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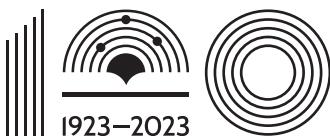
**KUJAWY
POMORZE**

**Urząd Marszałkowski
Województwa
Kujawsko-Pomorskiego**
w Toruniu

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1923—2023

Książnica Kopernikańska w Toruniu

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MIKOŁAJA KOPERNIKA
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A word from Editorial Team

The next issue of the "Folia Toruniensia" Annual is being handed over to the readers in a special period. In January 2023, our periodical was included in the prestigious, global database "Scopus". This has led to a radical increase in the availability of content contained in the Toruń magazine, which should be understood first and foremost as an expansion of the group of international readers. Thus, the authors publishing in "Folia Toruniensia" have significantly increased the range of impact of their articles, communications, reviews and reports, which is almost synonymous with the internationalisation of their texts.

Enjoying such a distinction, we would like to emphasise that it was the fruit of the efforts of the editorial team to achieve the highest possible substantive level of texts published in the periodical. This, in turn, was closely related to cooperation with a group of excellent reviewers, whose opinions allowed for the selection of the submitted texts. The editorial team strove to a no lesser extent to make "Folia Toruniensia" an excellent international magazine in which English-language texts are published by authors from all over the world. All this, along with,amongst others, regularity of subsequent issues and attention to their editorial value, gained recognition in the eyes of specialists from "Scopus". In their justification, they emphasised, amongst others, the high coefficient of text selection and the opening of the editorial team to researchers from the "south of the globe", which provided our journal with an almost cosmopolitan character.

Appreciating the distinction from "Scopus", the editors of "Folia Toruniensia", would like to thank all the Authors, Reviewers, members of the Editorial Board and Associates for supporting us in striving for the highest scientific and editorial level of our annual. In view of the breakthrough of our inclusion in the "Scopus" database, we decided to devote the pages of the current issue of "Folia Toruniensia" mainly to foreign authors, especially the African ones. This is in its premise a proof of interest in the views of researchers not only from other countries but also from other cultural circles. In all cases, the texts were published in English, which is a tribute to the idea of internationalisation of the content published in the Toruń periodical.

Sharing the joy with all friends and supporters of our magazine, we hope that the above concept of its latest issue will gain the interest and recognition of the readers.

"Folia Toruniensia" Editorial Team

Słowo od redakcji

Oddanie do rąk Czytelników kolejnego numeru Rocznika „Folia Toruniensia" następuje w szczególnym okresie. Oto bowiem w styczniu 2023 roku nasz periodyk został włączony do prestiżowej, globalnej bazy „Scopus". Dzięki temu nastąpiło radykalne zwiększenie dostępności treści zawartych w toruńskim czasopiśmie, co w pierwszej kolejności należy rozumieć jako poszerzenie grona międzynarodowych czytelników. Tym samym autorzy publikujący na łamach „Folia Toruniensia" zdecydowanie zwiększyli zasięg oddziaływania swoich artykułów, komunikatów, recenzji tudzież sprawozdań, co jest wręcz synonimiczne z umiędzynarodowieniem ich tekstów.

Ciesząc się z takiego wyróżnienia pragniemy podkreślić, że było ono owocem starań redakcji o możliwie najwyższy poziom merytoryczny tekstów zamieszczanych na łamach periodyku. To zaś ściśle wiązało się ze współpracą z gronem znakomitych recenzentów, których opinie pozwalały na selekcję nadsyłanych tekstów. W nie mniejszym stopniu redakcja dążyła do tego, by „Folia Toruniensia" stały się pismem *par excellence* międzynarodowym, na łamach którego teksty anglojęzyczne zamieszczają autorzy z całego świata. Wszystko to, wraz z m.in. regularnością ukazywania się kolejnych numerów oraz dbałością o ich walor edytorski, zyskało uznanie w oczach specjalistów ze „Scopus'a". W swym uzasadnieniu podkreślili oni m.in. wysoki wskaźnik selekcji tekstów oraz otwarcie się redakcji na badaczy z „południa globu", co nadało naszemu czasopismu niemal kosmopolityczny charakter.

Doceniając wyróżnienie „Scopusa" redakcja „Folia Toruniensia" pragnie gorąco podziękować wszystkim Autorom, Recenzentom, członkom Rady Redakcyjnej oraz Współpracownikom za wspieranie nas w dążeniu do najwyższego poziomu naukowego i edytorskiego naszego rocznika. Wobec przełomu, jakim stało się włączenie nas do bazy „Scopus", łamy bieżącego numeru „Folia Toruniensia" zdecydowaliśmy się oddać głównie autorom zagranicznym, w tym zwłaszcza afrykańskim. Stanowić ma to w założeniu dowód zainteresowania dla poglądów badaczy nie tylko z innych krajów, ale i kręgów kulturowych. We wszystkich przypadkach teksty opublikowano w języku angielskim, co stanowi ukłon dla idei umiędzynarodowienia treści zamieszczanych na łamach toruńskiego periodyku.

Dzieląc się radością ze wszystkimi przyjaciółmi i sympatykami naszego czasopisma wyrażamy nadzieję, że powyższa koncepcja jego najnowszego numeru zyska zainteresowanie i uznanie Czytelników.

Redakcja „Folia Toruniensia"

Vorwort der Redaktion

Die Ausgabe des folgenden Jahrgangs von „Folia Toruniensia" erfolgt zu einem besonderen Zeitpunkt. Im Januar 2023 wurde unsere Zeitschrift in die renommierte globale Datenbank „Scopus" aufgenommen. Dadurch hat sich die Zugänglichkeit der Inhalte in unserer Zeitschrift wesentlich erhöht, was in erster Linie als Erweiterung des internationalen Leserkreises zu verstehen ist. Dies bedeutet gleichzeitig, dass Autoren, die in „Folia Toruniensia" veröffentlichen, die Reichweite ihrer Artikel, Mitteilungen, Rezensionen und Berichte erheblich erhöht haben. Das entspricht praktisch einer Internationalisierung ihrer Texte.

Wir freuen uns über diese Anerkennung und möchten betonen, dass sie das Ergebnis der Bemühungen der Redaktion um einen möglichst hohen inhaltlichen Standard der in der Zeitschrift veröffentlichten Texte ist. Dies war eng mit der Zusammenarbeit mit einer Gruppe herausragender Gutachter verbunden, deren Meinungen dazu beitrugen, die eingesandten Texte auszuwählen. Ebenso hat die Redaktion angestrebt, dass „Folia Toruniensia" zu einer erstklassigen internationalen Zeitschrift wird, in der englischsprachige Texte von Autoren aus der ganzen Welt veröffentlicht werden. All dies, zusammen mit der regelmäßigen Veröffentlichung von Ausgaben und der sorgfältigen redaktionellen Gestaltung, wurde von den Fachleuten bei „Scopus" anerkannt. In ihrer Begründung haben sie unter anderem die hohe Textauswahlrate und die Offenheit der Redaktion für Forscher aus dem „Süden der Welt" hervorgehoben, was unserer Zeitschrift einen nahezu kosmopolitischen Charakter verliehen hat.

Die Redaktion von „Folia Toruniensia" schätzt die Anerkennung durch „Scopus" sehr und möchte sich herzlich bei allen Autoren, Gutachtern, Mitgliedern des Redaktionsausschusses und Mitarbeitern bedanken, die uns bei unseren Bemühungen um höchste wissenschaftliche und redaktionelle Standards für unseren Jahrgang unterstützt haben. Angesichts des Meilensteins, den die Aufnahme in die „Scopus"-Datenbank darstellt, haben wir uns entschieden, die Seiten dieser aktuellen Ausgabe von „Folia Toruniensia" hauptsächlich ausländischen Autoren zu widmen, insbesondere afrikanischen Autoren. Dies soll ein Zeichen unseres Interesses an den Ansichten von Forschern nicht nur aus anderen Ländern, sondern auch aus verschiedenen kulturellen Kreisen sein. In allen Fällen wurden die Texte in englischer Sprache veröffentlicht, was eine Anerkennung der Idee der Internationalisierung der in unserer Zeitschrift veröffentlichten Inhalte darstellt.

Indem wir unsere Freude mit all unseren Freunden und Unterstützern unserer Zeitschrift teilen, hoffen wir, dass das oben genannte Konzept unserer neuesten Ausgabe das Interesse und die Anerkennung unserer Leser findet.

Redaktion von „Folia Toruniensia"

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Use of Mobile Technology-Based Library Services and Information Needs Satisfaction of Undergraduates in Universities in South-West Nigeria

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Abstract

Aim: Users' satisfaction has been a subject of research since the establishment of the first university library in 1984, which signalled the commencement of the provision of information services to academic library users in Nigeria. However, empirical studies on the use of mobile technology-based library services in relation to students' information needs satisfaction are rare. Thus, there is a knowledge gap, and this study, therefore, sets out to fill this gap by investigating the use of mobile technology-based library services and information needs satisfaction among undergraduates in universities in South-West Nigeria.

Methods: The research design for the study was a survey, involving a multistage sampling technique. Two questionnaires (on the level of use of mobile technology-based library services and information needs satisfaction of undergraduates) were used to sample 1,086 undergraduates across three faculties at six universities in South-West Nigeria. 1,045 responses were analysed using descriptive statistics.

Results: The study found that some mobile technology-based library services were frequently used by undergraduates, while others were not. Most of the students expressed satisfaction with the services provided by their university libraries. The results of this study also showed that there is a highly positive relationship (Pearson r = 0.53) between the use of mobile technology-based library services and the information needs satisfaction of undergraduates in South-West Nigeria.

Conclusion: This study concluded that with a good deployment of infrastructure, the provision of mobile technology-based library services will encourage their effective use by undergraduates and, consequently, a higher level of information needs satisfaction. The study recommended, among other things, that university library management should subscribe regularly to mobile technology-based library services to overcome some of the challenges posed by COVID-19.

Introduction

The information age, made possible by the advent of computers and other associated technologies, has made it inevitable for university students to search for online electronic information in a bid to satisfy their information needs. Online electronic information searching by university students is increasingly becoming a part of their academic lives. Academic libraries have always been sources of information for university students. Academic library information resources in Nigeria are partly delivered electronically, and the electronic components (such as information on flash disk, real-time access to online information by lecturers, and so on) are beginning to be incorporated into classroom work and course assignments (Haliso & Ogungbeni, 2014). The effectiveness of searching through academic library electronic resources may, therefore, affect the academic life of university students. Unfortunately, for many university students who have not done much online information searching before, searching for information using library electronic resources could be a daunting task.

The culture of universities and libraries influences university students' information needs and seeking behaviour. In other words, the students of those universities that always prioritise equipping their libraries with the latest and relevant information resources are normally satisfied with what they get from these libraries. At present, the information-gathering style of Nigerian students has been given a boost due to the web presence on university campuses in Nigeria and the prevalence of mobile devices (Okoh & Ijiekhuamhen, 2014). It is evident that as digital information resources proliferate, students are making fewer visits to university libraries to retrieve information. Many students no longer see university libraries as their main source of information when completing academic work, and they increasingly rely on the Internet as their primary information source (Biddix, Chung & Park, 2011; Zlatkin-Troitschanskaia, Hartig, Goldhammer & Krstev, 2021). The Internet provides citations to rich sources of readily available information materials for students in a similar way to that carried out in conventional sources, such as books and academic journals (Elsevier, 2022).

As the acquisition and use of portable electronic devices is on the increase among university students, librarians are coming up with innovations that will continue to make the library a preferred source of information needs satisfaction for library patrons. The outcome of such innovations has significantly popularised mobile technology-based library services. Mobile technology-based library services are services that are deployed on mobile applications and devices using the internet to meet the information needs of users. Today, such services include quick response (QR) codes, e-books, augmented reality, mobile websites, online public access catalogue (OPAC), mobile databases and short messaging services (SMS) that are provided by academic libraries and disseminated to students (Hyman, Moser & Segala, 2014). Mobile technology-based library services pro-

vide avenues for librarians to be innovative in service provision; and also stimulate the interest of patrons in library services.

There are various aspects of information needs. For an individual, these various aspects can be economical, social, political, educational or cultural. Information need is, however, dependent mostly on the information seeking behaviour of the individual in need of information (Mierzecka & Suminas, 2016). And for undergraduates, they prioritise information that meets their educational needs most of the time when they search for information. Information needs satisfaction is a broad term, which involves the contentment that follows a set of actions that an individual, such as a university student, takes to express, seek, evaluate, select and finally use this information (Fatima & Ahmad, 2008). It is, therefore, described as an individual's fulfilment after gathering and obtaining information for personal use, knowledge updating and development.

Undergraduates need access to information in its different formats, including textbooks, journals and serials, amongst others. The various formats and sources are to serve as alternatives in meeting students' information needs. Information is needed by undergraduates for a variety of purposes and satisfying the needs of the students is a responsibility that university libraries must not approach with levity.

For most university libraries, the provision of mobile technology-based services has become increasingly important due to the demands of the 21st-century information users who want to find the technologies they are used to outside of the library, deployed by the library. It is, therefore, no longer novel to find electronic mobile websites, mobile databases, e-books, mobile OPAC, SMS, QR codes and library apps services in academic libraries.

The deployment of mobile technology-based library services became inevitable for university libraries in the wake of the outbreak of the Corona virus. This outbreak, which the World Health Organization (WHO) declared a pandemic on 11 March , 2020 (Balkhair, 2020), led to the shutdown of universities and, by extension, their libraries across the world for a period of not less than four months. As part of the "new normal" imposed on humanity by COVID-19, the provision of information services that would satisfy the needs of library patrons had to encompass an online delivery of information services. This study aimed to come up with findings that will help librarians and other professionals working in the university library deploy more services using mobile technology-based platforms.

Aims

The main objective of this study was to investigate the use of mobile technology-based library services and information needs satisfaction of undergraduates in universities in South-West Nigeria. Specifically, this study aimed to:
1. Determine the level of use of mobile technology-based library services by undergraduates in universities in South-West Nigeria;

2. Ascertain the level of information needs satisfaction of undergraduates in universities in South-West Nigeria;

3. Determine the relationship between the use of mobile technology-based library services and information needs satisfaction of undergraduates in universities in South-West Nigeria.

Research Questions

The following research questions guided the study

1. What is the level of use of mobile technology-based library services by undergraduates in universities in South-West Nigeria?

2. What is the level of information needs satisfaction of undergraduates in universities in South-West Nigeria?

3. What is the relationship between the use of mobile technology-based library services and information needs satisfaction of undergraduates in universities in South-West Nigeria?

Literature Review

Information and communication technologies have made incursions into every aspect of university library operations, starting from their impact on the way university libraries process information, disseminate knowledge and interact with library materials and the way university library patrons seek and gain access to these materials (Kowalczyk, 2018), as a response to the recent global effect of infectious diseases on human endeavours. Following the outbreak of coronavirus infectious disease, university libraries have become aware of the inevitabilities of providing services using mobile technology-based library services. Mobile technologies have also changed the way library patrons search for information. Therefore, any university library that fails to put in place resources and facilities allowing it to adapt to the new ways of doing things will gradually decline in relevance in the business of providing information services to the members of the university community.

Information needs usually arise when a student wants to answer a question or solve a problem. The pursuance of the information need will be based on the types of materials that the student believes are suitable in the course of the student's study or research (Meho & Tibbo, 2001). Such materials may include electronic resources that the university library has provided and made available to the students. Students information needs are crucial in evaluating their satisfaction and quality of service provided for them, hence the design of information systems by university libraries from user perspectives (Bukar, Kimani & Namande, 2022).

Before designing a product, service or system, most university libraries routinely gather information about the needs and goals of the target users: students, faculty and non-faculty members (Pruitt & Adlin, 2006; Sasmito & Hidayattullah, 2021). Hiller (2001) stated that "if academic librarians are to realistically serve their students, they must recognize the changing needs and variations in information gathering and provide mobile technology-based library services that would be beneficial to users". In the same vein, King (2005) and Song (2009) harped on the fact that academic libraries should rebrand their services, collections and facilities to meet the rate of continuous change in information seeking behaviour, needs and expectations of students. This can be achieved through a thorough understanding of user information needs in order to provide successful information services by the deployment of information and communication technology (Zhang as cited in Ogungbeni & Nwosu, 2021).

The multiplicity of user-centred design (UCD), a design approach that focuses on the understanding of the needs and desires of the users rather than design aesthetics (Chammas, Quaresma & Mont'Alvao, 2015), has provided credence to the fact that users should be a vital part of design processes in order to create more usable and satisfying services such as mobile technology-based library services (Abras, Maloney-Krichmar & Preece, 2004). User-centred design objects optimise the usability of the designed products in such a way that they are tailored towards the ways in which users act rather than forcing users to change their ways in order to use the products (Kahraman, 2010). The development of mobile technology-based library services takes into consideration the obsession of most undergraduates with mobile devices. Most of the undergraduates in Nigeria, according to Tella, Olawuyi and Durodolu (2021), have mobile devices in the form of smartphones, laptops, palmtops, notebook computers, iPods and others. These mobile devices can only be put to optimal use with user-centred designed products like mobile technology-based library services.

This profound shift from talking about general users to the understanding and identification of the needs and goals of specific groups or individuals allows academic librarians to more effectively address user needs.

In a study on mobile web services in libraries, Wang, Ke, and Lu (2012) found that more and more university libraries have adopted existing mobile technologies to offer innovative services and that users would be encouraged to prioritise the library if previous experience yielded maximum satisfaction. Chen, Nurkhamid, Wang, Yang, Lue and Chang (2013), in a study titled "Digital Learning Playground: Supporting Authentic Learning Experiences in the Classroom", posited that using digital technologies in a university environment increases undergraduate information needs satisfaction.

Zaied (2012) carried out a study on an integrated success model for evaluating information systems in the public sector and found that perceived usefulness and users' satisfaction were strong influences on information system's success.

Baro, Onyenania and Osaheni (2010) conducted research on the information needs, sources and information searching strategies of undergraduate students and found that 65.6% of undergraduates were using internet-based library services to satisfy their information needs.
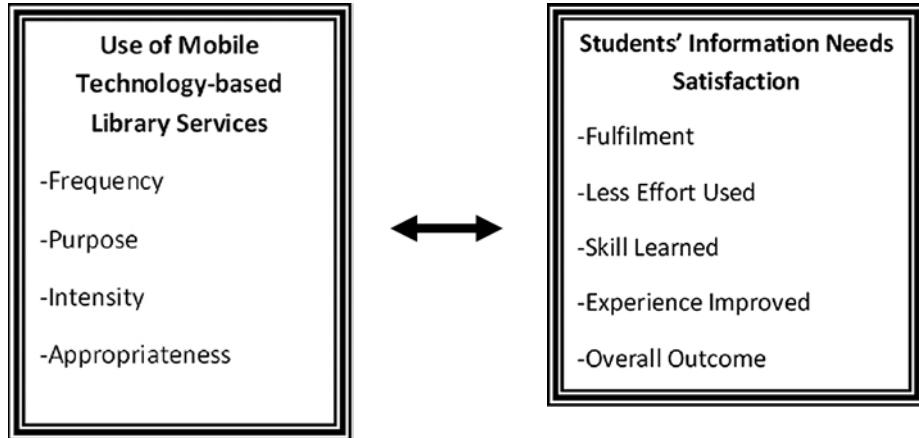
Figure 1. Conceptual framework of the use of mobile technology-based library services and information needs satisfaction.
Source: Made by Authors.

The two major variables in this study can perform the roles of both dependent or independent variables (Figure 1). The use of mobile technology-based library services is a function of frequency of use, purpose of use, intensity of use and appropriateness (Ogungbeni & Nwosu, 2021). The constructs that determine students' information needs satisfaction are fulfilment, less effort used, skill learned, experience improved and overall outcome.

Methods

The research design adopted for this research study is the survey research design. 372,000 undergraduates (2019/2020 academic session) of the 42 universities in six states of South-West Nigeria constituted the population of this study. This figure, 372,000 are the additions of the populations of the 42 universities obtained from their various academic planning units. The multi-stage sampling technique was adopted to choose the sample for this study. A purposive choosing of six universities with one university per state was carried out. These universities are Ekiti State University, Ekiti State; Babcock University, Ogun State; Federal University of Technology, Akure, Ondo State; Bowen University, Osun State; University of Ibadan, Oyo State and Lagos State University, Lagos State. This

purposive selection included two federal universities, two state universities and two private universities. These universities were chosen because of their years of establishment and their developed state of information and communication technology infrastructures. The selected universities are those established not later than year 2001 and have Internet connectivity for their students.

Proportionate random sampling technique was used to choose 1.5% of the total population of undergraduates in each of the six universities. Proportionate random sampling method was considered suitable for the study because of the heterogeneous nature of the number of undergraduates in the six universities as some have large number of undergraduates, while others have not too large a number. The 1.5% fraction is considered adequate for this study, because Dierckx (2013) recommended that for an investigative study at 95% confidence level and high response rate, the sample size can be between 1% and 5% of the total population.

The sample for each university was chosen across three faculties (Arts/Engineering, Science and Social Science/Environmental Science) with each faculty having equal representation. These three faculties were chosen because they are common to the six universities. The samples in each faculty were chosen through a random sampling technique. The total sample size for this study amounted to one thousand and eighty-six (1,086). A total of one thousand and forty-five (1,045) responses were recorded yielding a response rate of 96.2%.

The instruments for data collection are researcher-designed 'use of mobile technologies' and 'students' information needs satisfaction' questionnaires. All items of the instrument for the 'use of mobile technologies' were measured using 'Daily,' '2-3 times in a week,' 'Once in a month,' 'Once in several months' and 'Not at all.,' while those of the instrument for 'information needs satisfaction' were measured using 'Very Satisfied,' 'Satisfied,' 'Undecided,' 'Dissatisfied' and 'Very Dissatisfied.'

To ensure that the instruments yielded valid data, they were assessed for face validity at the initial and modified versions. This was achieved by providing a draft of the questionnaire to an expert in the Departments of Library and Information Science and Measurement and Evaluation in the Faculty of Education, Nnamdi Azikiwe University, Awka. A copy of the draft was provided to them together with the topic of research, the purpose of the study and research questions. They were requested to critically examine the items in relation to content relevance, appropriateness of statements, the clarity of words and length of statements in relation to the purpose of study and research questions. The internal reliability of the final versions was then assessed and confirmed adequate through the following Cronbach's alpha test statistics: use of mobile technologies (0.762) and information needs satisfaction (0.841). Data obtained from the study were analysed using descriptive statistics. Mean rating and standard deviation were used for the analysed data obtained from research questions one

and two, while Pearson's correlation coefficients was used for the analysed data related to research question three. All analyses were computed using SPSS Computer Software Package.

Results

Research Question 1: What is the level of use of mobile technology-based library services by undergraduates in universities in South-West Nigeria?

Table 2. The use of mobile technology-based library services

Frequency of use	Mobile Web-site	E-book	Mobile Data-base	QR Code	Library App	SMS	Mobile OPAC	Aug-mented Reality
Not at all	417 (39.9%)	312 (29.9%)	501 (47.9%)	692 (66.2%)	524 (50.1%)	436 (41.7%)	459 (43.9%)	863 (82.6%)
Once in several months	83 (7.9%)	103 (9.9%)	124 (11.9%)	63 (6.0%)	143 (13.7%)	0 (0.0%)	166 (15.9%)	70 (6.7%)
Once in a month	125 (12.0%)	126 (12.1%)	126 (12.1%)	42 (4.0%)	84 (8.0%)	84 (8.0%)	105 (10.0%)	42 (4.0%)
2-3 in a week	252 (24.1%)	294 (28.1%)	147 (14.1%)	186 (17.8%)	189 (18.1%)	147 (14.1%)	231 (22.1%)	68 (6.5%)
Daily	168 (16.1%)	210 (20.1%)	147 (14.1%)	62 (5.9%)	105 (10.0%)	378 (36.2%)	84 (8.0%)	2 (0.2%)
Total	1045 (100%)	1045 (100%)	1045 (100%)	1045 (100%)	1045 (100%)	1045 (100%)	1045 (100%)	1045 (100%)

The mobile technology-based library service that is frequently used on a daily basis by undergraduates in universities in South-West Nigeria, as indicated in Table 2, is SMS (36.2%), followed by e-book (20.1%), mobile website (16.1%), mobile database (14.1%), library app (10.0%), mobile OPAC (8.0%), QR code (5.9%) and augmented reality (0.2%). In terms of the services the undergraduates have never used, 82.6% have never used augmented reality, 66.2% have never used QR code, 50.1% have never used library apps, 47.9% have never used mobile databases, 43.9% have never used mobile OPAC, 41.7% have never used SMS, 39.9% have never used mobile websites and 29.9% have never used e-books.

