

**INFLUENCE OF DIGITAL LIBRARIANSHIP ON LIBRARY SERVICES IN IMO  
STATE UNIVERSITY LAW LIBRARY, OWERRI,**

By

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**Abstract**

The aim of this paper is to examine role of digital librarians in law library of Imo State University, Owerri, South-East, Nigeria. in the 21<sup>st</sup> century. The study adopts the survey research design and used correlation analysis for data analyses and interpretation. Result shows that the correlation coefficients between information navigation implementation, digital knowledge mining, and electronic information services and the dependent variable, law libraries is statistically significant. The study recommends that there should be regular training and workshops for practicing librarians to enhance their acquisition of requisite skills and knowledge required of a digital librarian. The study concludes that both law libraries and librarians play critical role in making their users information literate, thus, bridge the digital divide that exists at local, regional or national levels.

**Keywords:** Library, Librarian, Digital, Role, technology

**Introduction**

In an era of digital information, electronic technology and tremendous growth of electronic products, digital libraries offer a huge range of multimedia information, speeches, images and photos to sounds, text and beyond. The growth of electronic products and other digital sources of information are exploding and infrastructures for accessing material in modern libraries are improving almost on daily basis (Sreenivasulu, 2000). In time past, libraries were seen as stores where books both used and unused were kept to prevent them from being stolen or damaged (Momoh 2018).

However, Adniran in Momoh & Folorunso, (2019) observed that the introduction of ICT which brought about the introduction of new formats of information has given the concept of library a new definition. As such her study defined a library as “a place where information resources are accessed and information services are rendered by professionals who specialize in identifying collecting, organizing, processing information sources as well as interpreting information needs”. More so, Momoh & Folorunso, (2019) sees a library as places for knowledge creation and sharing.

In the traditional setting, the library including law library is defined by dictionary.com in Rao & Babu (2001) “as a place set apart to contain books, periodicals, and other materials for reading, viewing, listening, study, or reference, as a room, setoff rooms, or building where books may be read or borrowed”. This kind of law library houses its material in a location(s) and wait for information seeker(s) to come and use (at the premises) or borrow for a certain period. The tasks of the librarian in this era are to physically engage in collection development, processing, presenting, preserving and weeding the library materials. By acting as a guide to the physical location without much personal affiliations. Similarly, in a more specialized library services, librarians also offer other specialized services to individuals or group of clients which include; indexing, abstracting, translation, literature search, SDI, CAS, and bibliographic listing among others (Rao & Babu, 2001).

A digital librarian is a type of specialist information professional who manages and organizes the digital library, combines the functionality for information, elicitation, planning,

data mining, knowledge mining, digital reference services, electronic information services, representation of information, extraction, and distribution of information, co-ordination, searching notably CD-ROMs, online, internet-based WWW, multimedia access and retrieval. However, the ultimate goal of digital librarian is to facilitate access to information just-in-time to the critical wants to end users and additionally to facilitate electronic publishing (Sreenivasulu, 2000). It is in view of the above that this paper was designed to examine role of digital librarians in law libraries in the 21<sup>st</sup> century.

### **Statement of the Problem**

Law library houses its material in a location(s) and wait for information seeker(s) to come and use (at the premises) or borrow physical materials for a certain period. The tasks of the librarian in this era is to physically engage in collection development, processing, presenting, preserving and weeding the library materials. The 21<sup>st</sup> Century began with remarkable change that led to explosion to a new level of computer and internet library usage. The arrival of this era gave information generation and transmission, new, easier and more available medium that requires new skills and application for management which has a significant impact on library services. Thus, the challenge before this study is therefore to examine the role effect of digital librarians on law library in Imo State University Owerri, South-East, Nigeria.

### **Research Questions**

1. What is the influence of information navigation implementation on law library services in Imo State University Owerri, South-East, Nigeria?

2. What is the effect of digital knowledge mining on law library services in Imo State University Owerri, South-East, Nigeria?
3. To what extent does electronic information services affect law library services in Imo State University Owerri, South-East, Nigeria?

### **Hypotheses**

1. Information navigation implementation has no significant influence on law library services in Imo State University Owerri, South-East, Nigeria.
2. Digital knowledge mining has no significant effect on law library services in Imo State University Owerri, South-East, Nigeria.
3. Electronic information services have no significant effect on law library services in Imo State University Owerri, South-East, Nigeria.

