powerful asset is its professional staff. From the foregoing, the librarian of the 21st century is no longer one that sits behind the reference desk answering mere reference questions but rather an active marketer who sells the library's products and services to his community at every opportunity. He packages current information sources and delivers on point. The 21st Century Librarian is an information warehouse, one with a desperate zeal to impact positively on his environment. He is at home with modem technological infrastructure. According to Ikhemuemhe (2005) cited in Sahabi, Efe and Ebunuwele (2022), if librarians are to continue to make substantial contributions as information disseminators, they will have to understand and exploit ICT infrastructure and emerging technologies in delivering services to their clientele.

In a narrow context, librarians in academic libraries act as brokers while discharging the functions of their libraries to their users in information gathering, processing, storage and dissemination using the underlisted reader services and other delivery functions such as:

**Availability of brokerage in resource acquisition:** According to Dötz, Doyle, Forbes, Brookhart, Studabaker, Davies, and Shevlin (2019), academic libraries are now more concerned with serving as information providers than with being typical library institutions. Academic libraries are employing techniques, methods, and tools to enhance the acquisition and availability of information. For this to be effectively actualized, financial resources are required to adopt new techniques and technologies that improve information distribution and access.

It is more advantageous for academic libraries to subscribe to databases and other online resources (e-books, e-journals, e-dailies, etc.) and to make sure that users may access these resources. Also, resources can be acquired through library consortium. Consortiums can become excellent facilitators in the process of collecting, digitizing, organizing and making accessible these new electronic library resources. A library consortium is a group of libraries that partner to coordinate activities, share resources and combine expertise (Otike, 2023). Library consortium is an avenue where libraries use to immensely access and utilise e-resources to serve their immediate information needs of their users.

**Availability of brokerage on information distribution:** One of the cardinal services of the academic library is to share resources and provide others with up-to-date information. Thus, academic libraries (with such a delivery mechanism) can disseminate scarce information in their holdings through the Online Public Access Catalogues (OPAC). Academic libraries with adulate ICT facilities help to keep abreast of current information and trends that are critical to users. Libraries offer access to any format of information resources and sharing tactics from electronic and digital resources (CD-ROMs, databases, electronic journals, reference materials, institutional repository etc) for information users to discharge their academic responsibilities (Yusuf and Iwu, 2010). And other significant papers are now accessible to cooperating libraries online. Information brokerage is prevalence in academic libraries due to the payment for subscription and access fees to regulated and monitored websites both online and offline information resources, which often involves brokerage-like subscriptions.

**Availability of brokerage on information dissemination:** The integration of the internet, email, social media platforms and CD-ROMs to access, retrieve, and distribute information is becoming more and more indispensable on a daily basis. Academic libraries are utilizing these information distribution technologies to provide relevant and precise information to their eager users. Thus, librarians engage in brokerage activities by subscribing to information databases in order to transmit and disseminate helpful information to various categories of library users. As previously mentioned, without a membership, intending users cannot access coded or controlled website for information not to mention obtaining and sharing such. Copyright restrictions are in place, of course, primarily to enable copyright owners to obtain financial rewards for their published literary and artistic works. In order to publish such creative works and split the profits from them, publishing houses—whether print or electronic—can broker these agreements by signing copyright retainership business agreements with intellectual property owners.

**Availability of brokerage on professional services:** Professional bodies usually undertake professional trainings not only as part of their further and continuing education programmes but also to render professional services to needy clients for financial gains. Librarians take on the role of information consultant who bridge the gap between users and information, both physical and digital. Librarians become proactive guides, leveraging their expertise to curate personalised information for users in other professions

Librarians can extend their services to the immediate environment in which the institution is situated. This is done by providing community members with literacy programs, campaigns, awareness programs, etc. with adequate information resources that would go a long way toward catering for their immediate needs and aspirations. The academic libraries provide services such as computer programs designed to inculcate in the users how to use the systems for their personal and immediate needs. They also provide books that could serve as a yardstick for education and the cultural development of their society. Academic libraries in Nigeria also assist community members to actualize their dreams and aspirations by providing them with information resources that would improve the quality of their lives. These programs could attract the sponsorship of academic institutions, the government, international bodies, and prominent individuals in society.