Research Question 2: What is the level of information needs satisfaction of un-
dergraduates in universities in South-West Nigeria?

Table 3. Information Needs Satisfaction

	N	Minimum	Maxi-mum	Mean	Std. Deviation
Workshop information	1045	1.00	5.00	2.2086	1.41032
Course registration information	1045	1.00	5.00	3.5483	1.36837
Student time table	1045	1.00	5.00	3.1904	1.40576
Career prospects re-sources	1045	1.00	5.00	2.3086	1.20858
Social interaction plat-forms on university websites	1045	1.00	5.00	2.1699	1.30952
Resources for assign-ment (electronic)	1045	1.00	5.00	3.6900	1.24858
Resources for study (electronic)	1045	1.00	5.00	3.9880	1.17031
Resources for semi-nar (electronic)	1045	1.00	5.00	3.4880	1.17977
Group discussion platform	1045	1.00	5.00	2.3292	1.28309
Resources for re-search (electronic)	1045	1.00	5.00	3.7493	1.17048
Material for assign-ments (print)	1045	1.00	5.00	3.9301	1.16950
Materials for study (print)	1045	1.00	5.00	3.9703	1.17121
Valid N (listwise)	1045				

The level of information needs satisfaction of undergraduates in universities
in South-West Nigeria is represented in Table 3. In terms of electronic resources for
study, the students expressed a level of satisfaction with them (Mean=3.98). They
also expressed satisfaction with electronic resources for seminar (Mean=3.48),
information on course registration (Mean=3.54), electronic resources for assign-
ments (Mean=3.69), electronic resources for research (Mean=3.74), printed ma-
terials for study (Mean=3.97). The students, however, expressed dissatisfaction
with information need on workshop (Mean=2.20), career prospects (Mean=2.30),
platforms on websites for social interaction (Mean=2.16) and platform for group
discussions (Mean=2.32).

Table 4. Pearson r on the relationship between the use of mobile technology-based library services and information needs satisfaction

Source of Variation	N	Use of Mobile Technolo-gy-based Lib Services	Information needs satis-faction	Remarks
Use of Mobile Technol-ogy-based Lib Services	1045	1	.58	High positive relationship
Information needs satisfaction	1045	.58	1	

Correlations

Control Variables			Use of Mobile Technolo-gy-based Lib Services	Students' Information Needs Satisfaction
Students Faculties	Use of Mobile Technology-based Lib Services	Correlation	1.000	.53
		Significance (2-tailed)	.	.085
		df	0	1042
	Students' Informa-tion Needs Satis-faction	Correlation	.53	1.000
		Significance (2-tailed)	.085	.
		Df	1042	0

The result of the analysis of the relationship between the composite scores of use of mobile technology-based library services and composite scores of information needs satisfaction of undergraduates is shown in Table 4. The result shows that there is a high positive relationship between the use of mobile technology-based library services and information needs satisfaction of undergraduates in South-West Nigeria.

Discussion

Findings showed that the level of use of mobile technology-based library services by undergraduates in universities in South-West Nigeria was high, with e-books, mobile websites, short messaging services, mobile OPAC and mobile databases being used often. However, the level of use of augmented reality, QR codes and library apps was very low among the undergraduates in universities in South-West Nigeria. Wang, Ke and Lu (2012) opined that the level of use of

mobile technology-based library services will be high if users derive maximum satisfaction from the previous use. Another possible reason for the high level of use of mobile technology-based library services is the level of awareness of un-dergraduates. Chen, Nurkhamid, Wang, Yang, Lue and Chang (2013) opined that the lack of user education inhibits the use of mobile technology-based library services as users who are well sensitised to the availability and use of mobile technology-based library services become more satisfied when they search for information.

While the promotion of libraries beyond borders through the provision of mobile technology-based library services intensifies among library patrons, it is pertinent to let librarians and those who are saddled with the responsibilities of providing information and communication technology facilities on university cam-puses know that it is compulsory to provide these services in this era of a "new normal". The "new normal" imposed by the outbreak of COVID-19 is making it inevitable for academic institutions to deploy instructions to learners using online platforms.

Concerning the information students obtain from their university libraries to meet their academic information needs, the result from research question two indicates that the students expressed satisfaction with most of the information. University libraries in Nigeria have elevated their services in the field of meeting the information needs of their users, who are predominantly undergraduates. This is in a bid to remain a major source of information to undergraduates and maintain their relevance within the university community. This agrees with a study by Zaied (2012), who posited that their use and user satisfaction are vital and non-negligi-ble variables in the assessment of the effectiveness of libraries' e-services.

The result from research question three reveals that there is a highly posi-tive relationship between the use of mobile technology-based library services and the information needs satisfaction of undergraduates in South-West Nigeria. Un-dergraduates in South-West Nigeria use mobile technology-based library services in direct proportion to the satisfaction of their information needs. This result is ex-pected, because we are living in an age where mobile devices have become sine qua non in the lives of young people (undergraduates). Undergraduates, most of whom are digital natives, rely on mobile technology-based platforms for their information needs. The result of research question three is in agreement with the findings of Baro, Onyenania and Osarehin (2010) that 65.6% of undergraduates were using internet-based library services for their information needs satisfaction.

Conclusion

The positive relationship between the use of mobile technology-based li-brary services and information needs satisfaction of undergraduates in universi-ties in South-West Nigeria, as revealed by this study, has provided an empirical

basis for practice. This implies that the infrastructures for the deployment of mobile technology-based library services must be very efficient. With a good deployment of an infrastructure, the provision of mobile technology-based library services will encourage an effective use of the services by undergraduates and, consequently, a higher level of information needs satisfaction.

The management of university libraries should ensure that mobile technology-based library services are provided with adequate information and communication technology tools subscribed to regularly as this will encourage undergraduates to constantly engage in the use of mobile technology-based library services.

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Korzystanie z bibliotecznych usług mobilnych a zaspokojenie potrzeb informacyjnych studentów pierwszego stopnia uniwersytetów w południowo-zachodniej Nigerii

Obiora Kingsley Udem (PhD) jest starszym wykładowcą i badaczem na Wydziale Bibliotekoznawstwa i Informacji Naukowej, Uniwersytet Nnamdi Azikiwe, Awka, Anambra State. Posiada tytuł licencjata edukacji (B.Ed.) w dziedzinie bibliotekoznawstwa i informacji naukowej, tytuł magistra bibliotekoznawstwa i informacji naukowej (MLIS) oraz doktorat zdobyty na Uniwersytecie Nnamdi Azikiwe w Awka. Jest członkiem Nigeryjskiego Stowarzyszenia Bibliotek. Jest autorem rozdziałów książek i artykułów zarówno dla renomowanych czasopism krajowych, jak i międzynarodowych. Jego obszary zainteresowań obejmują technologie informacyjno-komunikacyjne w bibliotekach, umiejętności informacyjne/cyfrowe, media społecznościowe i biblioteki cyfrowe.

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Słowa kluczowe: usługi biblioteczne oparte na technologii mobilnej; zaspokojenie potrzeb informacyjnych; biblioteki uniwersyteckie; studenci pierwszego roku; Covid-19

Streszczenie

Cel: Zaspokojenie potrzeb użytkowników jest przedmiotem badań od czasu utworzenia pierwszej biblioteki uniwersyteckiej w 1984 r., co zasygnalizowało rozpoczęcie świadczenia usług informacyjnych dla użytkowników bibliotek akademickich w Nigerii. Jednakże badania empiryczne dotyczące korzystania z usług bibliotecznych opartych na technologii mobilnej w odniesieniu do zaspokojenia potrzeb informacyjnych studentów są rzadkie. W związku z tym istnieje luka w wiedzy, a niniejsze badanie ma na celu wypełnienie tej luki poprzez zbadanie wykorzystania usług bibliotecznych opartych na technologii mobilnej i zaspokojenia potrzeb informacyjnych wśród studentów uniwersytetów w południowo-zachodniej Nigerii.

Metodyka: Projekt badania był ankietą, obejmującą wieloetapową technikę próbkowania. Dwa kwestionariusze (dotyczące poziomu wykorzystania usług bibliotecznych opartych na technologii mobilnej i zaspokojenia potrzeb informacyjnych studentów) wykorzystano do badania na próbce 1086 studentów z trzech wydziałów na sześciu uniwersytetach w południowo-zachodniej Nigerii. Przeanalizowano 1045 odpowiedzi przy użyciu statystyk opisowych.

Wyniki: Badanie wykazało, że niektóre usługi biblioteczne oparte na technologii mobilnej były często używane przez studentów, podczas gdy inne nie. Większość studentów wyraziła zadowolenie z usług świadczonych przez biblioteki uniwersyteckie. Wyniki tego badania wykazały również, że istnieje bardzo pozytywny związek (Pearson r = 0,53) między korzystaniem z mobilnych usług bibliotecznych opartych na technologii a zaspokojeniem potrzeb informacyjnych studentów w południowo-zachodniej Nigerii.

Wnioski: W badaniu tym stwierdzono, że przy dobrym wdrożeniu infrastruktury, świadczenie usług bibliotecznych opartych na technologii mobilnej zachęci studentów do efektywnego korzystania z tych usług, a w konsekwencji poziom zaspokojenia potrzeb informacyjnych wzrośnie. W badaniu zalecono między innymi, aby kierownictwo bibliotek uniwersyteckich regularnie subskrybowało usługi biblioteczne oparte na technologii mobilnej, aby przezwyciężyć niektóre wyzwania związane z COVID-19.

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Nutzung von mobiltechnologiebasierten Bibliotheksdiensten und Erfüllung der Informationsbedürfnisse von Bachelorstudenten an Universitäten im Südwesten Nigerias

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Schlüsselworte: mobiltechnologiebasierte Bibliotheksdienste; Erfüllung der Informationsbedürfnisse; Universitätsbibliotheken; Bachelorstudierende; COVID-19

Zusammenfassung

Ziel: Die Zufriedenheit der Nutzer ist seit der Gründung der ersten Universitätsbibliothek im Jahr 1984 Gegenstand von Forschungsarbeiten, was den Beginn der Bereitstellung von Informationsdiensten für Nutzer in akademischen Bibliotheken in Nigeria signalisierte. Dennoch sind empirische Untersuchungen zur Nutzung von mobiltechnologiebasierten Bibliotheksdiensten im Zusammenhang mit der Erfüllung der Informationsbedürfnisse von Studierenden selten. Es besteht also eine Wissenslücke, und daher zielt diese Studie darauf ab, diese Lücke zu schließen, indem sie die Nutzung von mobiltechnologiebasierten Bibliotheksdiensten und die Erfüllung der Informationsbedürfnisse von Studierenden an Universitäten im Südwesten Nigerias untersucht.

Forschungsmethode: Die Studie basiert auf einer Umfrage, die eine mehrstufige Stichprobenauswahltechnik verwendete. Für die Stichprobe wurden 1086 Studenten von drei Fakultäten an sechs Universitäten im Südwesten Nigerias ausgewählt und zwei Fragebögen verwendet (einer zur Erfassung der Nutzung von mobiltechnologiebasierten Bibliotheksdiensten und einer zur Erfassung des Informationsbedarfs der Studenten). Insgesamt wurden 1045 Antworten mittels deskriptiver Statistik analysiert.

Forschungsergebnisse: Die Studie ergab, dass Bachelorstudenten oft einige mobiltechnologiebasierten Bibliotheksdienste nutzten, während sie andere weniger in Anspruch nahmen. Die meisten Studenten zeigten sich zufrieden mit den Dienstleistungen ihrer Universitätsbibliotheken. Die Ergebnisse zeigten auch, dass es eine hochpositive Korrelation (Pearson r = 0,53) zwischen der Nutzung von mobiltechnologiebasierten Bibliotheksdiensten und der Erfüllung der Informationsbedürfnisse der Bachelorstudenten im Südwesten Nigerias gibt.

Schlussfolgerung: Nach der Studie würde eine effektive Bereitstellung von mobiltechnologiebasierten Bibliotheksdiensten bei entsprechender Infrastruktur dazu beitragen, die Nutzung dieser Dienste durch Studenten zu verbessern und somit den Informationsbedarf effizienter zu decken. In der Studie wurde unter anderem empfohlen, dass die Leitung der Universitätsbibliotheken regelmäßig mobiltechnologiebasierte Bibliotheksdienste abonniert, um einige der Herausforderungen im Zusammenhang mit der Covid-19-Pandemie zu bewältigen.

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Cloud Computing: a tool for effective records and information management system in Nigerian academic libraries

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ing, etc. She is passionate about emphasising the significant roles of librarians in solving different societal issues with the arsenal of information at their disposal. She is a fellow of the Council for the Development of Social Science Research in Africa and a Queen Elizabeth Scholar in the Advanced Scholars West Africa (QES-AS-WA) program, Carleton University (Canada).

Keywords: Record and Information Management; Cloud Computing; Academic Libraries

Abstract: Academic libraries, as part of their traditional responsibility, engage in the collection and generation of data and records with a various degree of sensitivity and usefulness. This study examined the importance of library record and advocates for the implementation of cloud computing technology as a viable alternative to other mode of record storage. Cloud computing as a record management tool will help preserve the myriad of records generated from the daily activities of libraries. The paper also identified the danger of paper or electronic method of information storage. It argued that information stored in this format is susceptible to loss by theft, fire or computer viruses, hard drive collapse as well as the destruction of local library internet server due to poor maintenance culture on the part of the personnel. Apart from the data backup function, remote accessibility of these record is another key consideration for cloud computing utility in library record management. In view of the vast potential, especially in the area of its elastic storage capability, it is highly recommended for all academic libraries in the country. However, it is observed that the cost of data and irregular power supply are some of the challenges facing its adoption in Nigeria, as along with the vulnerability to cyber-attacks which may lead to a partial or total loss of record. In these regards, it is further recommended that cloud computing, as a service platform, is adopted as a backup platform rather than a sole tool for record and data management in academic libraries.

Introduction

An academic library is considered as one of the most essential components of an institution of higher learning. The library is often regarded as a sub-system of the larger academic system which interrelates with other units, to achieve the overall goals and objectives of the parent institution. According to Umoh (2017), academic libraries are generally known to serve two significant purposes; to facilitate information availability so as to aid knowledge development and to support the research activities of researchers within the institution. The goal of any academic library is to provide its users with all necessary and appropriate information resources in support of their academic pursuit (Arowosola, 2021). Thus, the supportive role performed by the library is vital in achieving the overall teaching, learning and research objectives of the institution.

As a repository hub, academic libraries ensure that all records and information resources acquired or generated within and outside the institution are pre-

serve to aid management in decision making. The medium for such a storage in most libraries has been in the form of cabinet file storage, computer storage, external hard disk drive storage and CD ROM storage.

Interestingly, with the advancement in Information and Communications Technology (ICT), library records and information can now be effectively managed using cloud computing. Cloud computing utilises software and hardware services provided by a third party within the digital space. This technology has had a major impact on library services, significant among them is the application of digital or web-based software platforms for the storage and retrieval of library records and information. The development of cloud computing technologies has helped to enhance the seamless collection, storage and retrieval of information within the library organisational system. Considering its enormous storage capability and the relative advantage of wide range of accessibility to the target users, the deployment of cloud-based technology in organisations such as the library has become essential, particularly as it pertains to the preservation of valuable official records which are prone to deterioration and susceptible to environment hazards. The deployment of cloud computing technology in this regard, eliminates the possibility of loss of data/document due to theft, fire, system crash or computer virus.

A number of studies on cloud computing have focused on examining the level of awareness of cloud computing usage in Nigerian libraries and others have been concerned with its uses in the discharge of its responsibility to users, few studies have considered it as a viable storage tool for the management of official information and records. The aim of this paper, therefore, was to examine the possibility and usefulness of adopting cloud technologies in Nigerian academic libraries as a tool for effective record management.

History of Record Management and Preservation in Nigeria

The origin of the concept of record management could be conveniently traced to the era of paper explosion, where the use of paper for records was at its peak in the United States of America. Historically, the first attempt at the preservation of records in Nigeria was manifested in 1914 where the colonial office in London demanded from the Secretary of State to report to the colony as to what was being done to ensure the preservation of colonial records. In 1916 a similar query was made in which the colonial secretary noted that "the preservation of historical records must be regarded as one of the first duties of colonial government…" (Imeremba, 2007, 22).

According to Imeremba (2007), Kenneth Dike in the early 1950 carried out research involving the use of public records. In the process, the author came across some public records which were in deplorable conditions. Finding from the study was reported to the government, and the researcher further volunteered to carry out a survey of government records and the need for the preservation

of public records in Nigeria; which the government of the day approved. Consequently, in 1953, a report was submitted based on the findings and extensive recommendation. One of such recommendations was for the establishment of the public records office.

In view of the recommendation, the Nigerian record office was established in 1954 and Kenneth Dike was made its supervisor. By the promulgation of the 1957 Public Archive Ordinance, the Nigerian record office was changed to the National Archives of Nigeria. In 1958, a permanent office was opened at the University College Library Ibadan, presently called Kenneth Dike Library, University of Ibadan.

Records: A Conceptual Explanation

The term record has its origin in a Latin word *recordari* which means to be mindful of, or to recall. Charman cited in Abdulrahman (2015) refers to a record as information captured and preserved in any recordable form or medium, and conserved by an institution, organisation or individual in pursuance of its official responsibilities or in the transaction of business. Thus, records are carriers of information that may be in any medium or format. These may include, paper, photographs, drawings, electronic records, microfilms, maps and files (Ikenna, 2021). These records are of a great value to the business transaction of the library hence, must be retained for future use. Abdulrahman (2015) noted that records constitutes an essential instrument of administration without which operational processes and function may be greatly hindered. Future planning cannot be successfully carried out without a reference to previous records, and for any effective decision making to be possible, there must be a timely access to such records. Academic library, beyond serving its innumerable clienteles in the academic community, must pay attention to the records in its custody for proper administrative functioning. The records obtainable in an academic library includes: staff file, minutes of meeting, user's personal data, cataloguing sheets, correspondences, student's registration records, entries of book borrower, receipts and inventory of facilities. In similar manner, Akporhonor (2011) identified the following as records emanating from university libraries: budget request, actual budget allocation, statement of expenditure, shipment receipts, receipt of money received and expended, periodical appraisal/promotion/confirmation records, personnel records, releases and retiring, taxes paid, reports, directives and policy statement.

To put it into another perspective, records are information carrier resources, created for the use and the benefit of the institution, specifically to support administrative decision making of the library. A good record management system, therefore, must promote easy storage, access and provides a clear direction for a successive administration. The availability of records will help a successor to determine what course to take either to adopt previous program, change techniques or practices (Touray, 2021).

Record Management System

Record management is that area of general administration and management which is concerned with achieving economy and efficiency in the creation, use, maintenance and disposition of record (Imeremba, 2007). Record management entails the systematic handling of recorded information for daily application. Basically, there are two types of records which are paper-based and electronic records. The main goal of any management system is to ensure ease, efficiency and economy in creation, use and access or retrieval of recorded information. Ikenna (2021) refers to record management as a range of activities that an organisation should perform properly to manage its records. The following are key activities included in any record management system; setting of records management policy, assigning responsibilities, establishing and promulgating procedure as well as designing, implementing and administering record keeping systems.

The concept of record management involves the handling of information throughout its life cycle which begins at creation, appraisal, retention, preservation, conservation, arrangement, accessioning and access to records. With cloud computing, records could be retained as long as the institution desires. To ensure effective record management in this age of technology and information explosion where speedy access to information is key to relevance, it is necessary for such recorded information to be converted to medium that may be preserved or stored using cloud technology. Admittedly, not all record can be stored in the cloud, for instance only documentary records can be stored in the cloud.

As noted already, effective record management system is a tool for achieving the legal, social or corporate goal of the institution. However, certain factors have been identified by researchers as reasons for the poor level of development of records management in Nigeria: shortage of personnel; financial problems; insufficient information infrastructure; poor information processing materials and application of appropriate modern information technology. However, to circumvent these challenges, library institution could adopt cloud technologies and migrate their services online. A number of studies have pinned down the popularity of cloud computing to its relative cost advantage.

Objectives of Effective Records Management

1. To provide accurate and timely information when required for organisational use
2. To adopt the most efficient procedure or processes for handling recorded information
3. To ensure the provision of information at the lowest cost
4. To ensure easy and timely access to records
5. To support the strategic planning and the overall goal of the institution

The Concept of Cloud Computing

Cloud computing is a modern information technology that allows for service delivery over the internet. Wada (2018) opined that cloud computing is a mega change that has robbed information technology of its traditional obligations and empowered end users with on-demand utility computing. Scholars like Suciu, Halunga, Apostu, Vulpe and Todoran (2013) postulate that cloud computing is conceptualised as the delivery of computing and storage capacity as a service to a group of end users. Yuvaraj (2013) defined cloud computing as nothing more than a collection of computing software and service made available and accessed through the internet rather than residing on a desktop or a local internet server. According to Pandya, cited in Wada (2018), cloud computing uses the web and central remote servers to achieve intended goals, locate clienteles and coverage of services, which has the capacity of supporting different users. Cloud computing as a term refers to all software application or other resources available online for the benefit of multiple users over the internet.

Studies have revealed that cloud computing is a cheaper means of storage, because its usage is based on either "subscription" or "pay as you go". Besides, Nag and Nikam (2016) observed that 91% of organisations in the United States of America and Europe maintained that a reduction in cost is a major reason for migrating to cloud environment. Azubuike and Igbikele (2019) summarised the benefits of cloud computing as follows: lower cost of maintenance, easier manageability, quicker time-to-market for application development and reduction in the development cost. Enefu, Gbaje and Aduku (2015), in their study, posited that libraries can apply cloud computing in various areas, such as in building a digital repository library, in search for scholarly resources, library automation, searching library data, hosting of websites and importantly for file storage.

However, according to Aiyebelehin, Makinde, Odiachi and Mbakwe (2020), the most important cloud computing-based library services are provided for accessing journals, e-books in a library as well as OPAC. The most common cloud computing service providers to libraries are World cat, Summon (Exlibris), Google Docs, Discovery service, Polaris Library System, Open Source Software (OSS) labs, Scribd and Online Computer Library Centre (OCLC).

The biggest benefit in migrating to cloud environment is the elastic storage capacity coupled with the remote accessibility of data content obtainable via subscription to the service providers. Cloud technology is most relevant in preserving academic libraries vast collection of materials and recorded information accessible via the web to their innumerable clientele without the usual time and space barrier. Enefu, Gbaje and Aduku (2015) agree that with cloud computing, waste of finances in the library can be prevented, technological problem associated with computer devices like computer viruses, system crashes leading to a loss of data could be averted, more so because the servicing server is located in the "cloud"

and not within the library. Therefore, the need for maintenance does not arise. Geoffrey cited in Enefu, Gbaje and Aduku (2015) added that when data are stored in the cloud, it offers several advantages such as common accessibility and usage by various users, the need for back up and local storage maintenance is removed. Their study carried out in the NOUN library revealed that cloud computing can be implemented in areas such as cataloguing and metadata storage.

However, cloud computing services in the library may include: online file storage, webmail, OPAC system and social networking sites.