### **Review of Related Literature**

#### **Conceptual Review**

Law library sector is itself quite diverse with law libraries found in courts and tribunals, law firms, universities and law societies. There are also criminology and police libraries, and some government departments and companies have legal collections for their in-house counsel. Although their user groups and needs may differ, the above libraries do have one underlining similarity as a result of their collections. Law library collections comprise of primary materials

such as legislation, case law, patents, treaties, and secondary materials such as text books, loose-leaf material, journals, legal dictionaries, directories and encyclopedias. (Alison, 2007).

Digital libraries according to Yerkey & Jorgensin, (1996) are electronic libraries in which large numbers of geographically distributed users can access the contents of large and diverse repositories of electronic objects-networked text, images, maps, sounds, videos, catalogues of merchandise, scientific, business and government data sets-they also include hypertext, hypermedia and multimedia compositions digital library is understood to have the information predominantly in an electronic or digital medium. The digital information collection may include digital books, digital scanned images, graphics, textual and numeric data, digitalized firms, audio-video clips, etc. A digital library is expected to provide access to the digital information collections (Momoh & Folorunso, 2019).

Gusau (2017) considered digital library to be any of the followings; as a computerized networked library system; computer information storage devices on which information resides; machine-readable data files; components of the emerging National Information Infrastructure; and, various online databases and CD-ROM information products. On the other hand, digital librarians play a distinctive and dynamic role, enable managing very large amounts of data, preserve very unique collections, facilitate dealing with data from different sources, enhance distributed learning environments and provide faster access to information (Gusau, 2017). Stephens (2017) is of the view that library and Information services (LIS) has become a technology-driven field. Information technology is impacting every aspect of the economy;

which libraries are no exception. Alemika (2004) maintain that technology in digital libraries refers to a method or device for collecting, organizing, storing, analyzing, retrieving and communicating knowledge.

Bowker in Leiter (2013) posit that is worth taking a moment to describe what librarians do that transcends working with books. According to Bowker, the most important aspect of being a law librarian is a knowledge of legal bibliography. Law librarians however, should possess an expansive knowledge of all the sources of the law critical for building a useful collection and for assisting researchers in finding the appropriate materials needed for their research.

## **Theoretical Review**

### **Sociotechnical Systems Theory**

Sociotechnical Systems (STS) in organizational development is an approach to complex organizational work design that recognizes the interaction between people and technology in workplaces. Socio (of people and society) and technical (of machines and technology) is combined to give Sociotechnical systems theory. The term sociotechnical systems were coined by Eric Trist, Ken Bamforth and Fred Emery, in the World War II era, based on their work with workers in English coal mines at the Tavistock Institute in London (Trist & Bamforth, 1951).

Similarly, Sociotechnical systems pertain to theory regarding the social aspects of people and society and technical aspects of organizational structure and processes. Here, technical does not necessarily imply material technology. The focus is on procedures and related knowledge,

i.e. it refers to the ancient Greek term *techné*. "Technical" is a term used to refer to structure and a broader sense of technicalities. Sociotechnical refers to the interrelatedness of social and technical aspects of an organization or the society as a whole (Susan, 2013).

Sociotechnical theory has at its core the idea that the design and performance of any organizational system can only be understood and improved if both social and technical aspects are brought together and treated as interdependent parts of a complex system. The goal of this approach is to optimize organizational or technological design by considering the ways in which people interact with technology in a variety of environments. The theory states that organizations consist of interacting sub-systems. However, within any organization, are people with capabilities who work towards goals, follow processes, use technology, operate within a physical infrastructure, and share certain cultural assumptions and norms. Consequently, failing to consider both social and technology aspects, hinders the ability to effectuate changes within the organization. Understanding and improvement requires the input of all key stakeholders throughout the organization.

The key elements of the STS approach include combining the human elements and the technical systems together to enable new possibilities for work and pave the way for technological change (Trist, 1981). The involvement of human elements in negotiations may cause a larger workload initially, but it is crucial that requirements can be determined and accommodated for prior to implementation as it is central to the systems success (Mumford, 2006). Due to its mutual causality, the STS approach has become widely linked with autonomy,

completeness and job satisfaction as both systems can work together to achieving a goal. Mumford in Mumford, (2006) defines the socio-technical approach to recognize technology and people to ensure work systems are highly efficient and contain better characteristics which leads to higher job satisfaction for employees, resulting in a sense of fulfilment to improving quality of work and exceeding expectations.