**Indicators to the Value of Information in Academic Libraries**

Information is an indispensable factor for promoting the development of society. The need to be informed is as indisputable as the ever-increasing importance of information in the economy and in society. The term “Information Society” is one possible description of this development. The content industry plays a crucial role in this information society. The compilation of content is the prerequisite and lifeblood of electronic commerce or, in other words, “content is trump”. This content which is offered on a wide range of media (CD-ROMs, Internet, Web-TV, ...) includes information products ranging from simple www pages and real-time stock market information to multimedia – just to name a few examples (Wang,2014). The production of information products is expensive, while their reproduction is very cheap. The fixed costs of the first copy are very high compared to the costs generated by each additional copy. These reproduction costs and the distribution costs via the Internet are virtually zero. Wang further highlighted characteristics of digital goods (information) as:

- Indestructibility: The lifespan of the media that digital goods are stored on does not affect them.   
- Transmutability: Digital products can easily be altered or combined to form new products.  
- Reproducibility: Generating flawless duplicates of digital products is quite simple. It is relatively inexpensive to accomplish this.

Nonetheless, the following are a few metrics used to assess the worth of the information housed in academic library:

**Price:** This is an important factor in marketing which the customer considers before purchasing a particular product. It also refers to the dominant element that determines the revenue or profit or market share for the organisation. Price for the product is usually set when the organisation introduces or acquires a product. Price could be social or monetary. Social price refers to the additional effort that the customer must make in order to obtain access to a product while monetary price implies the payment of certain sum by the customer. That means, price is not always considered in monetary terms, but it is also associated with time, effort and psyche. Price is one of the most difficult aspects of marketing exercise (Dhiman and Sharma, 2009).

According to Christozov and Toleva-Stoimenova (2014), there is a price associated with getting access to the most valuable sources. Even so, the most valuable information is not given out for free. However, the price paid for it is not the only component of the cost. The price covers the cost of finding, locating, accessing, evaluating, and processing data. To be able to fix prices and charge fees, periodic or hourly rate should be calculated. The type of services provided should be taken into consideration. Services such as literature – information editing, online database search, searching, abstracting, editing or reference should be priced hourly, while consultancy and user-education would be lump-sum price-fixing for longer periods as monthly (Obi, 2021).

**Information packaging:** In this digital age, information packing is currently an essential product sheafed in different formats. As a result, the library now has more chances to offer value-added services to academic settings. In the twenty-first century, people have access to electronic information sources at home that allow several users to use a content at once. By digitizing projects, Theses, and Dissertations, the librarian can take advantage of this benefit and preserve the research productivity of the institution. These projects can be hosted on the university website through the creation of an institutional repository in partnership with the ICT center. Although the library will always be the only entity responsible for their access and recovery, their visibility on the internet is ensured. The added advantage of such initiative could be made manifest in the global webometric ranking of the institutions.

**Time span of the information:** Librarians are like search engines, who utilizes their in-depth knowledge and professional skills to derive meaningful information that will meet the information needs of their users especially in this 21st century where there is information explosion. Sometimes, librarians carry out extensive search by going through archival materials and other relevant platforms to satisfy the information quest of the users. The information services that are searched for will determine the value or price at which it will be offered. It is undeniable that searching through the creative past for knowledge requires a significant amount of work, time, and energy; hence, the information sought under this pretense will have a commensurate price value attachment.

Negotiating the price of information services shouldn't be trivialized for a professional in this field; instead, it should be done in a way that persuades the client that the costs are justified. A piece of information returned from such depth of effort will cost a fee commensurate with the inventiveness, knowledge, and search technique that a librarian in the 21st century uses to suit users information needs by excavating the archive. In doing this, price should be steady or whatsoever was established from the outset should stand.