Categories of Cloud Computing

Cloud computing services are usually divided into three major categories which are software as a service (SaaS), infrastructure as a service (IaaS) and platform as a service (PaaS) (Irenoa, Tijani & Bakare, 2018). However, other service delivery models may include: desktop as a service (DaaS) and database as a service (DBaaS).

a) Software as a service (SaaS) is also called "software on demand": In this service model, the cloud service providers make their software and applications available in the cloud allowing users upon registration or subscription to access its contents using a web browser. An example is Amazon, Google Apps, Hotmail, office software, Facebook and Skype. The use of software such as Hotmail for hosting library email, as well as Facebook and Twitter as channels of information dissemination, are examples of the application of SaaS in libraries (Chudasma, Bhatt & Trivedi, 2019). The benefit of this service is that it allows consumers (libraries) to use the service while management and maintenance are carried out by the service providers.

b) Infrastructure as a service (IaaS): This model, which is also known as Hardware-as-a -service (HaaS), enables libraries to utilise the IT infrastructure such as networking, server, storage and other computing resources provided by the service provider (Irenoa, Tijani & Bakare, 2018). IaaS allows libraries access to this service via computers, or more often virtual machines. Examples are Google computer engine, Rackspace, Amazon web services, digital ocean and Microsoft Azure, firewalls, load balancers, IP addresses, virtual local area networks (VLANs) and software bundles (Aiyebelehin et al.,2020)

c) Platform as a service (PaaS): this model of cloud computing provides customers with hardware and software tools to perform operation on the internet. Typically, they include an operating system, programmes, database and web server. The platform allows users to develop applications, run their software solutions on the cloud platform. The major benefit of this model is that it saves the user the cost and complication

of buying and managing the hardware and software infrastructures. In the library space, PaaS provides library professionals free tools to work with, for example, Google Apps enable librarians easy access to information, free online solutions such as Gmail, for communication; Google docs for documents; and spreadsheets for presentations. Furthermore, libraries through a Google platform can create their own Web applications (Chudasma, Bhatt & Trivedi, 2019).

Cloud Computing as a Tool for Effective Record Management in Nigeria Academic Library

Several studies on the adoption of cloud computing in Nigeria academic libraries indicated that librarians and library staff are aware of cloud computing usage (Aiyebelehin et al., 2020). Omwansa, Waema and Omwenga, (2014) in their study, revealed that Nigeria alongside South Africa and Kenya were the foremost nations in the use of cloud computing in Sub-Saharan Africa. Similarly, Aiyebelehin et al. (2020); Zabiru, Akiola and Hamzat (2021) reported a high level of awareness of the concept and use of cloud computing services by librarians in information service delivery in Nigeria. Their study also revealed that librarians use cloud computing chiefly for cataloguing, assisting users in information retrieval, reporting management decision and storage of files. The studies correspond with Onwubiko, Okorie and Onu (2021) who noted that cloud computing technologies can be used for various purposes in the library, such as sharing of cataloguing information or OPAC, preservation of library collection in a digital form, library orientation/information literacy and current awareness services (CAS). Cloud technologies have been adopted in most academic libraries in Nigeria in areas such as Library Management Software (e.g. KOHA & Librarika), Acquisition, Cataloguing and Classification (Zabiru, Akiola & Hamzat,2021), resources repository and preservation (Ifijeh, 2014) as well as for storage of data and files (Aiyebelehin et al., 2020).

Notwithstanding its great potential, it has been observed that very few academic libraries in Nigeria have fully explored the storage potentials of cloud technology particularly for recording management services delivery. In fact, several scholars have attributed this anomaly to certain perennial challenging factors.

Challenges Facing the Adoption of Cloud Computing in Nigerian Academic Libraries

Given its robust benefit in library service delivery, particularly in reinforcing smartness in library functions of academic library in Nigeria, cloud computing has proved to be a viable tool for record management in academic libraries. However, there are perennial and peculiar challenges faced by academic libraries in third

world countries like Nigeria, hindering the effective deployment of cloud-based technologies in the area of information and record management. Ifijeh (2014); Aiyebelehin et al. (2020): Chudasma, Bhatt and Trivedi (2019); Omoyiola (2019) and Okuonghae, Igbinovia and Adebayo (2022) observed that data security and privacy, poor funding of the library, high cost and poor internet connection, unreliable power supply are some factors that may hinder the effective deployment of cloud computing technology in academic libraries. Others include: loss of job for library staff and information professionals, technical problem associated with the use as well as negative attitude of staff to technological innovations.

Loss of Job for Library Staff and Information Professionals: Library staff and information professionals working in the library will face a stiff competition in terms of a loss of job as a result of such a technological deployment. Thus, the need for IT support staff in the maintenance of local internet server would have been eliminated. Similarly, the hosting of library resources for student remote accessibility may also be a factor in downsizing the number of library staff. These no doubt pose a serious concern for the information professionals who perhaps are already facing low user patronage. According to Gbaje and Aliyu (2014), adopting cloud computing technology is usually important where there is no desire to invest in new infrastructure or engage in training of new library staff.

Poor Funding of the Library: Several studies have shown that the funds allocated to academic libraries have been consistently low over the years (Ifijeh, 2014; Ishola, 2014; Babayi, Makintami & Tumba, 2019). These funds may plummet further if cloud computing is fully implemented.

Data Security: Usually library records with sensitive information are secured within a safe in the office of top management staff or in a special computer in the library. However, cloud technology handles this task and offers a more secure solution in the cloud. It is important to note that these cloud companies such as Microsoft, Yahoo, Amazon, Alibaba and Google also need a strong security architecture to secure their data from theft. However, reports show that these infrastructures are not impregnable as they are continuously subject to a cyber-attack. Bisong and Rahman (2011), in their study, highlighted the risk and threat cloud users face in adopting cloud technology. According to them, cloud computing system faces several vulnerabilities such as: listening in, hacking, cracking, malicious attack and outages. In fact, Hoover, cited in Bisong & Rahman (2011), reported that there have been instances when a cloud service like Ctrix's GoToMeeting, Google's Gmail and GoToWebinar where temporary unavailable for a couple of hours due to bugs. Bisong and Rahman (2011) noted that it will be catastrophic for any organisation that depends solely on cloud computing service to experience disruption for hours or days. An issue ancillary to cyber threat is the challenge of coping with a host cloud company having no adequate law protecting sensitive data and information.

High Cost of Data for Internet Access: Nigeria is one of the biggest users of internet in the world, the cost of internet data in Nigeria is overpriced (Tayo, Thompson & Thompson, 2016). In fact, Nigeria has been said to have the least affordable internet globally. Several studies have also indicated that low internet bandwidth, epileptic internet services are some of the barriers affecting internet usage in Nigeria. Expectantly, this will perform a crucial role if cloud computing will be deployed in academic libraries in Nigeria.

Summary

Cloud computing has been presented as an information technology that allows service delivery over the internet. With service models such as SaaS, IaaS and PaaS, cloud computing technology offers a wide range of services and enhances library's functions such as cataloguing and information retrieval. However, the paper has focused on the unlimited benefits of adopting cloud technology for storage service delivery in the library. It noted that library records stored in the cloud are safer and allow library staff remote access at any time of the day. In addition, it was observed that cost reduction, increasing volumes of data, records and documents generated in library make the cloud technology storage a practicable option, because it solves the problem and challenges associated with physical storage. Cloud computing usage is most beneficial to academic libraries in Nigeria, because it offers a lower cost of maintenance, is easier to manage and enables remote access to records.

Conclusion

Academic libraries, as a part of their daily routine of information service delivery, generate a lot of information and records. Studies revealed that the main medium of storage of records in these libraries are file cabinets, computer storage, external hard disks and CD ROMs. The study has also shown that these media of record storage are not sustainable as they are prone to decay and, sometimes, the documents or records stored on them are prone to system or environmental hazards. Therefore, the study argues that deployment of cloud computing technologies for storage functions will help eliminate the possibility of a loss of records occasioned by these hazards such as theft, fire or system virus. Furthermore, embracing these technologies will help enhance service delivery in the library space, particularly with respect to the need of maintaining confidentiality of sensitive official records.

Recommendations

It is helpful to recommend the following, given the findings on cloud computing:

1. Library proprietors and Library Management should provide a policy framework on how to deploy cloud technology in managing libraries' files, records and documents.
2. Cloud computing should be adopted as a backup storage system rather than the sole device for libraries records, given the fact that cloud companies and service providers are susceptible to attacks either by bugs or viruses or individual hackers with the aim of accessing secured documents
3. Library management should also seek ways of addressing some of the challenges that may affect the deployment of this technological innovation to libraries. This may take the form of training the staff in the use of ICT; leverage on a cheaper source of power like solar to meet the library's energy needs. In addition, they should engage in infopreneurial activities (large scale binding and reprographics), that may serve as alternative sources of funds to help them meet the financial needs of the department.

Impact of the study

1. The practical implication of this paper is that it is meant to inform proprietors and library management of academic libraries in Nigeria of the boundless benefits of adopting cloud technology for the preservation of official data, records and information as well as its vast collection of resources.
2. Adopting cloud computing technologies enables librarians and library staff to keep up with trending technological innovation, as well as to enhance smartness in the business of information service delivery to their clientele.
3. Essentially, if fully embraced, cloud computing is a tool that has the capacity of changing the perception of library patrons towards the library, considering the fact that it enables a library to reach more patrons and provide real time access to information, thereby giving the library the opportunity to extend its impact to the user and the society at large.

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Cloud computing: narzędzie do skutecznego zarządzania dokumentacją i informacjami w nigeryjskich bibliotekach akademickich

Nosakhare Okuonghae obecnie pełni funkcję dyrektora Biblioteki Prawa na Glorious Vision University w Ogwa, Edo State, Nigeria. Posiada tytuł LL.B w dziedzinie prawa uzyskany na Uniwersytecie Benin w Beninie. Obecnie kontynuuje studia magisterskie z bibliotekoznawstwa i informacji naukowej (MLIS) na Lead City University w Ibadanie. Nosakhare publikował z powodzeniem w czasopismach lokalnych i międzynarodowych. Pasjonował się bibliotekarstwem prawniczym, nowymi technologiami, własnością intelektualną i umiejętnością korzystania z informacji. Nosakhare jest członkiem różnych grup zawodowych, w tym Nigerian Bar Association, Nigerian Library Association oraz British Project Management Professionals i Wikimedia User Group Nigeria.

Oluwabunmi Dorcas Bakare-Fatungase jest specjalistką ds. Informacji/badaczem na Wydziale Informacji i Zarządzania, Wydział Komunikacji i Nauk Informacyjnych, Lead City University. Jej zainteresowania badawcze obejmują nowe technologie, biblioteki cyfrowe i wirtualne, wykorzystanie informacji i społeczności użytkowników, zastraszanie i zastraszanie przy użyciu urządzeń mobilnych itp. Pasjonuje się podkreślaniem znaczącej roli bibliotekarzy w rozwiązywaniu różnych problemów społecznych z arsenałem informacji, którym dysponują. Jest członkiem Rady ds. Rozwoju Badań nad Naukami Społecznymi

w Afryce oraz stypendystką Queen Elizabeth w programie Advanced Scholars West Africa (QES-AS-WA) na Uniwersytecie Carleton (Kanada).

Streszczenie: Biblioteki akademickie w ramach swoich tradycyjnych zadań, angażują się w gromadzenie i generowanie danych i dokumentów o różnym stopniu wrażliwości i użyteczności. W badaniu tym zbadano znaczenie zapisów bibliotecznych i opowiedziano się za upowszechnieniem technologii przetwarzania w chmurze jako realnej alternatywy dla innego trybu przechowywania rekordów. Chmura obliczeniowa jako narzędzie do zarządzania rekordami pomoże zachować ich niezliczoną ilość generowaną podczas codziennej działalności bibliotek. W artykule zidentyfikowano również niebezpieczeństwo związane z papierową lub elektroniczną metodą przechowywania informacji. Zastosowano argument, że informacje przechowywane w tym formacie są podatne na utratę w wyniku kradzieży, pożaru lub wirusów komputerowych, uszkodzenia dysku twardego, a także zniszczenia lokalnego serwera internetowego biblioteki z powodu złego sposobu konserwacji ze strony personelu. Oprócz funkcji tworzenia kopii zapasowych danych, zdalny dostęp do tych rekordów jest kolejnym kluczowym czynnikiem dla narzędzia przetwarzania w chmurze w zarządzaniu rekordami bibliotecznymi. Ze względu na ogromny potencjał, szczególnie w zakresie możliwości elastycznego przechowywania, jest wysoce zalecany dla wszystkich bibliotek akademickich w kraju. Obserwuje się jednak, że koszt danych i nieregularne zasilanie to niektóre z wyzwań stojących przed jego przyjęciem w Nigerii, razem z podatnością na cyberataki, które mogą prowadzić do częściowej lub całkowitej utraty danych. W związku z tym zaleca się ponadto, aby chmura obliczeniowa jako platforma usługowa została przyjęta jako platforma kopii zapasowych, a nie jako jedyne narzędzie do zarządzania dokumentacją i danymi w bibliotekach akademickich.

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Cloud-Computing: Ein effektives Werkzeug für das Dokumenten- und Informationsmanagement in nigerianischen Hochschulbibliotheken

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schaft liegt darin, die bedeutende Rolle der Bibliothekare bei der Lösung verschiedener sozialer Probleme durch ihren Informationsarsenal hervorzuheben. Sie ist Mitglied im Rat für die Entwicklung der Sozialwissenschaftlichen Forschung in Afrika (Council for the Development of Social Science Research in Africa) und eine Stipendiatin des Stipendienprogramms Queen Elizabeth Scholar Advanced Scholars West Africa (QES-AS-WA) an der Carleton University in Kanada.

Schlüsselworte: Dokumentations- und Informationsmanagement; Cloud-Computing; akademische Bibliotheken

Zusammenfassung: Akademische Bibliotheken haben im Rahmen ihrer traditionellen Aufgaben die Sammlung und Generierung von Daten und Aufzeichnungen unterschiedlicher Sensitivität und Nützlichkeit übernommen. In dieser Studie wurde die Bedeutung von Bibliotheksdokumentation untersucht, und es wurde die Einführung von Cloud-Computing-Technologie als realistische Alternative zu anderen Speicherungsmethoden für Dokumentation befürwortet. Das Cloud-Computing als Werkzeug zur Dokumentenverwaltung kann dazu beitragen, die unzähligen Aufzeichnungen, die im Rahmen des täglichen Bibliotheksbetriebs generiert werden, aufzubewahren. In dem Artikel wurde auch auf die Gefahr hingewiesen, die mit der papierbasierten oder elektronischen Speicherung von Informationen verbunden ist. Es wurde argumentiert, dass Informationen, die in diesem Format gespeichert sind, anfällig für Verluste durch Diebstahl, Feuer oder Computerviren, Festplattenausfälle und die Zerstörung des lokalen Bibliotheksservers aufgrund schlechter Wartungskultur des Personals sind. Neben der Funktion der Datensicherung ist der Fernzugriff auf diese Aufzeichnungen ein weiterer wichtiger Faktor, der bei der Verwendung von Cloud-Computing-Werkzeugen zur Verwaltung von Bibliotheksdokumenten berücksichtigt werden sollte. Aufgrund des erheblichen Potenzials, insbesondere in Bezug auf flexible Speichermöglichkeiten, wird dies insbesondere allen akademischen Bibliotheken im Land empfohlen. Es wurde jedoch festgestellt, dass Kosten für Daten und unregelmäßige Stromversorgung nur einige der Herausforderungen sind, die der Einführung von Cloud-Computing in Nigeria im Wege stehen, sowie die Anfälligkeit für Cyberangriffe, die zu teilweisem oder vollständigem Datenverlust führen können. Daher wird empfohlen, dass Cloud-Computing im Sinne einer Plattform für Dienste als Backup-Plattform, und nicht als das einzige Werkzeug zur Verwaltung von Dokumenten und Daten in akademischen Bibliotheken verwendet wird.

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Libraries as Facilitators of Digital Inclusion for Sustainable Development: The Nigerian Experience

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Abstract. **Background:** Inclusive access and use of technology are germane to sustainable development as contained in the United Nations' transformation agenda. As such, the need to bridge the digital gap through digital inclusion has become a critical goal for developmental institutions like libraries.

Purpose: This article seeks to theoretically explore how libraries can facilitate digital inclusion for sustainable development, from the Nigerian perspective.

Method: The study's theoretical assumption hinges on the resources and appropriation theory of the diffusion, acceptance and adoption of new technologies by van Dijk (2013). The conceptualisation was based on the critical dimensions of digital inclusion (acceptance, literacy and accessibility); upon which the specific objectives of the study were structured. The opinions of the authors were situated in the context of relevant literature.

Result: The study established libraries as facilitators of digital inclusion across the lines of digital acceptance, literacy and accessibility. This invariably impacts on the digital equality for sustainable development of all and sundry.

Conclusion: Libraries in Nigeria, especially those attached to academic institutions are at the forefront of championing the course for digital inclusion which is a vehicle to achieving sustainable development.

Introduction

The sustainable development framework provided by the United Nations (UN) is expected to stimulate holistic development, growth and progress among members States. Therefore, Nations, organisations, institutions and individuals are striving to accomplish this agenda to transform our world through diverse programs, projects and structures. It is considered that Information and Communication Technologies (ICTs) is a key driver to achieving this sustainable development. These technologies have the capacity to accelerate progress across all goals in the development framework (Tjoa & Tjoa, 2016; Jones, et al., 2017). Consequently, availability and access to ICT infrastructures, services and skills,

enable individuals to become citizens in the 'global village' and participants of the global economy (The International Telecommunication Union, 2017); which is the goal of digital inclusion.

Digital inclusion which encompasses the activities required to ensure the access to and the use of ICTs by all and sundry (individuals and communities) is targeted towards the attainment of digital equality, which is the state where every-one has access and possesses the capacity to fully utilise ICTs for socioeconomic gains (National Digital Inclusion Alliance in Frank, et al., 2021). Regardless of the social and economic benefits of digital inclusion to individuals and the society (Bradshaw, 2011) and the upsurge of advocacy for it (Sanders & Scanlon, 2021), digital gaps still exist across the social stratification and development taxonomy of nations. Studies have revealed that the digital inequality gap keeps widening especially between high and low income people (van Deursen & van Dijk, 2019); between urban and rural areas (Prieger, 2013), and between developed and de-veloping countries (Ho &Tseng, 2006; Dijk, 2020). However, the digital inclusion index, which measures the accessibility, affordability and usability, varies from one country to another.

In Nigeria, though Internet usage penetration has increased from 26% in 2018 to over 38% in 2022 (Kamar in Statista, 2022), and broadband penetra-tion also increased from 19.97% in January 2018 to 44.32% in June 2022 (NCC, 2022); the country's fixed line penetration according to World Bank has been on a continuous decline to 0.052% in 2020 (Helgi Analytics, 2022). The goal of digital inclusion is to ensure that no one is left out in the access and use of ICTs, which implies that the current 38% Internet usage penetration shows the presence of an enormous digital gap in Nigeria. Moreover, 4 in 10 (40%) of Nigerians are below the national poverty line (The World Bank, 2022) which hinders their affordability of digital infrastructures and data subscription to access the Internet. In addition, the average digital literacy level of the populace, which is currently uncertain; could be influenced by the total literacy rate which was reported by Nielsen (2021) to be 28%. Therefore, it can be implied that enhancing the accessibility, affordabil-ity and 'ability-to-use' or usability of individuals is vital to the realisation of digital inclusion, which is a tool for sustainable development.

In the declaration of the United Nations' 2030 agenda for sustainable de-velopment, it is noted that ICTs and global interconnectedness is capable of en-gineering progress of humans and bridging existing digital divide (United Nations, 2015). This explains the prominence of ICTs in the agenda (specifically goals 4b, 5b and 9c), in an inclusive manner. The United Nations' Department of Economic and Social Affairs (2021) affirmed that by 2030, every individual must have afford-able access to the Internet in order to eliminate the digital divide. Governments must support universal access to ICT infrastructures, develop digital literacy and skills, and increase the relevance and understanding of the advantages of using the internet. Libraries as a major stakeholder in the development agenda must,

therefore, strengthen their roles in digital inclusion as a stride towards promoting the attainment of sustainable development. Consequently, the main objective of this research is to examine libraries as a facilitator of digital inclusion for sustainable development, from the Nigeria's experience. The specific objectives of the study were to examine:

1. Libraries as a facilitator of digital acceptance in Nigeria;
2. Libraries as a facilitator of digital literacy in Nigeria;
3. Libraries as a facilitator of digital accessibility in Nigeria; and
4. Digital inclusion as a predictor of sustainable development.

Theoretical Framework

The theoretical assumption guiding this study was that certain factors are responsible for widening the digital divide and when these factors are favourably adjusted they will facilitate digital inclusion which will invariably enhance individuals' participation in the global society for sustained progress and development. This assumption and by extension, this study; is hinged on the van Dijk's theory propounded in 2005, informed by the relational view of inequality. van Dijk called the theory "a resources and appropriation theory of the diffusion, acceptance and adoption of new technologies" (van Dijk, 2013). According to Pick and Sarkar (2016, p.3890), the theory posited that "inequalities of personal position and background result in inequalities in resources for the individual, which lead in turn to inequalities of access and finally to disparities in participation by the individual in society". A graphical representation of the theory is seen in Figure 1.
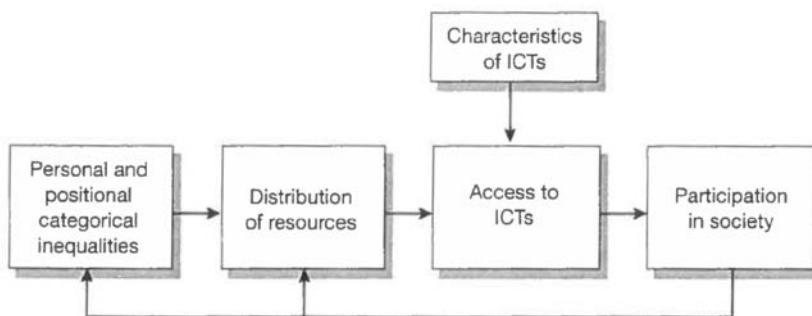
Figure 1. A casual model of van Dijk's resources and appropriation theory
Source: van Dijk, 2013

The model explains that certain personal and positional categorical inequalities will affect the distribution of resources which will in turn affect the access to ICTs. Also access to ICTs will be determined by ICTs characteristics and

this access will determine individuals' participation in the society. The clusters or variables in the model were broken down into sub-variables and presented as a modified model by Pick and Sarkar (2016) as seen in Figure 2.
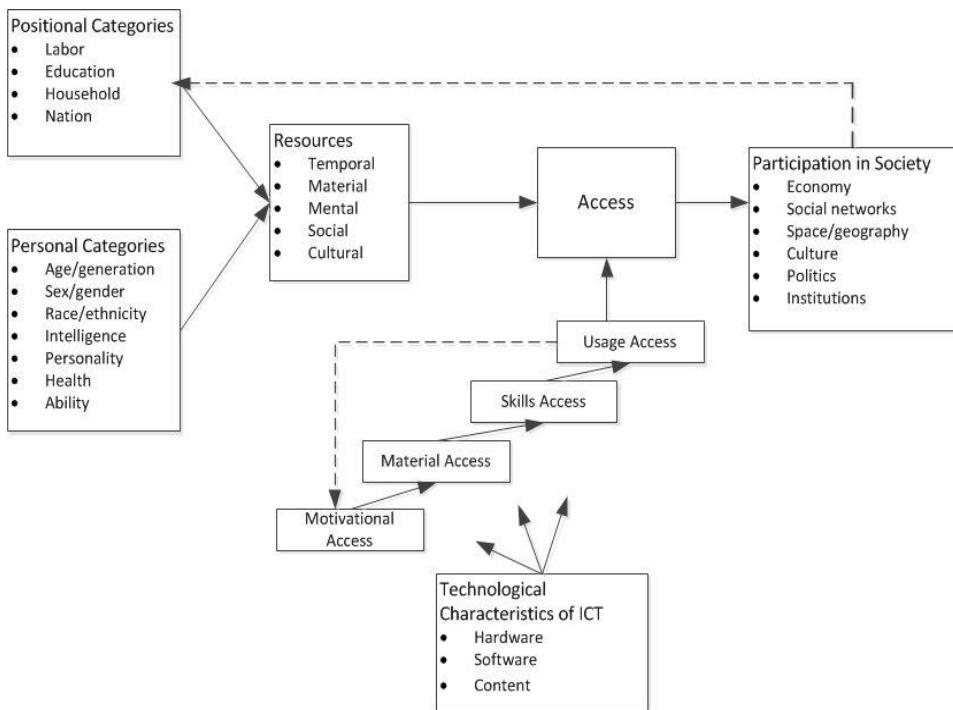
Figure 2. Modified model of the van Dijk's theory
Source: Pick & Sarkar, 2016

Figure 2 shows the various elements in the personal and positional categories which could influence the distribution of resources (even or uneven), where the temporal resource connotes time, while the mental resource connotes knowledge. The distribution of resources will determine individuals' access to ICTs. Access to ICTs is measured by usage access (actual use, usage time, broadband use and creative usage), skill access (computer skill and information literacy skill), material access (physical, mental and social resources), and motivational access (reasons to (not) get access).