### Methodology

The study employed the survey research design in examining the role effect of digital librarians on law libraries in Imo State University Owerri, South-East, Nigeria. The instruments of questionnaire, observations and interviews were used for the law librarians, law students and other library users in the study institution. The study used the Taro Yamane formula to determine a sample size of 498 samples comprised of law librarians, law students, lecturers and other library users. Correlation analysis was used to the hypotheses.

The formula is as follows:  $n = N/1+N(e)^2$

### Research Question 1:

What is the influence of information navigation implementation on law library services in Imo State University Owerri, South-East, Nigeria?

**Table 1: Respondents responses on the influence of information navigation implementation on law library services**

Q/N	Item	SA	A	UN	D	SD	N	Mean	Std. Dev.
1	Information navigation	168	148	21	24	42	403	3.92	0.721



	<b>implementation</b>								
<b>2</b>	<b>Law library services</b>	187	133	24	23	36	403	4.02	0.952

Field Survey (2022)

The table 1 above presents data from responses from respondents under study. The result also disclosed a strong agreement by the respondents on their opinion on the relationship between information navigation implementation and law library services. It accounted for a grand mean of 3.975, and the result further show that the respondents agreed to the facts that: information navigation implementation on law library services in Imo State University Owerri has helped in improving law library services with an  $\pi \pm S.D$  of  $3.93 \pm 0.721$ ; digital librarians in order to embrace change often plan, implement, and support digital services with an  $\pi \pm S.D$  of  $4.02 \pm 0.952$ .

**Hypothesis 1:** Information navigation implementation has no significant influence on law library services in Imo State University Owerri, South-East, Nigeria.

**Table 2: Correlation analysis between information navigation implementation and law library services**

Item	Mean	Standard Deviation	Correlation Coefficient	P-Value
<b>Information navigation implementation</b>	3.93	0.721	0.912	0.001
<b>law library services</b>	4.02	0.952		

SPSS Correlation Analysis Output (2022).

The result on table 2 presents the correlation analysis between information navigation implementation and law library services. The result shows a p-value of 0.001 and a correlation coefficient of 0.912. The result shows a p-value less than 0.05 being the level of significance; therefore, rejecting the null hypothesis and accepting the alternative hypothesis. This means that

the correlation coefficient between information navigation implementation and law library services is significant. Therefore, there is a positive significant relationship between information navigation implementation and law library services in Imo State University Owerri.

### Research Question 2:

What is the effect of digital knowledge mining on law library services in Imo State University Owerri, South-East, Nigeria?

**Table 3: Respondents' responses on the effect of digital knowledge mining on law library services**

Q/No.	Item	SA	A	UN	D	SD	N	Mean	Std. Dev.
3	Digital knowledge mining	188	154	17	26	18	403	4.16	0.736
4	Law library services	176	143	44	11	29	403	4.06	0.811

Field Survey (2022)

The table 3 above presents data from responses of respondents on the relationship between digital knowledge mining and law library services. The results accounted for a grand mean of 4.11 which implies that majority of the respondents affirmed to the statement. There is a high level agreement by the respondents on the opinion that law librarians plan, implement, and support digital services as the result accounted for a mean of 4.16 and a standard deviation of 0.736. The result also shows that the majority of the respondents agreed to the item statement that: digital knowledge mining has helped in enhancing law library services in Imo State University Owerri with an  $\pi \pm S.D$  of  $4.06 \pm 0.811$ .

**Hypothesis 2:** Digital knowledge mining has no significant effect on law library services in Imo State University Owerri, South-East, Nigeria.

**Table 4: Correlation analysis between Digital knowledge mining and law library services**

Item	Mean	Standard Deviation	Correlation Coefficient	P-Value
Digital knowledge mining	4.05	0.773	0.947	0.001
law library services	4.16	0.895		

SPSS Correlation Analysis Output (2022).

The result on table 4 presents the correlation analysis between digital knowledge mining and law library services. The result shows a p-value of 0.001 and correlation coefficient of 0.947. The result further shows a p-value less  $\leq 0.05$  level of significance; therefore rejecting the null hypothesis and accepting the alternative which states that digital knowledge mining has a positive significant effect on law library services in Imo State University Owerri.