**Location/place:** This refers to the channel used to distribute a product or service to a client. It is typically connected to the "when," "where," and "how" that a specific service or product is made available to users or clients. Dhiman and Sharma (2009) explained when as the duration of time the service or product was executed, where speaks of the location the transaction was carried out and how indicates the medium through which the service or product is delivered. Librarians as information brokers can no longer sit in the confers of their offices to disseminate information. The when, where and how has gone beyond physical delivery of information, the digital librarian must annex all ICT tools and platforms in delivering information at the doorstep of its users. ICT platforms such as library website, library Facebook page, users’ email, OPAC, social media etc have enhanced and broadened the scope and time in which information can be delivered to library users. Ashikuzzaman (2023) stated that through chat, email, or video conferencing, librarians provide real-time assistance to users, enhancing accessibility and users’ support. Social media has become adynamic channel for communication, outreach, and community building. Librarians leverage social media platforms to engage with the community, foster connections and share information about library resources.

**Promotion:** This area of marketing involves the efforts of a professional in the field to generate and intensify demand. Promotion directs the products in the direction of the consumer, creates demand, and boosts revenue. It serves as a way to educate users and consumers about your capabilities. push and pull promotions. Advertising 'pulls' by bringing the product or service to the attention of potential customers, who then, in the hope of getting it, or at the very least, more information about it. Patil and Pradhan (2014) stated that the library system might not be known to or understood by users. Therefore, it is crucial that new students register with the library each year and that they receive awareness programs at the start of the school year. The most effective method for user promotion is a word-of-mouth campaign. The primary promotion tool is library instructions in the form of workshop, seminars, lectures etc. Library can carry this out through displaying newly acquired materials at the circulation area of the library and vibrant public relation practice. Digitally, bibliographic details of information resources can be an add-in on the institutional website and library OPAC to create awareness of the information resources in the library.

**Advocacy:** In today's environment, users are no longer using the library to obtain information; rather, the library now goes out to provide customers with information services. The librarian must search for chances to engage and communicate with his diverse user base in order to do this. In order to establish a connection with teachers, administrators, and students, he uses his interpersonal skills tactics. The librarian should intimate lecturers and students on recent publications and their conditions of accessibility. Also, Selective Dissemination of Information (SDI) can be carried out for lecturers across the institution to support and to ease the academic tasks. By doing this, it serves as a powerful ally for the library, a crucial component of the university.

**Conclusion**

The time of single experts, capable of solving problems in a professional manner has gone, especially for libraries and librarians who are information professional. As information providers in the 21st century, librarians are expected to utilise information, create and explore knowledge in other to be relevant in the academic system. With a well-versed skill in ICT, librarians will be able annex information resources globally and organise and manage the information retrieved to build digital libraries and provide quality e-information services to the academic institutions. Also, with this digital revolution, the face of librarianship profession has changed globally, from been information gatekeepers to information brokers. As information brokers, librarians have ample opportunities to reach out to their users at any location and time through various ICT channels to disseminate information such as electronic mail, social media platforms: Whatsapp, Telegram, Instagram, LinkedIn among others. Also, as information broker in an academic environment librarians can give specialized services by creating a blog on the institutional website to give update information to the institutional community.

**Recommendations**

In the digital age, information has become cumbersome for society to digest, especially in the academic environment. The onus therefore lies on libraries and librarians to serve as information brokers to filter, package, and disseminate adequate information for the users. It is therefore recommended that:

1. Digital librarians should embrace and integrate ICT fully as part of library facilities and means of information-sharing services to dispel misconceptions about libraries being outdated and irrelevant.

2. Librarians should adopt digital transformational change and improve their skills and knowledge about new technologies that will project a smart library information service in the digital environment.

3, Digital librarians should also focus on understanding the information needs and research interests of their users and design marketing strategies accordingly. By highlighting their unique information resources and creating internal databases and repositories in the library for users, apart from other information sources.

4. Librarians should be adequately equipped with digital technological facilities and a conducive environment that will stimulate information-sharing services in the academic environment.

5. There are great opportunities, bright career prospects, and pecuniary benefits in information broking services as long as librarians adopt and innovate their professionals’ skills with technological competencies.

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