In juxtaposing this theory with the theoretical assumption and ascertaining its relevance to this study, the positional and personal characteristics of people differ, causing a variance in their resources. This variation or discrepancies in their resources will affect the extent to which they can access ICTs. This results in an uneven access to ICT, consequently widening the digital divide. Given that people's access to ICTs predicts their participation in the society, there will be unequal access to social, economic, environmental, political and cultural progress, which

contravenes the tenets of inclusive sustainable development. Therefore, there is a need to provide resources to all regardless of their positional and personal categories, in order to access ICTs and become members of the global society for sustainable progress. This is the call that libraries across all types are striving to obey.

Conceptualisation of the Study

The study of Nguyen, et al. (2020) provides a thorough analysis for the concept of digital inclusion. It employed the conceptual-to-empirical approach in conceptualising the critical dimensions and characteristics or indicators of digital inclusion. According to them, the critical dimensions of digital inclusion are digital accessibility, digital literacy and digital acceptance. They also suggest indicators for each dimension, which is used to develop the conceptual model for this study, as seen in Figure 3.
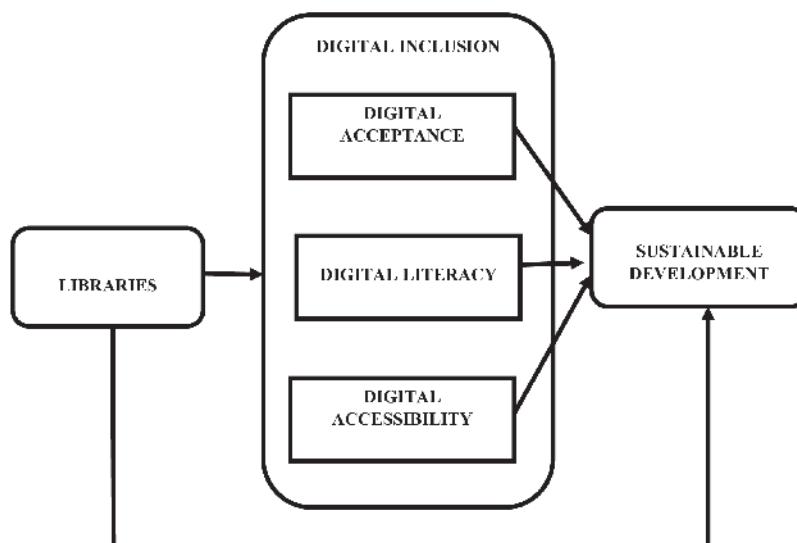
Figure 3.Conceptual model for the study (dimensions of digital inclusion)
Source: Made by Authors in based on: Nguyen, et al., 2020

In the context of this study, digital accessibility is the extent to which digital devices and infrastructure are available and navigable to everyone (Kulkarni, 2019), in order to provide a level playing ground for all and allow for productivity and inclusion (Kent, 2015). The definition of digital literature that best suits this study is provided by *Law, Woo, Torre and Wong* (2018, p.6), which states that "digital literacy is the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies for employment, decent jobs and entrepreneurship. It includes competences that

are variously referred to as computer literacy, ICT literacy, information literacy and media literacy". It includes skills and abilities required to access available technology (Jaeger, et al., 2021) and has been adjudged to be a critical part of digital inclusion required to enable people to navigate the digital world for global opportunities (Jaeger, et al., 2012). Whereas, understanding of and attitudes regarding the usage of digital technology are referred to as digital acceptance (Nguyen, et al., 2020).

Figure 3 shows the relationship between the concepts of the study. It suggests that libraries have roles to perform in ensuring digital inclusion defined by digital acceptance, literacy and accessibility. In turn, digital inclusion is fundamental in the realisation of sustainable development. Thus, libraries through digital inclusion can contribute to the realisation of sustainable development.

Review of Literature

Based on the objectives guiding the study, review of literature is carried out under the following headings:

Libraries as facilitators of digital acceptance in Nigeria

Digital acceptance is a critical factor in technology adoption and use. According to Teo (2011), technology acceptance is the willingness of a user to use technology for the purposes it is intended. Due to the adoption of technology in an effort to boost organisational performance, the need to evaluate technology acceptability is more important than ever (Park, et al., 2022). In Nigeria, efforts have been made to promote digital acceptance in the banking sector (Awoniyi, 2022) as well as in the small and medium scale sectors (Okundaye, 2016). However, one of the most prominent sectors has been the educational sector, where libraries are at the forefront of promoting digital acceptance, inclusion and utilisation through the provision of digital tools, resources and training. This is in line with the global practice, where libraries are performing crucial roles in facilitating access to technologies and other resources for development. Irrespective of its type, these libraries are organised to provide critical support to their clienteles with regards to teaching, learning and research activities though the provision of access to information resources, and facilities. Aiyebelehin et al. (2018) emphasised that, as development partners, libraries are a natural environment for introducing citizens to new innovations and technologies. In this regard, Adeleke, Ojokuku, and Ojo (2022) pointed out that libraries take initiatives to integrate digital technologies with their operations and services in order to completely meet the ever-changing needs of their clientele.

In Nigeria, many libraries are making efforts to promote digital acceptance by providing access to digital resources, offering training and workshops, collab-

orating with technology companies and creating digital spaces. Gani and Magoi (2014) reported evidence from Nigerian libraries where digital acceptance has been facilitated through the provision of access to digital resources and tools. Similarly, Urhiewhu and Emojorho (2015) reported that African universities (Nigeria inclusive) have started using technology in their daily activities. Despite previous findings of challenges resulting in low digital acceptance and use in Nigeria, many of the libraries in Nigeria have now transcended the basic and initial stages of digital maturity, while some others are at the e-Enabled level (Adeleke, Ojokuku & Ojo, 2022). This suggests that libraries in Nigeria have come of maturity digitally, to begin to pave the way or facilitate digital inclusion by creating awareness of digital technologies, making people see the benefits of using these technologies, and equipping them with the required skills increasing perceived usability.

One critical strategy Nigeria libraries have adopted for promoting digital acceptance is the creation and provision of access to technologies and networks that are mostly not accessible or too expensive for average citizens. Studies like Sadiku, et al. (2021) and Igbo, et al. (2022) provided recent evidence that shows an increasing number of libraries in Nigeria that provide access to digital resources and services aimed at driving digital acceptance. It should be noted that the efforts at promoting digital acceptance have not been championed across the board, as most of it is happening in the banking and educational sectors. This seems to exclude citizens who are not participants in these sectors. The exclusion of the vast majority from the platforms for promoting digital access and acceptance has resulted in the continuous decline in digital penetration in Nigeria (Helgi Analytics, 2022). There is a need to enlarge the mandates of libraries to include other individuals outside their immediate scope. This could be effectively done by empowering public libraries, that have broad-based objectives (Aiyebelehin, et al., 2018), to create more awareness and provide better access to digital technologies. Until this is done, the efforts of mostly academic libraries at promoting digital acceptance will not produce national effects.

Libraries as facilitators of digital literacy in Nigeria

Digital Literacy is a critical survival skill in this fast-paced, technology-driven world where the ubiquity of technologies makes it almost mandatory that everyone acquires digital skills in order to function effectively and participate actively in societal activities. In response to this necessity, the Nigerian National Information Technology Development Agency in 2021 came up with a draft framework tagged the National Information Technology Development Agency Framework (NITDA), aimed at setting the agenda for training Nigerians from all walks of life to become active participants in the 4th economic revolution built solely on digital technologies. The NITDA clearly stated that:

In order for Nigeria to improve its digital advantage and build sustainable prosperity, it must prepare for the challenges of a 21st century dynamic work environment. Building a digitally-skilled workforce will accelerate Nigeria's economic growth and development (NITDA, 2021, p. 9)

The implementation of this framework is aimed to help the Government achieve its ambitious desire to take the digital literacy rate from around 50% to 95% (Adepetun, 2022) by 2030. There is currently positive evidence of digital capacity among young people in Nigeria. Beyond government direct efforts, the actions of other stakeholders, especially in the education sector, have started yielding good results among the younger generation. Adeoye and Adeoye (2017) reported a growing level of digital literacy skills among undergraduates in Nigerian universities. This is evidence of the cumulative activities of Nigerian university libraries towards promoting digital literacy among students and faculty members. Similarly, Ikenwe, Aiyebelehin and Adjarho (2022) affirmed the need for libraries to expose students to digital learning in order to amass a considerable level of digital literacy skills.

Tyohemba (2023) reported that Tertiary Education Trust Fund (TETFUND), a government agency responsible for funding infrastructure and human capacity development in Nigeria, has made digital literacy development a major mandate for universities. Consequently, the libraries in the universities have become the centres of facilitation for these TETFUND supported initiatives. This is due, primarily, to the fact that Nigerian libraries have strived to serve as facilitators and enhancers of digital skills development, despite deficit in facilities.

Adeleke, Ojokuku and Ojo (2022) asserted that in order for Nigeria to achieve its vision of transforming into digital economy for prosperity and security, collaboration between academia and the industry is crucial. This underscores the roles the library institution must perform in ensuring that technologies are not just available and accessible but that the general populace has the digital capacity and skills to effectively utilise them for personal and national development.

The National Library of New Zealand (2023) specifically outlined the specific ways libraries facilitate digital literacy to include:
- Positioning the library as an information ecosystem
- Helping students, and teachers, learn digital literacy skills
- Supporting members of the school community to learn digital literacy skills
- Ensuring your library is digitally inclusive.

In order to effectively carry out these functions, Adeleke, Ojokuku and Ojo (2022) asserted that Nigerian universities and, by extension, its libraries need to improve their strategies for capacity development to catch-up with the fast-changing digital innovations in order to solve societal problems and challenges.

The majority of the digital natives who dominate the campuses of Nigerian universities have had the opportunity of being impacted by libraries, with useful digital skills, through the facilities and resources available at the electronic libraries. Despite the efforts of Nigerian libraries to provide digital resources and tools for enhancing digital literacy, there is still the problem of poor digital skills among library users (Odu, & Omosigho, 2017). Libraries of all types have now taken on the mandate to facilitate digital literacy through the provision of learning platforms that equip people with hands-on ability or skill in both information and media literacy, and computer literacy. However, while on this mandate, it is critical to note that Nigerian libraries still have the challenge of inadequate facilities/poor infrastructures, dearth of skilled manpower and robust digital literacy policiesto contend with in facilitating digital literacy as a stride towards digital inclusion.

Libraries as a facilitator of digital accessibility in Nigeria

Promoting digital accessibility in Nigeria is a fundamental path to ensuring that Nigeria fully participates in the global digital economy as well as provide opportunities for rapid development. The World Bank (2019) asserted that "with improvements in digital connectivity, digital skills, digital financial services and other core areas of digital development, Nigeria can fully unleash new economic opportunities, create jobs and transform people's lives". Although considerable progress has been made with regards to access to digital tools and technologies, almost 60% of the Nigerian populace still lacks access to modern digital tools (Ogune, 2021). At the forefront of promoting digital inclusion through digital accessibility in Nigeria have been the Nigerian libraries.

To facilitate digital accessibility, Nigerian university libraries have been actively engaged in the adoption of platforms for providing digital information resources and tools as far back as in the 1970s, when librarians began to integrate ICTs for library service delivery (Gani& Magi, 2014). Similarly, the Nigerian Universities Commission (NUC) has made concerted efforts over the years to make policies, as well as come up with frameworks to encourage university libraries to facilitate digital accessibility "through the Virtual Library Project and the more recent Nigerian Research and Educational Network (NgREN) Initiative" (Asogwa et al., 2015).

Rabiu, Ojukwu and Oladele (2016) carried out an extensive review of the provision of accessibility to digital resources and tools by Nigerian libraries, and found that though efforts have been made by the various libraries, access to digital resources is quite low. In a similar study by Tayo, Thompson and Thompson (2016), it was revealed that the level of access to digital access by people in most rural and

suburban areas of Nigeria was very low. In view of the low digital access rate, several investments have been made primarily in the education subsector, and as reported by Igbo, et al., (2022), most Nigerian university libraries now have websites, institutional repositories, Web-OPACs, online databases and electronic resources. The provision of these tools and resources has facilitated digital accessibility.

Digital Inclusion as a Predictor of Sustainable Development

Governments and institutions are making efforts towards the realisation of sustainable development from different angles, with the common goal of making the world a better place. They are setting up strategies and making actionable plans to achieve success across the development framework within the specified timeline. However, one vital approach to achieve this global agenda that has not received enough attention is digital inclusion. The SDG Digital Inclusion Framework by Media Ethics Lab (2020) exhaustively revealed the connection between digital inclusion and the SDGs. The framework shows that equitable digital access through digital inclusion will help to advance the UN global goals. The framework shows that digital inclusion will directly benefit 24 SDG targets and their indicators (Appendix A). It also showed how components of digital inclusion will help achieve this global agenda. For instance, digital access in healthcare will help reduce premature mortality. It will also strengthen the capacity of countries, especially of the Global South like Nigeria, for early warning, risk reduction and crisis management. Also, digital literacy equips youth and adults with relevant skills for employment, entrepreneurship and decent jobs. All of these start from the willingness of people to use technology to drive sustainable development (digital acceptance). Consequently, an effort towards digital inclusion is a remarkable stride towards the realisation of sustainable development goals. Digital inclusion can thus be considered as one of the vehicles that drives the actualisation of the UN global agenda.

The nexus between digital inclusion and sustainable development was reinforced in the study of Mamman (2020). The author claimed that the low level of digital inclusion in Nigeria, which is reflected in poor digital access, unavailability of digital infrastructures and low digital literacy, is largely attributed to the nation's poor economy, and will adversely impact on sustainable development. This is corroborated by the study of Onyam and Chukwu (2022) where they affirmed that the poor state of digital infrastructures and low digital literacy would adversely impact the sustainable development. They also revealed that libraries in ensuring digital literacy become key actors in the actualisation of sustainable development. Although digital policies and frameworks already exist in Nigeria (for example, National Digital Literacy Framework, NDLF and NITDA), to ensure digital inclusion; they were not drafted with the goal of achieving sustainable development. However, concentrated focus of these frameworks with the intention to achieve sustainable development could be more productive.

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Conclusions and Recommendations

The digital era has ushered in new opportunities and challenges for individuals and nations. With access to digital tools and resources, individuals are rising above the limitations of their environments to conquer age long hindrances to economic freedom. In fact, the digital economy is becoming the major economy, and only nations who promote digital inclusion are making profits out of the digital opportunities. The key factor in benefiting from the digital economy is participation. Hence, libraries especially those attached to academic institutions are at the forefront of facilitating digital inclusion by promoting digital acceptance, digital literacy and digital accessibility. Public libraries in Nigeria have not achieved so much in this regard due to low funding, paucity in digitally skilled manpower and digital infrastructures for facilitating digital inclusion. Despite the challenges facing the Nigerian libraries, efforts have been put into promoting digital inclusion over the years. Results from these efforts have not yet matched expectations, hence, the following are recommended:

1. Public libraries should advocate for funding to provide digital access to those in local communities.
2. Academic libraries should integrate digital literacy into their users' orientation/education programmes in their respective institutions of learning.
3. Nigerian government through the National Communications Commission (NCC) should liaise with communication companies to subsidise data tariff.
4. The import duty levied on digital infrastructures should be reviewed downwards to lessen the cost of acquiring them.
5. Libraries of all types should draft and implement a digital inclusion framework that will accommodate all components of digital inclusion and take sustainable development into cognizance.

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APPENDIX A

SDG Targets Overview

THE REPORT EXAMINES 24 SELECTED SDG TARGETS AND THEIR INDICATORS, which were chosen based on the potential benefits that digital inclusion initiatives bring to them.

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.

4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.

5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.

8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors.

8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.

9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.

10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average.

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.

16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels.

16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements.

17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.

17.17 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed.

Source: Media Ethics Lab (2020)

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Blibioteki jako moderatorzy włączenia cyfrowego na rzecz zrównoważonego rozwoju: doświadczenie nigeryjskie

Magnus Igbinovia jest obecnie dyrektorem Biblioteki Elektronicznej na Uniwersytecie Ambrose Alli w Ekpoma. Jest także adiunktem na Wydziale Bibliotekoznawstwa i Informacji Naukowej Uniwersytetu Ambrose Alli. Obecnie odbywa studia doktoranckie na Uniwersytecie w Ibadanie w Nigerii. Jest autorem ponad pięćdziesięciu (50) artykułów naukowych opublikowanych w renomowanych czasopismach międzynarodowych i lokalnych. Jest współredaktorem książki „Global Perspectives on Sustainable Library Practices" wydanej przez IGI Global. Wygłaszał również referaty na konferencjach związanych z bibliotekoznawstwem i informacją. Jest członkiem kilku organizacji zawodowych, takich jak Nigerian Library Association (NLA), Library Advocacy Group (LAG) i certyfikowany przez Librarians' Registration Council of Nigeria (LRCN). Jest laureatem nagrody Young Library and Information Professionals (yLIPs) przyznanej w 2016 roku przez Nigeryjskie Stowarzyszenie Bibliotek. Otrzymał również nagrodę "Best Paper Presenter na 55th National Conference / AGM, Nigerian Library Association (NLA)" w 2017 roku. Google scholar: https://scholar.google.com/citations?user=7C_Br5QAAAAJ

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Ambrose Alli w Ekpoma. Posiada tytuł licencjata (I klasa), magistra LIS (wyróżnienia) oraz doktora w dziedzinie bibliotekoznawstwa i informacji naukowej. Publikował wysokiej jakości artykuły zarówno w lokalnych, jak i międzynarodowych czasopismach.. Można się z nim kontaktować pod adresem aiyebelehin@aauekpoma.edu.ng.

Słowa kluczowe: akceptacja cyfrowa; dostępność cyfrowa; włączenie cyfrowe; umiejętności cyfrowe; biblioteki; Nigeria

Streszczenie. **Tło:** Inkluzyjny dostęp do technologii i korzystanie z niej są niezbędne dla zrównoważonego rozwoju zawartego w agendzie transformacji Organizacji Narodów Zjednoczonych. W związku z tym potrzeba wypełnienia luki cyfrowej poprzez integrację cyfrową stała się kluczowym celem dla instytucji rozwojowych, takich jak biblioteki.

Cel: Ten artykuł ma na celu teoretyczne zbadanie, w jaki sposób biblioteki mogą ułatwić integrację cyfrową dla zrównoważonego rozwoju, z perspektywy Nigerii.

Method: Teoretyczne założenie badania opiera się na teorii zasobów i zawłaszczenia dyfuzji, akceptacji i przyjęcia nowych technologii van Dijka (2013). Konceptualizacja opierała się na krytycznych wymiarach integracji cyfrowej (akceptacja, umiejętność czytania i pisania oraz dostępność); na podstawie których zorganizowano szczegółowe cele badania. Opinie autorów sytuowały się w kontekście odpowiedniej literatury.

Wynik: W badaniu ustalono, że biblioteki ułatwiają integrację cyfrową w zakresie akceptacji cyfrowej, umiejętności czytania i pisania oraz dostępności. Niezmiennie wpływa to na równość cyfrową dla zrównoważonego rozwoju dla wszystkich.

Wnioski: Biblioteki w Nigerii, zwłaszcza te związane z instytucjami akademickimi, przodują w promowaniu integracji cyfrowej, która jest narzędziem do osiągnięcia zrównoważonego rozwoju.

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Bibliotheken als Förderer der digitalen Integration für nachhaltige Entwicklung: Die nigerianische Erfahrung

Magnus Igbinovia ist derzeit der Leiter der Elektronischen Bibliothek an der Ambrose Alli Universität in Ekpoma. Er ist auch Dozent am Lehrstuhl für Bibliotheks- und Informationswissenschaft an dieser Universität. Derzeit absolviert er ein Promotionsstudium an der Universität in Ibadan, Nigeria. Er ist Autor von über fünfzig (50) wissenschaftlichen Artikeln, die in angesehenen internationalen und lokalen Fachzeitschriften veröffentlicht wurden. Er war Mitherausgeber des Buches „Global Perspectives on Sustainable Library Practices" („Globale Perspektiven nachhaltiger Bibliothekspraktiken"), das von IGI Global herausgegeben wurde. Außerdem hat er Vorträge auf Tagungen im Bereich Bibliotheks- und Informationswissenschaft gehalten. Er ist Mitglied mehrerer beruflicher Organisationen, darunter des Verbands der Nigerianischen Bibliotheken (Nigerian Library Association, NLA), der Bibliotheksinteressengruppe (Library Advocacy Group, LAG) und ist vom Registrierungsrat der Bibliothekare Nigerias (Librarians' Registration Council of Nigeria, LRCN) zertifiziert. Im Jahr 2016 erhielt er den Preis für junge Bibliotheks- und Informationsfachleute „Young Library and Information Professionals (yLIPs)" von der NLA. Im Jahr 2017 wurde er als „Bester Vortragender" auf der 55. Nationalen Jahreshauptversammlung des Nigerianischen Bibliotheksverbands (NLA) ausgezeichnet. Google Scholar: https://scholar.google.com/citations?user=7C_Br5QAAAAJ

Dr. Afebuameh James Aiyebelehin ist ein Dozent und Koordinator für postgraduale Studiengänge am Lehrstuhl für Bibliotheks- und Informationswissenschaft an der Ambrose Alli Universität in Ekpoma. Er hat einen Bachelorabschluss (erste Klasse), einen Masterabschluss in Bibliotheks- und Informationswissenschaft (mit Auszeichnung) sowie einen Doktortitel in diesem Bereich. Er hat qualitativ hochwertige Artikel in lokalen und internationalen Fachzeitschriften veröffentlicht. Google Scholar: https://scholar.google.com/citations?hl=pl&user=U6GnnacAAAAJ

Schlüsselworte: digitale Akzeptanz; digitale Zugänglichkeit; digitale Integration; digitale Fähigkeiten; Bibliotheken; Nigeria

Zusammenfassung. Kontext: Inklusiver Zugang zur Technologie und ihre Nutzung sind wesentlich für die nachhaltige Entwicklung gemäß dem Transformationsprogramm der Vereinten Nationen. Daher ist die Schließung der digitalen Kluft durch digitale Inklusion zu einem Schlüsselziel für Entwicklungsorganisationen wie Bibliotheken geworden.

Ziel: Dieser Artikel zielt darauf ab, theoretisch zu untersuchen, wie Bibliotheken die digitale Integration im Kontext der nachhaltigen Entwicklung aus nigerianischer Perspektive erleichtern können.

Forschungsmethode: Die theoretischen Grundlagen dieser Studie basieren auf der Ressourcen- und Aneignungstheorie der Diffusion (resources and appropriation theory of diffusion) sowie auf den Konzepten der Akzeptanz und Adoption neuer Technologien von van Dijk (2013). Die Konzeption wurde auf den kritischen Dimensionen der digitalen Integration (Akzeptanz, Lesen und Schreiben sowie Zugänglichkeit) aufgebaut, auf deren Basis detaillierte Forschungsziele entwickelt wurden. Die Ansichten der Autoren wurden im Kontext der relevanten Literatur verortet.

Forschungsergebnisse: Die Studie hat gezeigt, dass Bibliotheken die digitale Integration hinsichtlich der digitalen Akzeptanz, der Lese- und Schreibfähigkeiten sowie der Zugänglichkeit fördern. Dies trägt kontinuierlich zur digitalen Gleichstellung im Sinne einer nachhaltigen Entwicklung bei.

Schlussfolgerung: Bibliotheken in Nigeria, insbesondere solche in Verbindung mit akademischen Institutionen, spielen eine führende Rolle bei der Förderung der digitalen Integration, die als Instrument zur Erreichung nachhaltiger Entwicklung dient.

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Tackling the Challenges of Plagiarism in the Age of Information Overload by LIS Professionals in Nigerian Academic Institutions

Abdurrahman Bello Onifade is a graduate of Library and Information Studies from the University of Ibadan and currently works as an independent researcher and writer at Mumtaaz Synergy Consults. He has worked as a Meta Marketing Pro and Facebook Community Coordinator with Teleperformance Group; and as a librarian at Bayero University, Kano, and The Polytechnic Ibadan libraries. He is the author of 'Student Unionism in Nigeria: Challenges & Strategies' and has also co-authored academic papers in peer-reviewed journals. His research interests include human-computer interaction, knowledge management, information disorder and higher education reforms.

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for library advocacy programmes. She has been recognised through the Best Practicing Librarian award, Library Services Promotion award, among others.