### Research Question 3:

To what extent does electronic information services affect law library services in Imo State University Owerri, South-East, Nigeria?

**Table 5: Respondent's responses on the effect of electronic information services on law library services**

Q/No	Item	SA	A	UN	D	SD	N	Mean	Std. Dev.
5	Electronic information services	167	156	31	32	17	403	4.05	0.773
6	Law library services	186	153	26	17	21	403	4.16	0.895

Field Survey (2022)

Table 5 presents data from responses by the respondents under study. The result shows a good agreement by the respondents on their opinion on the relationship between electronic information

services and law library services. It accounted for a grand mean of 4.11. The results further show that the respondents agreed to the fact that: electronic information services helped to boost library services in Imo State University Owerri with an  $\pi \pm S.D$  of  $4.05 \pm 0.773$ ; electronic information services have helped to increase and sustain digital library services with an  $\pi \pm S.D$  of  $4.16 \pm 0.895$ .

**Hypothesis 3:** Electronic information services have no significant effect on law library services Imo State University Owerri, South-East, Nigeria.

**Table 6: Correlation analysis between Electronic information services and law library services**

Item	Mean	Standard Deviation	Correlation Coefficient	P-Value
Electronic information services	4.09	0.971	0.983	0.001
law library services	4.24	0.874		

SPSS Correlation Analysis Output (2022).

The result on table 6 presents the correlation between electronic information services and law library services. The result shows a p-value of 0.001 and a correlation coefficient of 0.983. The result also shows a p-value < 0.05 level of significance; thereby rejecting the null hypothesis and accepting the alternative. Therefore, the correlation coefficient between electronic information services and law library services is statistically significant. This means a positive and a strong relationship existing between electronic information services and law library services.

## Discussion of Findings

The result of hypothesis one shows a p-value of 0.001 less than 0.05 being the level of significance and a correlation coefficient of 0.912, which indicates a positive significant relationship between information navigation implementation and law library services in Imo State University Owerri, South-East, Nigeria. From the test of hypothesis two, result shows that digital knowledge mining has a positive significant effect on law library services in Imo State University Owerri, South-East, Nigeria with a p-value of 0.001 and correlation coefficient of 0.947. Finally, result from hypothesis three tested shows that the correlation coefficient between electronic information services and law library services is statistically significant with a p-value of 0.001 and a correlation coefficient of 0.983.

### **Recommendations**

Based on the discussion above, it is therefore recommended that:

1. Information and communication technologies (ICTs) should be integrated in library information services (LIS) curriculum so that upcoming librarians will get used to technology issues and digital library services to enhance information navigation.
2. There should be regular training and workshops for practicing librarians to enhance their acquisition of requisite skills and knowledge.
3. In building the next generation of digital libraries, multimedia and artificial intelligence should be employed to enhance several important roles.

### **Conclusion**

Law libraries are collected, built and organized with a purpose, to facilitate the learning and practice of law. Libraries and librarians play a critical role both in making their users information literate and bridge the digital divide that exists at local, regional or national levels. Therefore, libraries and librarians need to adapt and design their various programs and services to meet the needs of users. Since the unique selling point of librarians is the ability to provide accurate, authentic, up to date and timely information to users in different formats, librarians must endeavor to package their programs to meet the needs and demands of their various users.

Digital librarians who acquired the requisite skills and knowledge can play a meaningful and leading role in the networked information society of the millennium by adding values and making digital library, digital information center or a librarian of the electronic library, which may be a division/section of a traditional library. The three independent variables; information navigation implementation, digital knowledge mining, and electronic information services, are all positively significant to law library services and have enhanced digital library services in Imo State University Owerri, South-East, Nigeria.

### **References**

- Alemika, E. I. (2004). Computer, Information Technology and Law Librarianship. A Paper Presented at the National Workshop on Application of Information Technology Devices in Law Library Management. Court of Appeal, Nigeria.
- Alison, O. (2007). Libraries in the Twenty-First Century. Special Libraries and Information Services. Available at: <https://www.sciencedirect.com/topics/social-sciences/law-libraries>.

- Chigwada, J. P. (2020). Librarian Skill Sets in the 21<sup>st</sup> Century: The Changing Role of Librarians in the Digital Era. Bindura University of Science Education Press. Doi:10.4018-1-7998-1116-9.ch003.
- Cooper, R. & Foster, M. (1971). Sociotechnical systems. *American Psychologist*. 26 (5): 467–474. doi:10.1037/h0031539 (<https://doi.org/10.1037%2Fh0031539>).
- Germain.C.M (2011). Legal Information Management in Global Age: Revolution and Tradition”  
mhtml:file://document and settings information age. Retrieved on 5/5/2017.
- Gasau, I.B. (2017). Law Library in the 21<sup>st</sup> Century: The Need for Reform. A Paper Presented at the Biennial National Workshop for Judicial Librarians, National Judicial Institute, Abuja, 2017.
- Kuny, T. & Cleveland, G. (1998) ‘‘The Digital Library: Myths and Challenges’’, *IFLA Journal*, 24 (2), 107-113 [www.dictionay.com](http://www.dictionay.com)
- Leiter, R. A. (2013). Law Librarians’ Roles in Modern Law Libraries. Academic Law Library Director Perspectives, Part III: Developing Issues.
- Momoh, E. O. (2018). International Technology and the Future of the Librarianship. *Library Philosophy and Practice* (e-journal). Retrieved from;  
<http://digitalcommons.unl.edu/libphiprac/2079>
- Momoh, E. O. & Folorunso, A. L. (2019). The Evolving Roles of Libraries and Librarians in the 21<sup>st</sup> *Philosophy and practice (e-journal)*.

- Mumford, E. (2006). Researching people problems: some advice to a student. *Information Systems Journal*. 16 (4): 383–389. doi:10.1111/j.1365-2575.2006.00223.x  
(<https://doi.org/10.1111/1%2Fj.1365-2575.2006.00223.x>). S2CID 205306552  
(<https://api.semanticscholar.org/CorpusID:205306552>).
- Ptak-Danchak, A. (2012). 21<sup>st</sup> Century Librarians for 21<sup>st</sup> Century Libraries. Proceedings of the IATUL Conferences, Paper.1 Available at: <https://docs.lib.purdue.edu/iatul/2012/papers/1>
- Rao, K. N. & Babu, H. N. (2001). Role of Librarian in the Internet and World Wide Web Environment. *Information Sciences*, 4 (1).
- Sreenivasulu, .V. (2000). *The Role of a Digital Librarian in the Management of Digital Information System (DIS)*. MCB University Press. ISSN.0264-0473. 18(1), 12-20.
- Stephens, M. (2017). Adopt or Adapt? Office Hours. *Library Journal* (January 4)
- Stranks, J. (2007). Human Factors and Behavioural Safety (<https://books.google.com/books?id=V1WhNFgb5nAC&dq=society+itself,+and+most+of+its+substructures,+are+complex+sociotechnical+system&pg=PA100>). Routledge. ISBN 978-1-136-39751-6.
- Susan, L. (2013). *Socioanalytic Methods: Discovering the Hidden in Organizations and Social Systems*. ISBN 978-1780491325.
- Trist, E. L. & Bamforth, K. W. (1951). Some Social and Psychological Consequences of the Longwall Method of Coal-Getting: An Examination of the Psychological Situation and Defences of a Work Group in Relation to the Social Structure and Technological Content of



the Work System". *Human Relations*. 4 (1): 3–38. doi:10.1177/001872675100400101  
(<https://doi.org/10.1177/001872675100400101>). S2CID 145434302  
(<https://api.semanticscholar.org/CorpusID:145434302>).

Vijayakumar.A. & Vijayan.S.S (2011). Application of Information Technologies in libraries: An Overview. *International Journal of Digital Library Studies*, 1, 2250-1142.

William.B.K & Saffady.S. (1995). Digital Library Concepts and Technologies for the Management of Collections: An Analysis of Methods and Costs'', *Library Technology Reports*, 31, 221.

Yerkey.A.N & Jorgensin.C. (1996). A Course in Digital Libraries. *DESIDOC Bulletin of Information Technology*, 16(1), 31-39.

Zhou, Q. (2005). The Development of Digital Libraries in the Shaping of Libraries. The Electronic Library. 23(4), 433-441. Available at <http://www.webpages.uidaho.edu/~mbolin/igun.htm>