Abstract: The advancement in information and communication technologies (ICTs) has increased the generation and dissemination of information. This has created a remarkable shift from the previous promulgation of information explosion to the concept of information overload in this age, which seems to be characterised by the ease of intellectual theft in various forms. The sophistication of ICTs and the overwhelming availability of information have subjected many research outputs to the affliction of 'copy-and-paste' syndrome and copyright abuse; and there appears to be a dearth of literature on efforts being made by LIS professionals to tackle the challenges in Nigerian academic institutions. This study, therefore, sought to draw attention to how the challenges of plagiarism are tackled by LIS professionals in the age of information overload in Nigerian academic institutions. The study adopted the phenomenological research design of qualitative methodology, using semi-structured written interview that was developed by the researchers and sent electronically to the respondents. The data were presented textually with the insertion of verbatim quotations where necessary while the research findings were analysed using thematic analysis. Findings from the 45 respondents across the six geopolitical zones in Nigeria revealed a high level of plagiarism and a moderate level of engagement in curbing the menace by LIS professionals. The study recommends a multifaceted approach to curb plagiarism; comprising information literacy instructions in academic institutions, institutionalised adoption and access to plagiarism detection software and advocacy programmes that promote ethical writing and ICT skills for LIS professionals.

Introduction

Library and information science (LIS) professionals have over the ages been vanguards in providing people-oriented services. These services have facilitated preservation and transmission of human knowledge between people of diverse communities and from one generation to another. Yet, there have been challenges that accompany the operational processes of these services; which have been increased by the continuous advancement in information and communication technologies (ICTs).

Carroll (2012) argues that ICTs have been so disruptive that the means by which information functions are carried out have changed radically. While LIS professionals have been making frantic efforts to enhance clienteles' accessibility and use of information in various formats at the right time, the soaring amount of information being generated globally has become a challenge. The data deluge in various sectors affects human activities due to the unprecedented development in computing technologies, artificial intelligence and machine learning. Alexander et al. (2016) state that societal knowledge in scholarly and non-scholarly forms has

long surpassed the cognitive limits of the individual human's mind. This has invariably created the information overload phenomenon – not a new phenomenon but with a new degree and form.

The information overload phenomenon means greater creation, generation and production of information than the human community can absorb. Due to the overabundance of information, there have been easy ways to lay claim to other people's intellectual property without adequate acknowledgement; and this is a challenge to LIS professionals. Hoq (2014) notes that information overload is a major cause of concern for LIS professionals and information users. Hoq claims that people are suffering from an 'information glut', which makes it difficult for them to find the required information quickly and conveniently from various print, electronic and online sources. However, this claim can be furthered by the challenge posed by the 'copy and paste' syndrome; whereby online information users especially would take credit for other people's intellectual works.

Plagiarism is an academic misconduct and intellectual theft; and has received significant attention because it is a complex phenomenon that undermines the value of educational institutions (Uzun & Kilis, 2020). Plagiarism involves using another person's work or ideas without acknowledging the source, and takes different forms such as self-reproduction of literary works including ghost writing. The impact of plagiarism on the intellectual output is a serious concern in the academic and scientific communities, and this is the reason the institutions continue to devise various mechanisms to contain this prevalent and undesirable activity (Cronan, Mullins, & Douglas, 2018). Furthermore, plagiarism is a challenge that robs intellectual property owners of socioeconomic benefits and scholarly recognition. The menace has gained momentum with the overabundance of information on the internet and in various digital formats; which according to Hoq (2012) creates such unique problems that the global community is challenged by rational and ethical use of information.

Therefore, LIS professionals need to always add new skill sets, especially technology driven skills, in order to stay on top of the disruptive changes brought by ICTs and the accompanying challenges. This age of information overload has indeed facilitated plagiarism; and LIS professionals as custodians of human knowledge in enhancing human progress, have significant roles to perform in tackling plagiarism. Importantly, the new dimensions that characterise this age call for new perspectives and approaches to tackle the challenges of plagiarism. This study, therefore, examines how LIS professionals tackle the challenge of plagiarism in the age of information overload in Nigeria.

Statement of the Problem

Plagiarism is a challenge that robs intellectual property owners of socioeconomic benefits and scholarly recognition. The menace has gained momen-

tum with the overabundance of information on the internet and in various digital formats. Amidst campaigns for open access to information and globalisation of knowledge, there have been frightening cases of plagiarism which make these researchers wonder that, perhaps, information users in the age of information overload may have different perception about intellectual property. Notably, there is a widespread of 'copy and paste' such that no scholarly publication might have, directly or indirectly, been spared of the menace of plagiarism. Online literature search revealed that most publications on plagiarism have focused largely on students, while LIS professionals who are key stakeholders in accessing information resources in academic settings have not been duly studied. Particularly, with the pervasive concerns caused by information overload, there is a need to highlight what efforts, mechanisms and tools are being used by LIS professionals in tackling the challenge of plagiarism in Nigeria. Therefore, this study seeks to examine how LIS professionals are tackling the plagiarism in the age of information overload in Nigerian academic institutions.

Research Questions

This study will be guided by the following research questions:
1.	What is the level of encounters of LIS professionals with plagiarism in Nigerian academic institutions?
2.	What is the level of engagement of LIS professionals in tackling plagiarism in Nigerian academic institutions?
3.	What are the factors of information overload that facilitate plagiarism in Nigerian academic institutions?
4.	What are the mechanisms to tackle plagiarism by LIS professionals in Nigerian academic institutions?
5.	What are the tools to tackle plagiarism by LIS professionals in Nigerian academic institutions?
6.	What challenges has information overload caused LIS professionals in tackling plagiarism in Nigerian academic institutions?

Literature Review

Plagiarism has been a global challenge which undermines academic integrity and robs academics and scholars of due recognition and benefits from their intellectual ideas and property. Academic institutions exist to generate knowledge which can stimulate human progress and enhance socioeconomic development. These institutions facilitate human development through creation/generation, preservation and dissemination of knowledge for societal survival (Olutola, 2016). In a bid to achieve societal development, academics, researchers and students in the academia engage in research; taking and harmonising ideas from others to

make impacting findings. However, many of these research activities have over the ages been characterised by intellectual fraud and dishonesty as some members of the academia have been enmeshed in the web of plagiarism (Olutola, 2016).

There has been no universal definition of plagiarism; yet, it has been recognised globally as a notable intellectual menace. Maina, Maina and Jauro (2014) note that plagiarism, the act of stealing, passing off and using others' ideas, words or works as one's own without acknowledging and crediting the source, is a pervasive dishonesty which seriously undermines academic integrity globally. Plagiarism means the adoption and usage of ideas, thoughts, writings/texts, computer programs, inventions, data, analyses, argumentations, pictures, techniques, tables and figures not generated from primary data but derived from other sources, as one's own without making proper acknowledgment of the sources of the work (Onuoha & Ikonne, 2013; Abioye, 2016). Although there are other scholarly fraud issues in the academia, the unceasing upsurge of plagiarism among students, academics and researchers in many tertiary institutions across the globe, makes it the most common and troubling problem in the academic world (Awasthi, 2019; Olutola, 2016). Plagiarism is an academic crime and depicts a breach of academic integrity which is believed to lessen or sometimes eliminate the real value of scholarly publications (Oyewole & Abioye, 2018).

Plagiarism, summarily, can be regarded as intentional or unintentional, total or partial lifting, paraphrasing, modification and usage of other people's intellectual property (in any format) without giving due credit, acknowledgement or recognition to the original owners or sources. Plagiarism could be intentional or unintentional; although there have been divergent scholarly views about this assertion. Orim (2017), while citing Coventry University, notes that intentional plagiarism stems from the deliberate reproduction or use of another person's work without acknowledgement; while unintentional could be as a result of poor academic practice. The latter, however, has consequent effects on the quality of intellectual output of the plagiarists, particularly students. Gullifer and Tyson (2010) argue that plagiarism does not only bypass learning but produces incompetent graduates whose lack of skills may pose potential threats to societal development through the provision of inaccurate knowledge at different levels.

The challenge of plagiarism in Nigerian academic institutions continues to soar, despite efforts being made by various stakeholders in the education system to curb the menace. Olutola (2016) states that the upsurge in cases of plagiarism in Nigerian academic institutions is one of the factors that necessitated the partnership between the Committee of Vice-Chancellors of Nigerian Universities (CVC) and Turnitin Incorporation – an organisation that specialises in the production of plagiarism detection software, to establish an institutional plagiarism mitigation system in the nation. Nonetheless, several studies have shown that scholarly debates on an enduring panacea to plagiarism have not ceased due to

the challenge it poses, especially with the global shift from information explosion to information overload (Onuoha & Ikonne, 2013; Orim, Davies, Borg & Glendinning, 2013; Onwubiko, 2012; Babalola, 2012; Adebayo, 2011).

Different factors have been identified in several studies as the causes of plagiarism in academic institutions. The causes found and highlighted in some of these studies include: lack of academic writing skills; improper time management; and the proliferation of ICTs which has led to information overload and become influential to the easy accessibility of information resources on the internet, for copy-and-paste syndrome (Harji, Ismail, Chetty & Letchumanan, 2017; Polona, Urh, Jerebic, Trivan & Eva, 2017). The proliferation of ICTs has indeed facilitated access to abundant information, especially in digital and electronic formats. This means that there is overwhelming, available information for the human minds to absorb; hence, the academia – a subset of the global community, has become subject to the phenomenon of information overload. Oyewole and Abioye (2018) argue that the propensity of plagiarism has really become high due to the ease with which hundreds of electronic documents can be downloaded on the Internet through search engines. Likewise, these factors which cause information overload, directly or indirectly, have effects on researchers' inclination towards plagiarism. These factors as identified by Eppler and Menjis, as cited in Hoq (2014), are: too much information; difficulty in managing information; multiplicity of sources of information; lack of time to understand information; and irrelevance or unimportance of information.

Occasionally, these factors seem to create beautiful deceit in the minds of some researchers who engage in plagiarism, thinking that since the internet is overwhelmed with information, they could easily lay claim to others' intellectual property without being caught. Alternatively, some researchers have become guilty of plagiarism not just because they lack time to find and grasp the right information; but also due to lack of requisite information literacy skills, i.e. accessing, retrieving and managing relevant information from multiple sources. This is aside the dearth of formal courses in LIS schools which emphasise information ethics as a mechanism to forestall copyright abuse, amidst other disciplines.

Specifically, these researchers note that while most Nigerian higher institutions offer courses in research methodology at various levels, there have not been courses dedicated to academic writing; whereas it remains one of the ways through which students are evaluated in academic institutions before graduation. This lack of requisite academic writing skills has been an influential factor for the high cases of plagiarism and why a significant number of academics, researchers and students have been predisposed to the menace (Obinna, 2012; Orim, Davis, Borg, & Glendinning, 2013; Olutola, 2016).

The situation is worsened in this age of information overload because being overwhelmed by information stimulates indolence especially by those lacking information searching skills, as many resort to plagiarism. More so, some research-

ers in the academia are unmindful of copyright abuse. The problem of plagiarism, according to Wahid (2011), could potentially result from uncertainties due to abundant availability of information or lack of copyright awareness of users. The resultant effect is that information overload has facilitated the plagiarism through the 'copy and paste' syndrome, such that no scholarly publication might have, directly or indirectly, been spared of the menace of plagiarism. Nelms (2012), for instance, stated that McCabe and Trevino disclosed in their report that 84% of students admitted to having plagiarised at least once. In Nigeria, despite efforts being made to tackle this menace by management of tertiary institutions, the results have not been commensurate as there are still alarming cases of plagiarism reported on a regular basis (Omonijo, Anyaegbunam, Uche, Obiorah & Ogunwa, 2017; Maina, Maina & Jauro, 2014).

However, LIS professionals have invaluable roles to perform in tackling the challenges of plagiarism. While there has been a reliance on detective software to curb plagiarism in academic institutions, there are limitations to that software; hence, Olutola (2016) argues that there should be a shift from total reliance on plagiarism software to assertive and sustained training on scholarly writings nested within related curricula of various academic institutions. To achieve this in Nigerian academic institutions would be impossible without valuable inputs from LIS professionals. Importantly, the roles of LIS professionals should manifest in this age in many ways such as training other academics, scholars, researchers and students on information literacy skills, the rudiments of citation and bibliographic techniques and information ethics. For instance, ethics was incorporated into a core business class where students were surveyed with a pre- and post-test to determine whether students completing the course would demonstrate more ethical judgments than those who did not complete the course. Findings from the study revealed that ethics can change an individual's ability to reason ethically; suggesting that incorporating ethics instruction into a discipline can lead to ethical judgment against plagiarism (Cloninger & Selvarajan, 2010).

Furthermore, to increase awareness about what constitutes plagiarism in this age of information overload, LIS professionals with requisite ICT skills have been noted to create physical instructions or tutorials on web-pages, thereby tactically incorporating plagiarism information into library instruction sessions (Maxymuk, Lampert, cited in Strittmatter & Bratton, 2014). Highlighting the roles of LIS professionals in tackling plagiarism, Gibson and Chester-Fangman (2011) in a survey found that 46 percent indicated that they had worked with at least one instructor to design an effective assignment during the course of an academic year; and that approximately 75 percent incorporated plagiarism information into library instruction sessions. Likewise, LIS professionals at Long Island University, United States, incorporated plagiarism instruction into library instruction programmes, and evaluated the effectiveness of the instruction on students through a pre- and post-test survey (Strittmatter & Bratton, 2014). Findings from the post-test sur-

vey showed that students were better able to identify when plagiarism occurred, increasing from 73 to 97 percent; were better informed about what plagiarism is, from 49 to 89 percent; were better able to cite Internet sources, from 31 to 44 percent; and had a better understanding of the significant effects and penalties associated with plagiarism, from 26 to 88 percent.

Methodology

This study adopted a phenomenological research design of qualitative methods. This research design was adopted to enable the researchers to collect the respondents' first-hand experiences and opinions about the challenges of plagiarism vis-à-vis the age of information overload. Phenomenological research is usually complex due to its tri-fold adoption as a research philosophy, an approach and a methodology in qualitative studies (Heinonen, 2015c; Errasti-Ibarrondo, Jordán-Sierra, Díez-Del-Corral, & Arantzamendi, 2018). However, Qutoshi (2018) argued that phenomenological design helps to look closely at the issues under investigation to explore lived experiences and better understand the social practices. Likewise, the phenomenological approach is more efficient for describing social practices, motivation, beliefs, insights and subjective realities (Qutoshi, 2018).

In the data collection process, the researchers developed a semi-structured written interview which was sent to the respondents electronically. The written interview accounts do not replace oral interviews but elicit focused responses that facilitate the analysis of data. The target respondents for this study comprised sixty LIS professionals (i.e. librarians, information scientists and academics in library schools and academic libraries) from the six geopolitical zones in Nigeria. That is ten from each geopolitical zone because there was no comprehensive database to ascertain the exact number of LIS professionals in the country or each region. The study was conducted during the COVID-19 pandemic lockdown, and the respondents were contacted electronically via email and online platforms that were strictly for LIS professionals. These platforms included online Telegram and WhatsApp groups specifically for professional bodies like the Nigerian Library Association (NLA), the Nigerian Association of Library and Information Science Educators (NALISE) and the Association of Women Librarians in Nigeria (AWLIN). The researchers followed up by posting on these groups for 14 days and reached out to respondents who requested the survey be sent to their emails. At the end of the 14 days, 45 responses were received from the survey and the data collected was presented descriptively and analysed using thematic analyses.

Additionally, most of the respondents were academics/lecturers in LIS, the majority of whom have obtained doctorate degrees (Fig.1) and have been in professional practice for 10 years (Fig. 2). The majority of the respondents are based in the South-South geopolitical zone, followed by the South-East and North Central geopolitical zones (Fig. 3). This implies that majority of the interviewees have

sufficient experience about issues relating to plagiarism and how it can be tackled in the age of information overload.

Academic Cadre

45 responses

- Professor
- Associate Professor/Reader
- Dr
- MLS
- Mr.
- Mr
- Masters
- MLIS

△ 1/3 ▽
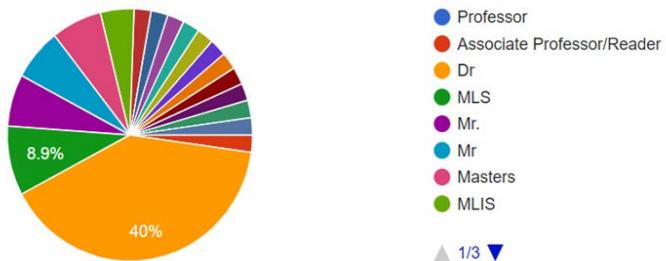
Fig. 1: Academic cadre of the respondents

Source: Made by Authors

Years of Professional Experience

45 responses

- 5—10 years
- 10—15 years
- 15—20 years
- 20 years and above
- 4 years
- Below 5 years
- 2
- Below 5
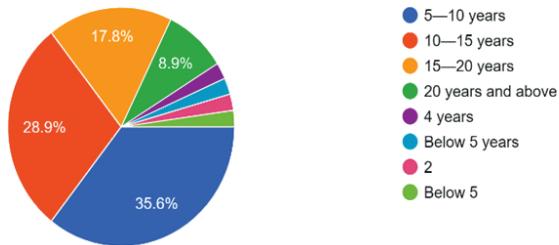
Fig. 2: Years of professional experience of the respondents

Source: Made by Authors
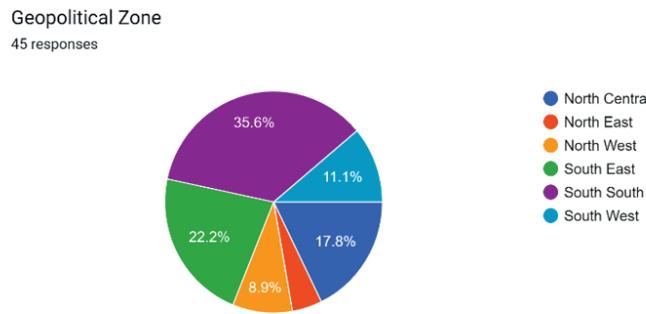
Fig. 3: Geopolitical zones of the respondents
Source: Made by Authors

In presenting and analysing the data, the researchers used the steps identified in the thematic analysis approach of Braun and Clarke (2012), which involves thorough familiarisation with manual coding, generating, reviewing and naming themes that were identified from the qualitative data elicited from respondents. The themes identified from the findings were: High Level of Plagiarism; Moderate Level of Engagement by LIS Professionals; Academic Pressure, Internet and Lack of Knowledge; Advocacy, Sensitisation, Information Literacy and User Education; Institutionalisation of Plagiarism Detection Software and Penalties; Publish or Perish Syndrome, Copyright Infringement and Low Ratings of Academic Institutions; and Information Management, Consultancy and Review of LIS Curriculum.

Findings

Research Question 1: What is the level of encounters of LIS professionals with plagiarism in Nigerian academic institutions?

High Level of Plagiarism

The majority of the LIS professionals revealed that they had a high level of encounter with plagiarism in Nigerian academic institutions. This was evident in LIS professionals' views that plagiarism was 'very high', 'quite high', 'a lot', 'rampant', 'almost always', 'often' and 'prevalent'. The interviews confirmed that plagiarism pervades academic institutions. Specifically, one LIS professional stated that,

> "it is indeed a great challenge that has eaten
> deep into the system;"
> While another claimed that,
> "plagiarism is found in about 70% of pub-

> lished works, could appear in any form,
> whether not properly cited, referenced
> or slightly paraphrased and claimed."

This finding is in tandem with the assertion of Olutola (2016) that the high level of plagiarism cases and the need to curb the spread was one of the motivating factors that led to the collaboration between the Committee of Vice-Chancellors of Nigerian Universities (CVC) and Turnitin Incorporation in Nigerian academic institutions.

Research Question 2: What is the level of engagement of LIS professionals in tackling plagiarism in Nigerian academic institutions?

Moderate Level of Engagement by LIS Professionals

Although encounters with plagiarism were high, the findings revealed that the level of engagement in curbing the menace by LIS professionals was moderate. While a few LIS professionals had a high level of engagement in fighting plagiarism, the majority of them stated that their engagement with plagiarism was 'low', 'moderate', 'medium', 'some extent' or 'fair'. One of the LIS professionals responded that,

> "We are doing our very best to curtail the
> level of plagiarism by using a trial version of
> turning software;"

While another mentioned that, "I encourage students to write ethically" and "I only ensure that myself and my post graduate students do not plagiarize".

This finding validates the studies of Strittmatter and Bratton (2014) and Fangman (2011) that LIS professionals have always performed valuable roles by integrating library instructions that dissuade students from engaging in plagiarism. However, there is a need for more involvement by more LIS professionals to curtail the spread of plagiarism in academic institutions.

Research Question 3: What are the factors of information overload that facilitate plagiarism in Nigerian academic institutions?

Academic Pressure, Internet and Lack of Knowledge about Predatory Journals

The factors that facilitate plagiarism, according to the LIS professionals, were many. However, responses showed that academic pressure, internet and

lack of knowledge were notable factors. One of the respondents disclosed that, "The publish or perish syndrome, lack of research grants and deliberate corrupt practices in the minds of academicians" facilitate plagiarism.

Another responded added that, "The music of publish or perish, this is good but at the same time has affected the ambitiousness to publish by all means. Predatory journals are good at promoting plagiarism because they subject materials sent to them to little or no review not to mention of plagiarism check and you see highly plagiarized materials getting published."

The internet has become so overloaded with information that users have become lazier to read or take time to analyse, digest and or develop others' ideas based on what had been read. This is worsened by easy access to search engines on the internet and availability of social media networks through which information is disseminated in unquantifiable amount and copyright is ignored. One respondent stated that, "academic pressure, laziness, and ignorance of the law against plagiarism" have also enabled plagiarism.

This finding is in congruent with the studies of Oyewole and Abioye (2018), Polona et al. (2017), and Harji et al. (2017) which established that the abundance and accessibility to digital/electronic information resources on search engines and the Internet have influenced the proliferation of plagiarism.

Research Question 4: What are the mechanisms to tackle plagiarism by LIS professionals in Nigerian academic institutions?

Advocacy, Sensitisation, Information Literacy and User Education

The mechanisms that have been adopted by LIS professionals to curb plagiarism varied. Some of these mechanisms were advocacy for proper citation and referencing among researchers to help acknowledge intellectual property owners. Sensitisation during lectures/seminars/workshops, library and or institutional orientations had also been used by some LIS professionals to raise awareness about the negative effects of plagiarism.

LIS professionals, however, emphasised that 'information literacy' has been key to equipping researchers to avoid plagiarism in this age of information overload. One LIS professional declared that "organising literacy programmes on plagiarism and promoting use of plagiarism applications" is helpful in tackling plagiarism.

Likewise, user education in academic libraries has been identified as viable mechanism to acquaint researchers with the right attitudes towards using information resources. Furthermore, some LIS professionals engaged in teaching 'Research Methodology' emphasised information ethics and informally advised colleagues as preventive mechanisms against plagiarism. Another LIS professional

believed that the right mechanisms are "advising colleagues to study citation and referencing styles like APA" and "plagiarism software and encouraging originality in carrying out research or academic works."

Research Question 5: What are the tools to tackle plagiarism by LIS professionals in Nigerian academic institutions?

Institutionalisation of Plagiarism Detection Software and Penalties

LIS professionals identified ICTs, closed circuit television (CCTV) in libraries, and plagiarism detection software such as 'Turn-it-in', 'Grammarly', 'Duplichecker', etc. as viable tools to spot and prevent plagiarism in Nigerian academic institutions. Some LIS professionals argued that penalties such as 'rejection of plagiarised academic works or publications and demotion of defaulters' should be encouraged.

One of the respondents stated that LIS professionals use "Plagiarism Checker, Grammarly and Dupplichecker".

While some use "Turnitin software and any other plagiarism detection software. Equally, more trainings are given on how to acknowledge a source properly".

Research Question 6: What challenges has information overload caused in tackling plagiarism in Nigerian academic institutions?

Copyright Infringement, Low Ratings of Academic Institutions and Lack of Productivity

The major challenges information overload has caused according to LIS professionals are copyright infringement, low ratings of Nigerian academic institutions and the lack of genuine productivity fuelled by the 'publish or perish' syndrome. The dearth of publications with high quality and originality, which are free from plagiarism, has been a challenge to the invisibility or low rankings of many Nigerian academic institutions in the global community.

Furthermore, laziness among students and academics, poor knowledge of literature search, the copy-and-paste tendency, unavailability of research works on institutional repositories and difficulty of detecting plagiarism amidst vast publications on the internet, have been possible due to information overload. A respondent from the LIS professionals stated that plagiarism "affects productivity, people become overwhelmed by so many information which reduces their ability to concentrate effectively on the most important messages to produce quality". Another respondent disclosed that information overload has caused "copyright vi-

olation, poor reading culture, poor knowledge of literature search, and poor matrix synthesis of literature".

This finding corresponds to the views espoused in the study of Hoq (2014) that multiple sources of information and the lack of time to critically evaluate the reliability of these sources lead to copyright abuse and overwhelming impact of information overload in academic communities.

Conclusion and Recommendations

This study has further established that plagiarism is high in Nigerian academic institutions; while LIS professionals' engagement in tackling the challenge in this age of information overload has not been adequate enough. The high level of plagiarism in this age has been characterised by the overwhelming abundance of information resources on the internet; common copy-and-paste tendency; academic pressure; publish or perish syndrome; lack of information literacy and academic writing skills; ubiquitous dearth of ethical compliance to copyright regulations; etc.

However, the rise in plagiarism underscores the prospects of LIS professionals whose potentials as information managers can be harnessed to curb the menace. Specifically, LIS professionals have been noted to be critical and analytical thinkers who can serve as anti-plagiarism checkers and consultants. More so, the continuous acquisition of ICT skills by LIS professionals brings to fore their expertise to spot, curtail and deter other members in the academia from plagiarism.

Consequently, based on research findings of this study, the following recommendations are made:

- The revelation that plagiarism is still high calls for a need to adopt a multifaceted approach to curb the menace. Therefore, the use of plagiarism detection software should be fully adopted in all academic institutions in Nigeria; and staff should be equipped with ICT skills to understand the peculiarities of each type and how it can be used to curtail the increase in plagiarism. Likewise, LIS professionals should be more proactive in providing and enabling access for students and researchers to use that software while conducting research activities. Additionally, the LIS curriculum should be reviewed to integrate Academic Writing as a core course and/or incorporated into Research Method(ology) courses. This will expose members in the academia to proper citation techniques, referencing styles, and the nitty-gritty of producing academic works of high quality, free from plagiarism. Also, professional bodies like the NLA and NALISE should initiate, stimulate and facilitate the creation of a postgraduate programme in Intellectual Property Rights, to deepen the understanding of LIS professionals on

copyrights and plagiarism, and equip them with experiential knowledge that can be transferred in formal and informal learning settings.

- LIS professionals need to be more engaged in activities that discourage plagiarism. As information professionals and custodians of knowledge, they should leverage all means to promote ethical information dissemination and knowledge production. This can be undertaken by teaching information literacy courses across all levels in library schools, and the advocacy for its incorporation into general studies programmes for non-LIS students. Orientation programmes, library week activities and workshops should be explored as avenues for increased engagements to reduce plagiarism in academic institutions.

- The pervasive pressure to publish boosts quantity of publication at the expense of quality and impact. Academic institutions should revamp the systemisation of pressure which prioritises the number of papers to get promotion, and enables plagiarised publications as a requirement for getting to the peak in the institutions. While academic activities centre on three key areas: teaching, research and community services, there should be qualitative standards to engender value in the system to recognise other areas beyond the quantity of publications. Moreover, the academics and students need to be deliberate about acquiring knowledge and relevant skills in bibliographic search, information literacy, information management and academic writing techniques to shun plagiarism.

- The use of advocacy, user education and sensitisation programmes should be sustained and encouraged to reach other personnel and disciplines in academic institutions. This should be undertaken at times through collaboration with non-academic staff, student associations and sociocultural groups on campus. In some institutions where there are campus radio stations, professionals should be invited periodically to discuss the negative effects of plagiarism and how it can be avoided.

- The institutionalisation of plagiarism detection software should be encouraged through premium subscription for members of the academic institutions, including students. Students should be mandated to submit their academic works through these software platforms so they become aware of the plagiarism level of their submissions. This has been the practice in some developed countries like the United Kingdom; hence, students gradually know that there are penalties for intellectual theft. The students also become conscious of better ways of acknowledging information sources, and the negative effects of plagiarism on their intellectual outputs.

- • To curb the challenges caused by information overload, there should be incentive mechanisms for authors whose works project originality and quality in academic institutions. Beyond teaching, the quality of research activities and knowledge transfer is part of the criteria used for ranking higher institutions. Publications free from plagiarism boost the visibility and credibility of these institutions; thus, the authors should be funded with research grants or reimbursed for their expenses. This will serve as motivation for lazy writers whose productivity has been worsened by plagiarism.

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Radzenie sobie z wyzwaniem plagiatu w dobie przeładowania informacjami przez specjalistów ds. bibliotekarstwa i technologii informatycznych w nigeryjskich instytucjach akademickich

Abdurrahman Bello Onifade jest absolwentem bibliotekoznawstwa i informacji na Uniwersytecie w Ibadanie, a obecnie pracuje jako niezależny badacz i pisarz w Mumtaaz Synergy Consults. Pracował jako Meta Marketing Pro i koordynator społeczności Facebooka w Teleperformance Group; oraz jako bibliotekarz w bibliotekach Bayero University, Kano i The Polytechnic Ibadan. Jest autorem książki „Student Unionism in Nigeria: Challenges & Strategies", a także współautorem artykułów naukowych w recenzowanych czasopismach. Jego zainteresowania badawcze obejmują interakcje człowiek-komputer, zarządzanie wiedzą, zaburzenia informacyjne i reformy szkolnictwa wyższego.

Dr Juliet C. Alex-Nmecha jest obecnie pełniącą obowiązki kierownika Wydziału Bibliotekoznawstwa i Informacji Naukowej na Uniwersytecie Port Harcourt, Rivers State, Nigeria. Jest także skarbniczką narodową Nigeryjskiego Stowarzyszenia Bibliotek (NLA) i służyła jako przewodnicząca Oddziału Rivers State NLA. Poza profesjonalnym naucza-

niem, badaniami i rozwojem społeczności, jest mentorką młodych bibliotekarzy i jest silnym głosem w programach rzecznictwa bibliotek. Została wyróżniona m.in. nagrodą Best Practicing Libratian, od Library Services Promotion.

S **łowa kluczowe:** ICT; przeciążenie informacjami; specjaliści ds. bibliotekarstwa i technologii informacyjnych; plagiat; Nigeria

S **treszczenie:** Postęp w technologiach informacyjno-komunikacyjnych (ICT) zwiększył generowanie i rozpowszechnianie informacji. Spowodowało to niezwykłe przejście od poprzedniego rozpowszechniania eksplozji informacyjnej do koncepcji przeciążenia informacyjnego w tym wieku, która wydaje się charakteryzować łatwością kradzieży intelektualnej w różnych formach. Wyrafinowanie technologii informacyjno-komunikacyjnych i przytłaczająca dostępność informacji sprawiły, że wiele wyników badań zostało dotkniętych syndromem kopiowania i wklejania oraz nadużywania praw autorskich; i wydaje się, że brakuje literatury na temat wysiłków podejmowanych przez specjalistów ds. bibliotekarstwa i technologii informacyjnych mających na celu sprostanie wyzwaniom w nigeryjskich instytucjach akademickich. Badanie to miało zatem na celu zwrócenie uwagi na to, w jaki sposób wyzwania związane z plagiatem są rozwiązywane przez specjalistów ds. bibliotekarstwa i technologii informacyjnych w dobie przeciążenia informacjami w nigeryjskich instytucjach akademickich. W badaniu przyjęto fenomenologiczny projekt badawczy metodologii jakościowej, wykorzystując częściowo ustrukturyzowany wywiad pisemny, który został opracowany przez naukowców i wysłany elektronicznie do respondentów. Dane zostały przedstawione tekstowo z wstawieniem dosłownych cytatów tam, gdzie to konieczne, podczas gdy wyniki badań zostały przeanalizowane za pomocą analizy tematycznej. Ustalenia 45 respondentów w sześciu strefach geopolitycznych w Nigerii ujawniły wysoki poziom plagiatu i umiarkowany poziom zaangażowania w ograniczanie zagrożenia ze strony specjalistów ds. bibliotekarstwa i technologii informacyjnych. Badanie zaleca wieloaspektowe podejście do ograniczenia plagiatu; obejmujące instrukcje dotyczące umiejętności korzystania z informacji w instytucjach akademickich, zinstytucjonalizowane przyjęcie i dostęp do oprogramowania do wykrywania plagiatów oraz programy rzecznictwa, które promują etyczne pisanie i umiejętności ICT dla specjalistów ds. bibliotekarstwa i technologii informacyjnych.

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Die Bewältigung von Herausforderungen im Zusammenhang mit Plagiaten in Zeiten der Informationsüberlastung durch Fachleute für Bibliotheks- und Informationswissenschaft an nigerianischen Hochschuleinrichtungen

Abdurrahman Bello Onifade ist Absolvent des Studiengangs Bibliotheks- und Informationswissenschaft an der Universität Ibadan und arbeitet derzeit als unabhängiger Forscher und Schriftsteller bei Mumtaaz Synergy Consults. Zuvor war er als Metamarketing-Profi (Meta Marketing Pro) und Facebook-Community-Koordinator bei der Teleperformance Group tätig sowie als Bibliothekar an der Bayero Universität in Kano und dem Polytechnikum Ibadan. Er ist Autor des Buches „Student Unionism in Nigeria: Challenges & Strategies" („Studentischer Korporatismus in Nigeria: Herausforderungen und Strategien") und hat auch wissenschaftliche Artikel in rezensierten Zeitschriften mitverfasst. Seine Forschungsinteressen umfassen Mensch-Computer-Interaktion, Wissensmanagement, Informationsstörungen und Hochschulreformen.

Dr. Juliet C. Alex-Nmecha ist derzeit Leiterin des Lehrstuhls für Bibliotheks- und Informationswissenschaft an der Universität in Port Harcourt im Bundesstaat Rivers in

Nigeria. Sie ist auch die Bundesschatzmeisterin des Nigerianischen Bibliotheksverbands (Nigerian Library Association, NLA) und hat verdienstvoll die Position der Vorsitzenden des Landesvorstands des Rivers NLA bekleidet. Neben ihrer professionellen Lehrtätigkeit, Forschung und Gemeindeentwicklung ist sie Mentorin für junge Bibliothekare, eine starke Befürworterin von Bibliotheksprogrammen und wurde mit Auszeichnungen wie „Exzellenter Bibliothekar" („Best Practicing Librarian") und „Förderung von Bibliotheksleistungen" („Library Services Promotion") geehrt.

Schlüsselworte: Urheberrechte; Informationsüberlastung; Fachleute für Bibliotheks- und Informationswissenschaft; Plagiat; Nigeria

Zusammenfassung: Der Fortschritt in Informations- und Kommunikationstechnologien (ICT) hat weltweit zu einer Zunahme der Informationsgenerierung und -verbreitung geführt. Dies hat zu einer bemerkenswerten Verschiebung von der früheren Informationsexplosion hin zum Konzept der Informationsüberlastung in diesem Zeitalter geführt, das sich durch die zunehmend einfache geistige Eigentumsverletzung in verschiedenen Formen auszeichnet. Untersuchungen haben gezeigt, dass die Raffinesse der Informations- und Kommunikationstechnologien sowie die überwältigende Verfügbarkeit von Informationen dazu geführt haben, dass viele wissenschaftliche Forschungsergebnisse unter dem, Kopieren und Einfügen'-Syndrom und Urheberrechtsverletzungen leiden. Es scheint auch an Literatur darüber zu fehlen, welche Bemühungen von Fachleuten im Bereich Bibliotheks- und Informationswissenschaft unternommen werden, um den Herausforderungen in nigerianischen akademischen Einrichtungen gerecht zu werden. Daher versucht diese Studie, die Aufmerksamkeit auf die Art und Weise zu lenken, wie Fachleute im Bereich Bibliotheks- und Informationswissenschaft mit den Herausforderungen des Plagiats in einer Ära der Informationsüberlastung in nigerianischen akademischen Institutionen umgehen. In der Studie wurde eine phänomenologische Forschungsmethodik unter Verwendung einer qualitativen Methodologie (phenomenological research design of qualitative methodology) angewandt. Dabei wurde ein teilweise strukturierter schriftlicher Fragebogen entwickelt, der den Forschern von den Befragten elektronisch zugeschickt wurde. Die Daten wurden in Textform präsentiert, mit wörtlichen Zitaten, wo notwendig, und die Forschungsergebnisse wurden mithilfe einer thematischen Analyse ausgewertet. Die Ergebnisse der Studie zeigten ein hohes Maß an Plagiat und ein mäßiges Engagement der Fachleute im Bereich Bibliotheks- und Informationswissenschaft bei der Bekämpfung dieser Bedrohung. In der Studie wird empfohlen, Informationskompetenz und akademisches Schreiben als grundlegende Kurse in den Studiengängen der Bibliotheks- und Informationswissenschaft sowie in anderen Disziplinen zu integrieren, um Wissenschaftler mit den erforderlichen Fähigkeiten auszustatten, um qualitativ hochwertige und plagiatfreie wissenschaftliche Arbeiten zu erstellen, insbesondere in Zeiten des Informationsüberflusses.

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Integrating Internet of Things (IoT) into Library and Information Science (LIS) School's Curriculum in Selected Universities in Nigeria

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Abstract: This study examined incorporating the Internet of Things (IoT) into the LIS curriculum in selected LIS schools in Southwest Nigeria. The study population comprised final-year students from the LIS Degree programme in Southwest Nigeria's Library and Information Science Department. A total enumeration of respondents was used for the research. Data generated were analysed using descriptive statistics. Findings revealed that the significant technology-related courses in the curriculum of LIS are basic computer operations, web publishing, document management and computer in libraries. Undergraduates positively perceived LIS curriculum preparedness for the Internet of Things (IoT). The major problems affecting the full implementation of technology-based courses of the LIS curriculum in selected LIS schools are shortage of funds, lack of infrastructure, unreliable power supply, inadequate learning resources and library support. The paper recommended an intervention by the Nigerian government to provide financial help to integrate the Internet of Things (IoT) into LIS schools and develop essential infrastructures that will enhance the hands-on experience for students.

Introduction

The Internet of Things (IoT) is a new cycle based on the Internet and green energy, which allows easy access to information (e.g. open data initiatives, open access and open science). It is also referred to as an approaching thunderstorm with a sweeping pattern of change visible at a distance, approaching at a speed that leaves little time to prepare. Integrating the IoT into the LIS school curriculum provides an invaluable opportunity to prepare future information professionals for the ever-evolving technology landscape. By incorporating IoT principles, applications and implications into the curriculum, library schools can provide students

with the knowledge and skills necessary to harness the transformative power of IoT in the library and information profession (Makori, 2017; Mahdi, Ahmad, Qassim, Natiq, Subhi & Mahmoud, 2021). Therefore, library and information science undergraduates need to be exposed to the requisite skills in the curriculum that will enable them to function in the industrial age. There is also a demand for professionals with a mix of traditional and digital subject expertise. The curriculum and practices of LIS education have been developed to match these new expectations (Hashim & Mokhtar 2012).

The technology infrastructure in LIS schools varies from country to country due to low funding (Rosing, Kemp, Hove & Ross, 2015). Saka (2015) stated that there is no uniform or harmonised curriculum for Nigeria's library and information science schools. Each operated their own curriculum. According to Rosing, Kemp, Hove and Ross (2015), the most pressing current issues in LIS education are preparing LIS students for a new role in rapidly changing job responsibilities, increasing student-centred learning opportunities through well-crafted service learning, practicum, internship, skill acquisition and alternative break opportunities; developing concepts surrounding information technology that not only motivate students to learn today's technology but also enable them to assess, adapt and use it; and developing concepts surrounding information technology that not only help students understand today's technology but also enable them to assess, adapt and use whatever develops in the future.

Curricula in library schools and departments are frequently revised or redesigned to meet job demands and industrial revolutions because the information industry is known to be an early adopter of information technology (Chu, 2016). A curriculum for LIS education often reflects what is available to train librarians and information professionals who will gain the necessary knowledge and abilities to become qualified employees in the field and handle the problems that an ever-changing information society provides. As a result, some library schools have examined the concerns of diverse communities and how LIS education and library training must embrace technological abilities, knowledge and practices (Peters, 2012).

The curriculum and methodologies of LIS education are continually being developed to meet new demands (Hashim and Mokhtar, 2012). The curriculum was at the heart of the reform. Because the information sector is an early adopter of information technology, many library schools and departments have changed or redesigned their courses to match job demands and industrial revolutions. A curriculum for LIS education usually mirrors what is offered to train librarians and information professionals who will acquire the essential knowledge and skills to become qualified personnel in the field and meet the challenges of the ever-changing information society. Challenges include the use of artificial intelligence, robotics, and nanotechnology in the information industry. As a result, some library schools have reassessed the issues of diverse populations and how

LIS education and library training must embrace digital competencies, knowledge and practices (Kumar & Sharma, 2010; Peter, 2012). For instance, between 2014-2016, the University of Pretoria, South Africa, won a Carnegie Grant to train young information professionals in selected African countries on various technological trends shaping the library and information industries.

Additionally, Sivathanu and Pillai (2018) enumerated challenges confronting LIS education variations of the program, which tends to confuse students and presents a challenge to prospective employers, such as a shortage of teaching staff in LIS schools as well as curricula that do not align with the job market reality. The study also lists other challenges such as a lack of relevant information resources, low funding for teaching/learning facilities in LIS schools and departments, and low completion rates and wastage. They recommended a curriculum review to realign it with job markets and collaboration among stakeholders to identify ongoing challenges. While reviewing the curriculum to reflect the changing market requirements, some traditional courses had to give way to new and emerging issues and trends in librarianship. In line with modern trends, LIS education has been re-conceptualised and repositioned to equip graduates with the appropriate attributes to develop and maintain high-quality professional practice in a rapidly changing society (Tumuhairwe, 2013).

However, the effective integration of IoT into the educational system is a complex, multifaceted process that involves not only technology, but also the deliberate effort of all stakeholders in its deployment. The IoT concept has sparsely occurred in the literature on academic libraries since its conception in 2016. However, its components such as the internet of things (IoT), embedded systems, cyber-physical systems, cloud computing, information management, big data, data acquisition/handling and network security, among others, are already accessed and variably applied in academic libraries (Ocholla & Ocholla 2020) and ultimately being taught sparingly in the library schools. In today's context, LIS spells out what information is entailed in interactions with communication technologies and a relationship with cognitive and affective knowledge (Dervin & Nilan 2016). Today's world needs culturally competent institutions that can provide cultural competence guidelines within the library and information science/studies (LIS) profession to promote and develop collections for users, irrespective of their background. Therefore, LIS schools should include technology-based course units in their curricula to fulfil this need. This is because things are changing, and the changes are due to the development of advanced technology that replaces the human workforce with automation, artificial intelligence (AI) and robotics (Tella, 2020). Library and information science undergraduates need to be exposed to the requisite skills to function in the 4th industrial age of the curriculum. Additionally, there is a demand for professionals with traditional and digital subject-knowledge skills in the present era, hence the need to find out if IOT has been infused into the curriculum of library schools in Nigeria. The choice of the

geographical location of the study, South-West, Nigeria, according to the National Universities Commission has the highest number of LIS graduates annually, hence the result can be generalised.

Statement of the Problem

Diversity in LIS education is a crucial concern in the LIS curriculum. This must be sufficient to enable LIS students to design and offer inclusive services to various people in the information age (Edogbo, 2018). It is unarguable that technological and other societal changes have substantially impacted Library and Information Science (LIS) education worldwide. Of all the developments in LIS education, LIS curricula are the most prominent and observable (Peter, 2017). LIS curricula strive to prepare students for leadership in the new age, and are often reviewed so that the graduates are equipped with what they need to succeed and thrive after obtaining their degrees in LIS (Itani, Jaramillo & Chonko, 2019). The rapid development of technology in all countries has also changed individual and social life. Consequently, the integration of IOT into the LIS curriculum will provide a collaborative and content-creating environment for both the teachers and the students, thus providing a collaborative approach to learning. However, in reality, can we say that the library schools have actually incorporated IOT into their curriculum? Hence, there is a need to examine the integration of internet of things (IoT) into library and information science (LIS) School's Curriculum in Selected Universities in Nigeria.

Objectives of the Study

The following objectives guided this study:
1. To identify the various technology-related courses in the curriculum of the selected LIS schools in Nigeria that reflects IoT;
2. To examine undergraduates' perception of LIS curriculum preparedness for the LoT industrial revolution in selected LIS schools in Nigeria;
3. To find the problems affecting the full implementation of the Internet of Things (IoT) -based courses in selected LIS schools in Nigeria.

Research Questions

1. What are the various technology-related courses in the curriculum of the selected LIS schools in Nigeria that reflect the Internet of Things (IoT)?
2. What is the undergraduates' perception of LIS curriculum preparedness for the IoT in selected LIS schools in Southwest Nigeria?

3. What problems hamper the incorporation of IoT into the LIS curriculum in the selected LIS schools in Southwest Nigeria?

Literature Review

It is unarguable that technological and other societal changes have substantially impacted Library and Information Science (LIS) education worldwide. Literature has revealed that the most evident and measurable changes in LIS education are traceable to curricula and academic library services (Chu, 2016). For instance, Ocholla and Ocholla's (2020) study of a content analysis of websites of 26 public universities' libraries in South Africa found out that some academic libraries are already responding to the 4th industrial revolution by providing services such as availability of WiFi, 24/7 study areas, research commons, group study areas, maker spaces, borrowing ICTs (e.g. laptops), e-Resources (e.g. eBooks, databases, etc.), e-Catalogue, digital scholarship (including institutional repositories), research data services (e.g. RDS, RDM), open scholarship, information literacy, research information services, reference management tools (e.g., Endnote), libguides, tutorials (video) and Ask-a-librarian.

The relevance and sustenance of library and information science education today will depend largely on the quality of faculty and students and their ability to use exponential technologies such as robotics, nanotechnology, artificial intelligence and quantum computers, all of which are products of the IoT that meet users' information needs. The argument was corroborated in a study on curriculum development of LIS study programme in the 4th industrial age; the findings revealed that students should have the knowledge creation, information literacy, information ethics, information business, visual information design, IT-Based Entrepreneurship, digitalisation, Information Retrieval, web design, collection management, database management, library automation, graphic and electronic publishing management, knowledge management, Organizational Communication, Library Public Relations, Writing Scientific Papers, Multimedia Communication and Visual Information Design (Marlini, 2020).

According to Oparah (2016), newer LIS schools appear to follow older schools' modified curricula. Examining these schools' curricula, some emphasise library science courses, while others struggle to balance library science and information communication technology. Ocholla, Dorner and Britz (2013) succinctly defined the curriculum as a fundamental part of any educational or training program to provide not only a list of the courses or modules offered in each educational program but also meaningful information on the content, objectives, learning outcomes, method and duration of the course. According to Lukeman and Njoku (2014), library and information science (LIS) education can only be meaningfully considered in general education and its cultural milieu.

Peretomode (2004), cited in Ossai and Nwabuwe (2023), observed that Nigeria, like other countries, recognised education as the major instrument affecting national development. According to Singh & Chander (2014), the allure of modern communication technology has persuaded many librarian educators to focus on it and disregard elements of librarianship that do not fit within these technological constraints. The "lure on modern communication technologies" has performed a significant role in LIS education. According to Majanja (2020), most LIS schools have built relevant ICT modules and combined ICT knowledge into standard courses, indicating significant progress in infusing ICT expertise. Singh & Chander (2014) found that the gap between what is taught in many library and information science schools (LIS) and what is practiced in most libraries is significant and widening. When evaluating the study's findings, Johnson (2011) found a misalignment between job expectations and the aims of library schools. When looking at the findings of surveys of library schools in the Caribbean and Latin America, Johnson (2011) observed some misalignment between employer expectations and library school priorities, even though library schools appeared to be achieving employers' major needs. According to Kim, Lee, Chun & Benbasat (2014), the primary areas for librarians are knowledge organisation and retrieval, promotion of culture and knowledge, knowledge of literature, library organisation and management and information technology. Similarly, Mortezaie and Naghshineh (2012) undertook a comparative study of LIS graduate courses in the UK, the USA, India and Iran. They discovered that the efficiency of the courses offered is related to the state of the information sector in each country and that the gap between LIS education in industrialised and developing nations is expanding. Many factors are at play in the LIS curriculum (Sivathanu & Pillai, 2018). While it is possible to anticipate that professional body accreditation will lead to some consistency in fundamental educational areas that match employers' requirements at an international level, this is not always the case. According to Singh & Chander (2014), the ALA accreditation process is not based on national criteria.

According to Abiola (2022), some of the challenges inhibiting the full exploitation of IoT in academic libraries in Nigeria are security/privacy issues, technical know-how, lack of standardisation, erratic power supply as a result of high cost of maintaining alternate power supply. Similarly, in the LIS curricula, challenges such as inadequate infrastructure for teaching and learning, outdated/changing curricula, insufficient human and financial resources, inadequate ICT oriented practical work, lack of access to critical information resources for learning and poor information communication among key participants in library schools have debarred the full implantation of IoT in the curriculum in Nigerian library schools.

Methodology

This study is a survey of an ex-post facto design. The study population was final-year undergraduates in the Department of Library and Information Science at Tai Solarin University of Education, Adeleke University, University of Ibadan and Lead City University. These schools were selected in southwest Nigeria, because they had been established for at least ten years or more. The population consisted of three hundred and fifty (350) undergraduates. The total enumeration technique was adopted to capture all the final-year undergraduates. Out of the 350 copies of the questionnaire administered to the students, only three hundred and thirty-eight (338) were retrieved. A total of 338 copies of a questionnaire were used for the study. The instrument had four sections: A – D. Section A focused on respondents' biodata, that is Age, Institution, and Gender. Sections B, C and D had items that gathered responses on information technology courses in the curriculum, undergraduates' perceptions of the curriculum and the challenges, and the research questions were analysed using frequency count and percentages.

Results

Research Question 1: What are the various technology-related courses in the curriculum of the selected LIS schools in Nigeria that reflect Internet of Things (IoT)?

Table 1: Various technology-related courses in the curriculum of LIS

Technology-related courses in the LIS curriculum	Frequency	Percentage(%)
Basic computer operations	212	62.7
Publishing	195	57.7
Web document management	193	57.1
Computer in libraries	174	51.5
Introduction to a database management system	164	48.5
Computer and data processing	159	47.0
Multimedia resource	156	46.2
Information network	155	45.9
Internet Information Resources	150	44.4
Computer application to library process	140	41.4
Information and development with technology	140	41.4
Information technology	140	41.4
Automation and Information centre	126	37.3

Computer system and Data processing	125	37.0
Introduction to Computer	121	35.8
Information structure and system	121	35.8
Information science and modern technology	120	35.5
Website design	113	33.4
Management of electronic resources	112	33.1
Digital libraries and preservation	112	33.1
Multimedia application in libraries and information services	112	33.1
Contemporary technology libraries	97	28.7
Introduction to information science	92	27.2
Database management	89	26.3
Information retrieval technologies	89	26.3
Multimedia librarianship	84	24.9
Information systems and networks	80	23.7
ICT in libraries and information centres	80	23.7
Multimedia information resources	79	23.4

The results in Table 1 revealed that the prominent technology-related courses in the curriculum as affirmed by the majority of the respondents are Basic computer operations 212(62.7%), Web publishing 195(57.7%), Web document management 193(57.1%) and computer in libraries 174(51.5%), Hence, the major technology-related courses in the curriculum of the selected LIS schools are basic computer operations, web publishing, web document management and computer in libraries.

Research Question Two: What is the undergraduates' perception of LIS curriculum preparedness for the IoT in selected LIS schools in South-west Nigeria?

Table 2: Undergraduates' perception of LIS curriculum Preparedness

Perception	SA	A	D	SD
Experience gained in the information technology-related course will prepare me for employment in the library and information science field in future	170(50.3%)	142(42.0%)	5(1.5%)	21(6.2%)

Perception	SA	A	D	SD
Generally, my ICT skills have improved greatly after taking information technology-related courses	155(45.9%)	158(46.7%)	10(3.0%)	15(4.4%)
I believe I have a competitive advantage over people not exposed to technology-based courses	153(45.3%)	133(39.35)	31(9.2%)	21(6.2%)
My exposure to LIS schools has adequately prepared me for the 21st-century library	149(44.1%)	174(51.5%)	15(4.4%)	-
I can now assist library users in locating electronic information resources after being exposed to information technology-related course	147(43.5%)	156(46.2%)	30(8.9%)	5(1.5%)
I can now assist library users in locating relevant materials in the OPAC	134(39.6%)	189(55.9%)	-	15(4.4%)
Before taking the technology-based courses, I couldn't use software, but now I can work with library software	134(39.6%)	172(50.9%)	21(6.2%)	11(3.3%)
I can work in an automated library as a result of my exposure to technology-based courses	124(36.7%)	199(58.9%)	5(1.5%)	10(3.0%)

Perception	SA	A	D	SD
I can now design a website to a great extent after taking information technology-related courses	123(36.4%)	179(53.0%)	20(5.9%)	16(4.7%)
I can now use library software to manage the collection of a library	119(35.2%)	183(54.1%)	25(7.4%)	11(3.3%)
I can effectively digitised library collections if such opportunities present itself in the future	99(29.3%)	156(46.2%)	51(15.1%)	32(9.5%)
I don't have a flair for IT based courses	74(21.9%)	126(37.3%)	92(27.2%)	46(13.6%)
I strongly feel the curriculum has not prepared me to function effectively as a librarian in the nearest future	68(20.1%)	114(33.7%0	86(25.4%)	70(20.7%)
I believe LIS schools are wasting their time introducing IT courses	38(11.2%)	65(19.2%)	114(33.7%0	121(35.8%)

Results in Table 2 reveal that the majority, 170(50.3%), of the respondents affirmed that the experience gained in the information technology-related course would prepare them for employment in the library and information science fields. In comparison, 21(6.2%) respondents had a contrasting view. The majority, 155(45.9%), of the respondents affirmed that, generally, ICT skills improved greatly after taking information technology–related courses, while 15(4.4%) of the respondents had a contrary view. The majority, 153(45.3%), of the respondents believed they had a competitive advantage over people not exposed to technology-based courses, while 21(6.2%) had a contrary view. Hence, the major perception of undergraduates towards the LIS curriculum showed that the experience gained in the information technology–related course would prepare them for employment in the library and information science field in the future. Thus, the undergraduates displayed a positive perception of the LIS curriculum.

Research Question 3: What problems hamper incorporating IoT into the LIS curriculum in the selected LIS schools in Southwest Nigeria?

Table 3: Problems affecting the integration of IoT into the LIS curriculum

Challenges	SA	A	D	SD
Shortage of funds	222(65.7%)	91(26.9%)	25(7.4%)	-
Lack of infrastructural facilities	180(53.3%)	126(37.3%)	27(8.0%)	5(1.5%)
Unreliable power supply	175(51.8%)	138(40.8%)	25(7.4%)	-
Inadequate learning resources and library support	140(41.4%)	173(51.2%)	20(5.9%)	5(1.5%)
Inadequate staff and expertise	140(41.4%)	157(46.4%0	41(12.1%)	-
Inadequate time allocated	139(41.1%)	158(46.7%)	31(9.2%)	10(3.0%)
Lack of LIS policy	131(38.8%)	176(52.1%)	21(6.2%)	10(3.0%)
Acute shortage of experienced and capable faculty members	131(38.8%)	155(45.9%)	52(15.4%)	-
Inadequate funding	128(37.9%0	174(51.5%)	30(8.9%)	6(1.8%)
Uniformity in nomenclature	125(37.0%)	147(43.5%)	56(16.6%)	10(3.0%)
Over-enrolment	124(36.7%)	120(35.5%)	82(24.3%)	12(3.6%)
Medium of instruction and employability of LIS students	121(35.8%)	142(42.0%)	70(20.7%)	5(1.5%)
Inadequate teaching techniques and internships	119(35.2%)	166(49.1%)	53(15.7%)	-
Changing the nature of ICT	114(33.7%)	154(45.6%)	47(13.9%)	23(6.8%)
Irrelevant texts on information technology	113(33.4%)	182(53.8%)	26(7.7%)	17(5.0%)
LIS departments lack consensus on the duration of courses	95(28.1%)	172(50.9%)	61(18.0%)	10(3.0%)
Inadequate teaching method	93(27.5%)	187(55.3%)	41(12.1%)	17(5.0%)

The results in Table 3 reveal that the majority, 222(65.7%), of the respondents agreed that the shortage of funds affects the incorporation of IoT into the LIS curriculum. In addition, 180(53.3%) of the respondents agreed that a lack of infrastructure performs a significant role in it. While 93(27.5%) respondents agreed that inadequate teaching methods affected the LIS curriculum's IoT integration, 17(5.0%) respondents had a contrary view. Hence, the major problems affecting the incorporation of IoT into the LIS curriculum in selected LIS schools are a shortage of funds, lack of infrastructure, unreliable power supply, inadequate learning resources and library support.

Discussion of Findings

The study revealed that the significant technology-related courses in the curriculum of the selected LIS schools are basic computer operations, web publishing, web document management and computers in libraries. This finding is consistent with Oparah's (2016) research, which found no uniform or harmonised curriculum for Nigerian university libraries and information science schools until 2018. According to Oparah (2016), the newer LIS schools appear to follow the older schools' modified curricula. Examining these schools' curricula, some emphasise library science courses, while others struggle to balance library science and information communication technology. This finding is worrisome because less emphasis is being placed on other technology-based courses expected to prepare students for 4IR. The study further showed that the significant perception of undergraduates towards the LIS curriculum is that the experience gained in the information technology-related course prepares them for employment in the library and information science fields in the future (Hashim & Mokhtar, 2012). Thus, undergraduates displayed a positive perception of the LIS curriculum. This position is consistent with Kundak's (2017) study investigating final-year LIS students' motivations for enrolling in the LIS program and their perceptions of the LIS profession and program. The study revealed that employment opportunities and the influence of individuals (mentors, faculty members, family, and friends) were the major factors behind their choice of LIS as a profession.

Similarly, according to Larivière, Sugimoto and Cronin (2012), there is a trend in today's Library and Information Science (LIS) education towards a greater emphasis on information technology (an unavoidable byproduct of huge technical breakthroughs), users' views and multidisciplinary. Cherry, Duff, Singh & Freund (2011) further opined that LIS graduates have new career opportunities as new positions open up in knowledge management information construction (research data management and digital humanities). While LIS education is evolving, arguments over it are becoming more heated. Changes in the structure, breadth and concentration of specific LIS schools/programs necessitate a thorough assessment of the literature on the state of the field and the

data gathered from connected stakeholders (such as employers, LIS students, graduates and professors).

The study showed that the major problems affecting the status of the LIS curriculum in selected schools are a shortage of funds, lack of infrastructure, unreliable power supply, inadequate learning resources and library support. This finding is comparable to that of David-West (2021), who asserted that new trends, as a result of the fourth Industrial Revolution era worldwide, have created significant challenges for library and information science curriculum in Nigeria. Some of the major issues facing library schools in Nigeria include inadequate infrastructure, outdated/changing curricula, insufficient human and financial resources, a lack of access to necessary information resources for learning and poor information communication among key players in library schools.

Conclusion

Based on the findings of this study, it was concluded that the significant technology-related courses in the curriculum of LIS are basic computer operations, web publishing, web document management and computers in libraries. Undergraduates displayed a positive perception of the LIS curriculum; that is they believed that experience gained in the information technology-related course would prepare them for employment in the library and information science fields. Additionally, their ICT skills significantly improved after taking information technology-related courses. Moreover, the major problems affecting the status of the LIS curriculum in selected schools are a shortage of funds, lack of infrastructure, unreliable power supply, inadequate learning resources and library support.

Recommendations

Based on the findings of this study the following recommendations were suggested

1. LIS curricula must be overhauled to reflect more of Internet of Things in a rapidly changing information society.
2. The existing faculty members should be trained to cope with the new requirements of LIS schools. Nigerian government should come forward through its agents to provide financial help to LIS schools to develop essential infrastructure to offer hands-on experiences to students.
3. The National University Commission and Librarians Registration Council of Nigeria should harmonise LIS curriculum benchmarks in line with global practices to prepare LIS graduates for best practices in the 21st century.

4. Highly skilful technology-related information science courses can run through two semesters in each session to enable all aspects of the course to be treated sufficiently and should be made compulsory for the undergraduate in the LIS curriculum.
5. LIS schools should share a uniform curriculum with the same information science components that will serve as a guide to students

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Włączenie Internetu rzeczy (Internet of Things – IoT) do curriculum w nauczaniu Bibliotekoznastwa i Informacji Naukowej w wybranych Uniwersytetach w Nigerii

Anuoluwa Awodoyin jest starszym wykładowcą i pełniącą obowiązki kierownika wydziału w Departamencie Bibliotekoznawstwa i Informacji Naukowej, Tai Solarin University of Education, Ijagun, Nigeria. Dr Awodoyin posiada tytuł licencjata w dziedzinie zarządzania zasobami informacyjnymi (Uniwersytet Babcock, Nigeria), magistra bibliotekoznawstwa i informacji (Uniwersytet Ibadan, Nigeria) oraz doktora bibliotekoznawstwa i informacji naukowej (Uniwersytet Ilorin, Nigeria). Dr Awodoyin uczy zarówno studentów studiów licencjackich, jak i podyplomowych i publikowała zarówno w lokalnych, jak i międzynarodowych placówkach badawczych na temat współczesnych problemów w bibliotekoznawstwie i informatyce. Jest również dwukrotną laureatką grantu University of Pretoria, Department of Information Science South-Africa Carnegie Funded dla młodych specjalistów w dziedzinie bibliotekoznawstwa i informatyki w Afryce w 2014 i 2019 roku. Jest również laureatką stypendium CODATA-RDA School of Research Data Science, RPA w 2021 r. Dr Awodoyin jest certyfikowaną bibliotekarką w Nigerii, członkinią National Association of Library and Information Science Educators (NALISE) oraz Association for Information Science and Technology (ASIST). Jej zainteresowania badawcze to eduka-

cja odnośnie do. bibliotekarstwa i technologii informacyjnych, technologie informacyjne oraz usługi użytkowe i referencyjne.

Olatokunbo Okiki jest bibliotekarzem na Uniwersytecie w Lagos w Nigerii. Obecnie jest kierownikiem Działu Automatyki w Bibliotece Uniwersytetu w Lagos; jednostki koordynującej infrastrukturę ICT i elektroniczne zasoby informacyjne. Pełni również funkcję koordynatora Repozytorium Instytucjonalnego (IR). Dr Okiki uzyskał tytuł licencjata (Hon), MLS i doktora na prestiżowym Uniwersytecie w Ibadanie w Nigerii. Jego zainteresowania badawcze obejmują między innymi umiejętności korzystania z informacji, struktury usług informacyjnych, procesy digitalizacji, zastosowanie/wdrażanie ICT w bibliotece i zarządzanie wiedzą. Jest aktywnym członkiem Nigerian Library Association (NLA) Lagos State Chapter oraz członkiem komitetu uniwersyteckiego ds. webometrii, Servicom, Environmental Evidence Synthesis, Knowledge Translation (EESKT) i Open Educational Resources. Jest autorem kilku artykułów w renomowanych czasopismach lokalnych i międzynarodowych. Prezentował również ustnie swoje badania na konferencjach zarówno lokalnych, jak i międzynarodowych.

Słowa kluczowe: program nauczania odnośnie do bibliotekarstwa i technologii informacyjnych; technologie; Internet rzeczy (IoT); szkoły bibliotekarstwa i technologii informacyjnych; Nigeria

Streszczenie: W badaniu tym zbadano włączenie Internetu rzeczy (IoT) do programu nauczania LIS w wybranych szkołach bibliotekarstwa i technologii informacyjnych w południowo-zachodniej Nigerii. Populacja badana składała się ze studentów ostatniego roku z programu bibliotekarstwa i technologii informacyjnych w Departamencie Bibliotek i Informacji Naukowej w południowo-zachodniej Nigerii. Do badania wykorzystano całkowite wyliczenie respondentów. Wygenerowane dane analizowano za pomocą statystyk opisowych. Wyniki ujawniły, że znaczące kursy związane z technologią w programie nauczania bibliotekarstwa i technologii informacyjnych to podstawowe operacje komputerowe, publikowanie w Internecie, zarządzanie dokumentami i komputer w bibliotekach. Studenci pozytywnie postrzegali przygotowanie programu nauczania bibliotekarstwa i technologii informacyjnych do Internetu rzeczy (IoT). Główne problemy wpływające na pełne wdrożenie opartych na technologii kursów programu nauczania bibliotekarstwa i technologii informacyjnych w wybranych szkołach bibliotekarstwa i technologii informacyjnych to brak funduszy, brak infrastruktury, zawodne zasilanie, niewystarczające zasoby edukacyjne i wsparcie biblioteczne. W dokumencie zalecono interwencję nigeryjskiego rządu w celu zapewnienia pomocy finansowej w celu zintegrowania Internetu rzeczy (IoT) ze szkołami bibliotekarstwa i technologii informacyjnych i opracowania niezbędnej infrastruktury, która zwiększy praktyczne doświadczenie uczniów.

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Die Integration des Internet of Things (IoT) in das Lehrprogramm für Bibliotheks- und Informationswissenschaft an ausgewählten Universitäten in Nigeria

Anuoluwa Awodoyin ist eine erfahrene Dozentin mit einem Doktorgrad. Sie ist Leiterin des Lehrstuhls für Bibliotheks- und Informationswissenschaft an der Tai Solarin Pädagogischen Universität in Ijagun, Nigeria. Dr. Awodoyin hat einen Bachelorabschluss in Informationsressourcenmanagement von der Babcock Universität in Nigeria, einen Masterabschluss in Bibliotheks- und Informationswissenschaft von der Universität Ibadan in Nigeria sowie einen Doktortitel in Bibliotheks- und Informationswissenschaft von der Universität Ilorin in Nigeria. Dr. Awodoyin unterrichtet sowohl Bachelor- als auch Postgraduiertenstudierende und veröffentlicht in lokalen und internationalen Forschungseinrichtungen zu zeitgenössischen Themen im Bereich Bibliotheks- und Informationswissenschaft. Sie wurde zweimal vom South-Africa Carnegie Funded mit Stipendien ausgezeichnet und war in den Jahren 2014 und 2019 im Rahmen von Stipendien für junge Fachleute im Bereich Bibliotheks- und Informationswissenschaft am Lehrstuhl für Bibliotheks- und Informationswissenschaft der Pretoria Universität in Südafrika tätig. Dr. Awodoyin ist auch Stipendiatin der CODATA-RDA School of Research Data Science in Südafrika im Jahr 2021. Sie ist eine zertifizierte Bibliothekarin in Nigeria und Mitglied des Nationalverbands der Bibliotheks-

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Olatokunbo Okiki ist Bibliothekar an der Universität Lagos in Nigeria. Derzeit ist er der Leiter der Abteilung für Bibliotheksautomatisierung an der Universitätsbibliothek in Lagos, einer Einheit, die die Telekommunikationsinfrastruktur und elektronische Informationsressourcen koordiniert. Er fungiert auch als Koordinator des Institutionellen Repositoriums (Institutional Repository – IR). Dr. Okiki hat seinen Bachelorabschluss mit Auszeichnung, einen Masterabschluss in Bibliotheks- und Informationswissenschaft sowie einen Doktortitel an der renommierten Universität Ibadan in Nigeria erworben. Seine Forschungsinteressen umfassen nicht nur Informationskompetenz, Strukturen von Informationsdiensten, Digitalisierungsprozesse, Anwendungen von Informations- und Kommunikationstechnologie (ICT) in Bibliotheken und Wissensmanagement. Er ist aktives Mitglied der Niederlassung des Nigerianischen Bibliotheksverbands (Nigerian Library Association, NLA) in Lagos und Mitglied des Universitätsausschusses für Webometrie, der Initiativen Service Compact with All Nigerians (Sevikom), Environmental Evidence Synthesis Knowledge Translation (EESKT) und Open Educational Resources. Dr. Okiki hat auch mehrere Artikel in angesehenen nationalen und internationalen Fachzeitschriften veröffentlicht und präsentierte seine Forschungsergebnisse auf nationalen und internationalen Tagungen.

Schlüsselworte: Lehrprogramm für Bibliotheks- und Informationswissenschaft; Technologien; Internet der Dinge (Internet of Things – IoT); Schulen für Bibliotheks- und Informationswissenschaft; Nigeria

Zusammenfassung: In dieser Studie wurde die Integration des Internets der Dinge (Internet of Things – IoT) in den Lehrplan für Bibliotheks- und Informationswissenschaft (BIN) an ausgewählten BIN-Schulen im Südwesten Nigerias untersucht. Die Befragtengruppe umfasste Absolventen des letzten Studienjahres im Fach BIN an den Instituten für Bibliotheks- und Informationswissenschaft im Südwesten Nigerias. Die Gesamtzahl der Befragten wurde in die Untersuchung einbezogen. Die generierten Daten wurden mithilfe deskriptiver Statistiken analysiert. Die Ergebnisse zeigten, dass wichtige technologiebezogene Kurse im Lehrplan für BIN grundlegende Computernutzung, Online-Publishing, Dokumentenmanagement und Computeranwendungen in Bibliotheken umfassten. Die Studierenden bewerteten die Vorbereitung des BIN-Lehrplans auf das Internet der Dinge positiv. Die Hauptprobleme, die die vollständige Umsetzung der technologiebezogenen Kurse im Lehrplan für BIN an den ausgewählten BIN-Schulen beeinflussen, sind finanzielle Engpässe, fehlende Infrastruktur, unzuverlässige Stromversorgung, unzureichende Lehrmittel und bibliothekarische Unterstützung. In dem Artikel wurde empfohlen, dass die Regierung Nigerias eingreifen sollte, um finanzielle Unterstützung für die Integration des Internets der Dinge an BIN-Schulen bereitzustellen und die notwendige Infrastruktur zu entwickeln, um die praktischen Erfahrungen der Schüler zu verbessern.

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Copyright laws and information technology usage as factors influencing information services delivery in university libraries in Edo State, Nigeria

Dr. Tolulope Adenekan is a seasoned administrator who has been fully involved in administration since 2002. She has B.Sc. in secretarial administration obtained in the year 2008, Master of Science in Business Administration specialising in Office and Information Management in 2009, and PhD. in Information Resources Management specialising in Business Information Management at Babcock University, Ilishan, Remo, Nigeria in 2019. She later obtained Master of Science in Information Resources Management Degree in Library and Information Science at Babcock University. Dr. Adenekan has attended a number of training institutes both within and outside of Nigeria. She has over forty-two (42) publications in both local and international reputable journals, as well as chapters in edited books. She is a Fellow of the National Institute of Office Administrators and Information Managers (NIOAIM), a Fellow of the Nigerian Institute of Professional Secretaries, a member of the Nigerian Institute of Management, a member of the Institute of Personality Development

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Abstract: The study examined copyright laws and information technology usage as factors influencing information services delivery in universities in Edo State. The research design employed was a descriptive survey. The population comprised 43 respondents. Considering the controllable size of the population, the total enumeration sampling technique was adopted. The instrument for data collection was a self-structured questionnaire, which was converted to a google online questionnaire form. It was administered to the respondents via the WhatsApp platforms. The data collected were analysed using descriptive statistics. The finding from the study revealed that copyright laws have a significant effect on information service delivery in these institutions. Similarly, it was also revealed that the use of information technology by library staff in information service delivery in universities libraries in Edo State is very high. The study also include recommendations and its limitations.

Introduction

Information service delivery is one of the cardinal objectives of university libraries. The library performs a significant role in ensuring the seamless transmission of information from its source to the recipient and in effectively facilitating the transfer of knowledge from information creator to information user. This responsibility qualifies the library as the engine room of knowledge in the parent in-

stitution. Ifijeh (2010), recognising the central role of libraries within the university ecosystem, noted that university libraries are different from other types of libraries because they cater to the distinctive academic needs of their patrons, including professors, lecturers, postgraduate and undergraduate students. According to Al-abi and Sani (2021), the notion of information service delivery is fundamentally concerned with satisfying the information needs of users in a timely manner and in the right quantity. In this regards, information service delivery must be accurate, timely and relevant to the actual need of the user. This is because access to information is important to users in making critical personal decisions as it affects their cognitive, social and economic needs. Ogoh and Omekwu (2021) aptly capture the essence of information service delivery as that set of activities which entails the creation, storage and dissemination of knowledge, having the ability to enhance an individual's skills, productivity and performance. Libraries offer an array of information services, including current awareness services, literature searches, reference queries, material circulation, weeding, library user education, and access to information resources, among others. However, the quality and extent of information service delivery can be influenced by various factors, notably copyright laws and the utilisation of information technology.

According to Garner (2019), copyright law helps to protect the property right conferred upon authors or creators of intellectual works, in literary or musical form which is expressed in any medium. This right grants exclusive privileges to the holder, such as usage, adaptation, sale or performance. Thus, it safeguards against unauthorised usage without prior consent or legal justification. The prevailing narrative on the purpose of copyright law in Nigeria emphasises the financial rewards ideology, which seeks to secure financial incentives for creators, ultimately encouraging them to produce more works to enrich the society (Bielu, 2021). The primary legislation governing copyright in Nigeria is the Copyright Act of 2022. (hereinafter called "the Act"). The Act provides automatic protection to the rightsholder without any formal registration. Copyright infringement occurs when a person or entity, other than the owner, undertakes any exclusive action on the work without proper consent, authorisation or transfer of rights, either through assignment or testamentary disposition by the owner or as mandated by law. The consequences of copyright infringement vary, depending on its severity. Copyright infringement may attract either criminal or civil liability.

The Act makes allowances for exceptions, which helps to strike a balance between copyright protection and societal beneficial use. These exceptions ensure that copyrighted works remain accessible to members of the public without exposing them to liability. One of such exceptions is fair dealing. This exception, provides the user with a right to use a copyrighted work for: private study, criticism, review or for reporting of current events. Provided proper acknowledgement of the work and its author(s) is maintained. (Oyewunmi, 2019; Adetunji & Okuonghae, 2022). It should be noted that libraries are major purchasers of copyrighted

works and they make these works available to their users. The nature of their services makes them prone to copyright violation. Although, librarians typically seek to prevent copyright infringement of library materials. However, their primary responsibility lies in providing access to information materials rather than enforcing copyright law (Dominic, & Okwu, 2019).

Information Technology (IT) exerts a profound influence on the library ecosystem, with a multitude of information sources published in electronic formats. This has resulted in a paradigm shift from traditional print publications to digital formats, and has significantly transformed the management, processing and utilisation of information (Schmidt, 2007). These developments have empowered librarians to efficiently manage, process and disseminate information, enabling users to access multimedia resources from anywhere in the world. The incorporation of information technology has presented libraries with opportunities to enhance their services. However, the extent to which these opportunities are harnessed varies. Information technology helps to streamline the creation, storage and sharing of digital content. Consequently, this convenience has also raised concerns about copyright infringement, as copyrighted materials can be easily copied, shared and distributed without the explicit permission of the rightful owners. The widespread adoption of information technology among library users and staff has necessitated libraries to embrace IT-based service delivery to cater to the escalating demands of their users (Adenekan & Haliso, 2019). However, given the advances in the use of information technology in the different processes of knowledge management, it could be indicated that the level of information technology usage among library staff could influence information services delivery in libraries in Edo State since many of the services are tied to technology. This further reinforces the need to empirically investigate the relationship between copyright laws, information technology usage and information services delivery in libraries in Edo State. It is on this basis that this study is set out to examine copyright laws and information technology usage as factors influencing information services delivery in University libraries in Edo State.

Statement of Problem

The rapid integration of information technology in Nigeria has brought about an unparalleled surge in the accessibility and availability of information in diverse forms. This advancement has notably enhanced the channels through which individuals in academic settings can meet their information requirements for research, teaching and learning. Consequently, it has performed a crucial role in fostering personal and professional growth. Universities, as key players in the information ecosystem, heavily rely on information to facilitate both learning and research endeavours. Their aim is to impart knowledge that leads to individual self-reliance and to tackle the societal, economic and academic needs of the

larger community. Nonetheless, despite the substantial advantages of information technology, its availability and effectiveness are influenced by a range of factors, encompassing prevailing copyright laws and the adoption of IT. Misuse of copyright laws can result in punitive actions against the offenders. As a result, these laws tend to impose restrictions on how libraries can optimally employ information resources, be it in print or digital forms, to fulfil their responsibilities efficiently.

This study aimed to investigate the extent and degree to which copyright laws and the utilisation of information technology impact the delivery of information services in university libraries within Edo State.

Research Objective

The overall objective of this study is to examine copyright laws and information technology usage as factors influencing information services delivery in libraries in Edo State. Specifically, the study seeks to:
1. Determine the extent to which copyright laws affect information services delivery in university libraries in Edo State;
2. Ascertain the level of information technology usage of the librarians;
3. Identify the different information services delivered in the libraries
4. Find out the challenges facing information services delivery in the libraries.

Research Questions

The study was guided by the following research questions;
1. To what extent do copyright laws affect information services delivery in university libraries in Edo State?
2. What is the level of information technology usage of library staff in university libraries in Edo State?
3. What are the different information services delivered in university libraries in Edo State?
4. What are the challenges facing information services delivery in the libraries?

Review of Related Literature

Okuonghae and Obadare (2019) surveyed information services delivered by libraries in Nigeria. The study adopted the survey type of descriptive research design. The findings revealed that library and information services delivered in Nigeria include: internet access services, research support services, organising makerspace programmes, awareness and sensitisation campaign, readership campaign, computer and entrepreneurial training amongst others. Furthermore,

the study showed that the majority of the library and information services in Nigeria are rendered less often due to the problem of poor funding, epileptic power supply, lack of adequate support from the government, inadequate library infrastructure, poor users' perception of the library and poor reading culture among Nigerians.

In another study, Okuonghae and Modibbo (2021) surveyed library and information services for cultural and educational rebirth in Edo State. The survey type of the descriptive research design was employed. The population of the study comprised librarians from six academic libraries in Edo State. The total enumeration sampling technique was adopted to study the entire 58 librarians. The instrument for data collection was a self-structured questionnaire which was later converted to an online survey questionnaire using SurveyMonkey and it was administered to the respondents via WhatsApp. The data collected were analysed using descriptive statistics. The study revealed that several services such as Selective Dissemination of Information (SDI), research support services and provision of information resources are rendered in the library.

Several studies have been conducted on the influence of copyright law on the provision of information services by libraries. Omoba and Omoba (2009), in their study on the influence of copyright law on the use of information resources, noted that copyright law offers protection to copyright holders. By this legal provision, authors of intellectual works are provided with a conducive environment to promote educational and cultural advancement including the general socio-political development in the nation (Oyewunmi, 2019). Another revelation from the study of Omoba and Omoba (2009) is that a vast majority of information users have sufficient knowledge of copyright law. This view was corroborated by Onoyeyan Awe (2018) who examined the role of librarians in the protection of copyright in Nigeria. It was found that librarians are aware of the provisions of copyright law and take some measures to prevent its infringement. It was recommended, among others, that librarians should be more intentional in ensuring that copyright is not violated in the library by engaging all the available measures to ensure compliance. To ensure compliance, Nworie, Nworie and Nwaigbo (2019) recommended that librarian should document the violation of copyright laws by its users and file complaints against them for copyright infringement. This recommendation may, however, be difficult to practice, because it will discourage users from coming and making use of library materials. Secondly, it can be said that it conflicts with the ultimate goal of librarians which is to ensure access to information. Sambo, Alutu and Aworo (2016) acknowledged that indeed librarians are aware of copyright law. However, they equally noted that the awareness does not make any difference on how they deal with copyrighted materials, especially because they do not have any limit on the amount of photocopies that could be made from published materials.

Isiakpona (2012), in his study of the perception of some students from the University of Ibadan, reported a very high level of awareness of copyright laws by undergraduate students. This means that students in most higher institutions in Nigeria are not ignorant about the purport and essence of copyright law. However, he noted that the knowledge on the specific provisions of the Copyright Act is low. The study also revealed that high cost of copyrighted materials is another major reason for the infringement of copyright laws by the students. Thus, Oguntimehin and Enamudu (2022) opined that the provision of open access resources to users will make information freely accessible. The persistent infringement of copyrighted resources not only curtails the financial gains that authors rightfully deserve, but also hinders their incentive for further research and publication. This situation has the potential to impact negatively on the intellectual community and society as a whole (Oyewunmi in 2019).

According to Raphael, Agada and Tofi (2020), the strict enforcement of copyright law would inherently lead to authors and creators profiting from the use and dissemination of their work, thereby fostering national development and transformation. These scholars further contended that due to the constraints and limitations embedded in the Copyright Act, information professionals might encounter challenges in offering information services within academic libraries. Accordingly to Aswath and Reddy (2012), the concept of "fair use", which permits the copying of copyrighted materials for educational purposes, is one of such exceptions, and it aligns with a progressive approach to copyright. They suggest that, in order to ensure the continuous development of knowledge and advancements in science, creators and authors of copyrighted works should allow users access to the information and ideas within those materials for further research, thus contributing to the societal growth. Consequently, an inflexible copyright legislation could hinder scholarly research.

The recent strides in information technology have significantly facilitated the reproduction, duplication, sharing, or even unauthorised selling of works owned by copyright holders. Ikolo (2020), while acknowledging the role of information technology in the 21st century, averred that there are various information technology tools that presently and continuously provide support to different library services. Omosor (2014) examined the influence of technological advancements on the roles and experiences of librarians operating in academic libraries in Nigeria. The findings of the study reveal that not withstanding the perennial challenges such as insufficient staffing, inadequate training and the lack of proper equipment, the use of IT in academic libraries in Nigeria is the new normal as it has brought about efficiency in information and library service delivery.

Methodology

This study adopted a descriptive survey. The research design was chosen because it enabled the researchers to gather data from the librarians to investigate how copyright laws and information technology usage can influence the delivery of information services in the libraries. Thus, the population of this study comprised 43 librarians from the seven public and private universities' libraries in Edo State. The universities include Ambrose Ali University, Ekpoma; Benson Idahosa University, Benin City; Edo State University, Uzairue; Igbinedion University, Okada; Samuel Adegboyega University, Ogwa;University of Benin, Benin City and Wellspring University, Evbuobanosa. The researchers adopted the entire population as the sample size for the study using the total enumeration technique. This is because the population is of a manageable size, thus conforming to Nworgu's (2015) assertion that the entire population of a research study can be adopted if the population is of a manageable size. The instrument used for gathering data was a self-structured questionnaire. The question examined research objectives 1, 2, 3 and 4, respectively. Questions 1 and 2 were measured using a scale. "Agree" and "disagree" were used to measure questions 3 and 4. Question 3 focused on information services delivered in the libraries. Question 4 focused on the challenges facing information services delivery in the libraries. The structured questionnaire was then converted into a google form. The administration of the survey to the respondents was done through various WhatsApp platforms. This was to facilitate a seamless process of gathering and storage of the required data. A four-week window was given for completing the survey. The data were analysed using descriptive statistics. The benchmark for data analysis is 2.50.

Results and Discussion of Findings

This section presents the results from the data analysis.

Research Question 1: To what extent do copyright laws affect information services delivery in university libraries in Edo State?

Table 1: Extent of copyright law affecting information service delivery

Extent of copyright law affecting information service delivery in university libraries in Edo State	Very High	High	Low	Very Low	Mean (x̄)
Copyright law limits the way I share information to library users	13	21	9	0	3.09
Copyright law limits the number of databases librarians can access to retrieve information to users	10	22	11	0	2.98

Extent of copyright law affecting information service delivery in university libraries in Edo State	Very High	High	Low	Very Low	Mean ($\bar{x}$)
My library does not encourage the use of darkweb	13	17	12	1	2.98
Copyright law limits the way my library explores digital environment (e.g. how a library shares information over a network	13	20	8	2	3.02
Copyright law affects the number of copies and versions of copyrighted information material in the library	12	20	10	1	3.00
Aggregate Mean					3.01
Criterion Mean					**2.50**

The Table reveals that the copyright laws limit the way librarians share information to users ($\bar{x}$ =3.09), limits the number of databases librarians can access to retrieve information to users ($\bar{x}$ =2.98), as well as limit the way libraries explore digital environment (e.g. how a library shares information over a network) ($\bar{x}$ =3.02). The extent to which the institutional library encourages the use of darkweb ($\bar{x}$ =2.98) is high. Given the aggregate mean of 3.01 against the criterion mean of 2.50, it can be said that the extent in which copyright law affect information service delivery in these institutions is very high.

Research Question 2: How information technology usage by librarians from university libraries in Edo State affects information service delivery in Edo State libraries?

Table 2: The level of information technology usage in information service delivery

The level of information technology usage by librarians in university libraries in Edo State	Very High	High	Low	Very Low	Mean ($\bar{x}$)
I share information materials to library users using a computer system	17	21	5	0	3.28
I store information resources on a computer server or system	19	23	1	0	3.42
I answer users' queries using a computer system	13	16	13	1	2.95
Library users are registered electronically	9	16	15	3	2.72

The level of information technology usage by librarians in university libraries in Edo State	Very High	High	Low	Very Low	Mean (x̄)
Library cataloguing information are shared on the OPAC	13	22	8	0	3.12
Cataloguing processes in the library are done online	14	16	13	0	3.02
Circulation activities in the library are managed via the library's management system	11	16	13	3	2.81
Aggregate Mean					3.05
Criterion Mean					**2.50**

Data in Table 2 revealed the level of information technology usage by librarians in universities libraries. According to the table, librarians use a computer system to share information material to users (x̄ = 3.28), information resources are stored in a computer system (x̄ = 3.42), library cataloguing information are shared on OPAC(x̄ = 3.12), cataloguing processes in the library are done online (x̄ = 3.02). The level of use of information technology by library users through electronic registration (x̄ = 2.72) is high. Again, given the aggregate mean of 3.05 against the criterion mean of 2.50, it could be said that the level of use of information technology by librarian in universities libraries in Edo State is very high.

Research Question 3: What are the different information services delivered in university libraries in Edo State?

Table 3: Information services delivered in the libraries.

Information Services Delivered in the libraries	Agree		Disagree		Total
	No.	%	No.	%	
Reference services	36	84%	7	16%	43
Charging and discharging of library materials	32	74%	11	26%	43
Selective dissemination of information services	33	77%	10	23%	43
Reprographic services	23	54%	20	46%	43
Bindery services	19	44%	24	56%	43
User education/ library orientation	37	86%	6	14%	43
Digital library services	35	81%	8	19%	43
Research data management	31	72%	12	28%	43
Research support services	33	77%	10	23%	43

Table 3 presents information on the common library services delivered in these institutions. From the report, reference services (84%), users education/library orientation (86%), digital library services (81%) and selective dissemination of information services (77%) are rated as agreed among the most common services provided by the institutions under study. However, the respondents disagreed that bindery services (56%) are the information service provided in the libraries. The inference in this report is that while bindery services may be undertaken by the libraries of these institutions, it is not among the most dominant services provided by the libraries.

Research Question 4: What are the challenges facing the delivery of information services in the libraries?

Table 4: The challenges facing information services delivery in the libraries.

Challenges facing information services delivery in the libraries	Agree		Disagree		Total
	No.	%	No.	%	
Inadequate power supply	32	74%	11	26%	43
Inadequate funding	37	86%	6	14%	43
Poor ICT skill among staff and users	28	65%	15	35%	43
Inadequate skilled man power	31	72%	12	28%	43
Non existence of training/career development programmes for library staff	28	65%	15	35%	43
Timing of library opening and closing time	1	2%	42	98%	43

As seen in Table 4, the challenges facing information service delivery include inadequate power supply (74%), inadequate funding (86%), poor ICT skill among staff and users (65%), inadequate skilled man power (72%). Similarly, (65%) reported that non existence of training/career development programmes for library staff is a challenge to information service delivery. In addition, (2%) of the respondents indicates that opening and closing times of a library are a challenge facing information delivery in the libraries. From the results in Table 4, it can be inferred that university libraries are faced with numerous challenges in their bid to provide information services to their clients. These challenges include: inadequate power supply, inadequate funding, poor ICT skills among staff and users, inadequate skilled manpower and the non existence of training/career development programmes for library staff.

Discussion

The study also showed that the level at which copyright laws affect information service delivery in these institutions is very high. This finding is in tandem with the view of Onoyeyan and Awe (2018) that librarians are not only aware of the provisions of the copyright laws but have a role to perform in protecting the copyright of the owners. In view of foregoing moral and legal responsibility, copyright law affects the way librarians share library's materials.

The study revealed that the rate at which librarians employ the use of information technology in the discharge of their duties in universities libraries in Edo State is very high. This position is due to the fact that most of these universities in Edo State have accepted IT as part of the tools required in information service delivery. This finding is supported by Omosor (2014) that not withstanding the perennial challenges, the use of IT in academic libraries in Nigeria is the new normal as it has brought about efficiency in information and library service delivery.

Furthermore, the outcome of this study revealed that reference services, users education/library orientation, digital library services and selective dissemination of information services are among the most common service provided in most university libraries in Edo State. Also, the study revealed that inadequate power supply, inadequate funding, poor ICT skills among staff and user, inadequate skilled manpower and non-existence of training/career development programmes for library staff are common challenges confronting information service delivery in these universities. This study is in agreement with the findings of Okuonghae and Modibbo (2021) that epileptic power supply, poor funding and poor understanding and use of emerging technology are common challenges to information service delivery by university libraries. The finding is also supported by a previous study conducted by Okuonghae and Obadare in (2019) that inadequate funding and unstable power supply are notorious challenges hindering libraries information service functions in Nigeria. These challenges make it difficult for universities in Edo State to deliver information services to their numerous users in Edo State, Nigeria.

Conclusion

The provision of information services stands as a fundamental pillar within university libraries. As such, this study successfully unveiled the intricate relationship between information service delivery and the provisions of the Copyright laws, alongside the utilisation of Information Technology by library staff to facilitate essential information provisions. Notably, the study also highlighted persistent challenges that undermine effective information service delivery, encompassing issues like a dearth of adequately skilled personnel and inconsistent power supply. These findings collectively shed light on the multifaceted landscape within which university libraries operate, pointing towards areas of improvement and po-

tential innovation for enhancing information accessibility and support in academic environments.

Recommendation

It is helpful to recommend the following, given the findings from the study:
1. The staff of these institution should endeavour to continually observe and uphold the dictates of the copyright laws, as doing so will ensure that the rights of authors are preserved. This will in turn enhance the quality and quantity of information resources in Edo State and beyond.
2. Library management should seek ways of addressing some of the perennial challenges facing libraries in information service delivery. For instance, management may focus on creating alternative sources of funds to help them meet their financial needs.

Limitation of the study

The study is not without its limitations. First, the study restricted itself to librarians. The study elicited limited responses from only 43 librarians. In addition, the study is limited in its use of a four-point scale. Furthermore, it should be noted that social desirability bias on the part of the respondents could have influenced the manner in which respondents reacted to items in Table 1 and Table 2.

Suggestions for further studies

In view of the limitation highlighted in this study, it is suggested that future research should consider other information professionals in Nigeria. Apart from librarians, other information professionals include archivists, records managers, knowledge managers, information analysts, data scientists, metadata specialists, information consultants and information system developers. Subsequent studies should consider employing a larger geographical area and population size. In addition, further studies should consider the use of a wider scale to offer respondents more flexibility and greater freedom to respond to the questions asked.

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Prawo autorskie i wykorzystanie technologii informatycznych jako czynniki wpływające na usługi dostarczania informacji na uniwersytetach w Edo State

Dr Tolulope Adenekan jest doświadczoną administratorką, która jest w pełni za-angażowana w administrację od 2002 roku. W 2008 r. zdobyła tytuł B.Sc. w administracji sekretariatu, w 2009 r. tytuł magistra administracji biznesowej specjalizującej się w zarządzaniu biurem i informacją, a w 2019 r. doktorat z zarządzania zasobami informacyjnymi w zakresie zarządzania informacją biznesową na Uniwersytecie Babcock, Ilishan, Remo, Nigeria. Następnie uzyskała tytuł magistra zarządzania zasobami informacyjnymi w dziedzinie bibliotekoznawstwa i informacji naukowej na Uniwersytecie Babcock. Dr Adenekan uczestniczyła w wielu instytutach szkoleniowych zarówno w Nigerii, jak i poza nią. Ma na koncie ponad czterdzieści dwie (42) publikacje zarówno w lokalnych, jak i międzynarodowych renomowanych czasopismach, a także rozdziały w edytowanych książkach. Jest członkinią National Institute of Office Administrators and Information Managers (NIOAIM), członkinią Nigerian Institute of Professional Secretaries, członkinią Nigerian Institute of Management, członkinią Institute of Personality Development and Customer Relationship Management, członkinią Academy of Management w Nowym Jorku, członkinią British Academy of Management w Londynie, członkinią stowarzyszoną Chartered Institute of

Personnel Management oraz członkinią Nigerian Library Association (Oyo State Chapter). Dr Adenekan pracuje obecnie jako starszy wykładowca w Departamencie Zarządzania Informacją na Lead City University. Jest dyrektorką generalną/ konsultantką zarządzającą Liprorich Consulting Ltd., firmy konsultingowej założonej, aby pomóc ludziom osiągnąć szczyt ich kariery. Jest założycielką i pionierską preseką National Institute of Office Administrators and Information Managers (NIOAIM). Obecnie jest prezeską Stowarzyszenia Absolwentów Uniwersytetu Babcock, Oyo i Osun State Chapter, skarbniczką Stowarzyszenia Absolwentów LCU.

Nosakhare Okuonghae obecnie pełni funkcję dyrektora Biblioteki Prawa na Glorious Vision University w Ogwa, Edo State, Nigeria. Posiada tytuł LL.B w dziedzinie prawa zdobyty na Uniwersytecie Beninu w Benin City i jest bliski ukończenia studiów magisterskich w dziedzinie bibliotekoznawstwa i informacji naukowej (MLIS) na Lead City University w Ibadanie. Nosakhare publikował z powodzeniem w czasopismach lokalnych i międzynarodowych. Pasjonuje się bibliotekarstwem prawniczym, nowymi technologiami, własnością intelektualną i umiejętnością korzystania z informacji. Nosakhare jest członkiem różnych grup zawodowych, w tym Nigerian Bar Association, Nigerian Library Association, British Project Management Professionals i Wikimedia User Group Nigeria.

Słowa kluczowe: Nigeria; prawa autorskie; technologia informacyjna; dostareczanie usług informacyjnych; stan Edo

Abstract: W badaniu zbadano prawa autorskie i wykorzystanie technologii informacyjnych jako czynników wpływających na świadczenie usług informacyjnych na uniwersytetach w stanie Edo. Zaprojektowane badanie wykorzystane w tym studium to projekt ankiety opisowej. Populacja badania obejmowała 43 respondentów. Biorąc pod uwagę możliwą do kontrolowania wielkość grupy, przyjęto technikę całkowitego losowania. Narzędziem do zbierania danych był samodzielnie ustrukturyzowany kwestionariusz, który został przekształcony w kwestionariusz online Google i został podany respondentom za pośrednictwem Whatsaap. Zebrane dane poddano analizie za pomocą statystyki opisowej. Wyniki badania ujawniły, że prawa autorskie mają znaczący wpływ na świadczenie usług informacyjnych w tych instytucjach. Podobnie ujawniono, że wykorzystanie technologii informacyjnych przez pracowników bibliotek w świadczeniu usług informacyjnych w bibliotekach uniwersyteckich w stanie Edo jest bardzo wysokie. Jednak badanie zwróciło uwagę na pewne szczególne wyzwania wpływające na świadczenie usług informacyjnych w tych instytucjach. Zawierają: niewystarczające zasilanie, niewystarczające finansowanie, słabe umiejętności w zakresie technologii informacyjno-komunikacyjnych (ICT) wśród użytkowników, niewystarczające zasoby wykwalifikowanej siły roboczej oraz brak programów szkoleń/rozwoju kariery dla pracowników bibliotek.

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Das Urheberrecht und die Nutzung von Informationstechnologien als Faktoren, die die Erbringung von Informationsdiensten in Universitätsbibliotheken im Bundesstaat Edo, Nigeria, beeinflussen

Dr. Tolulope Adenekan ist eine erfahrene Verwaltungsmitarbeiterin, die sich seit 2002 engagiert dieser Tätigkeit widmet. Im Jahr 2008 erlangte sie ihren Bachelorabschluss in Sekretariatsverwaltung an der Babcock Universität (Ilishan, Remo, Nigeria), gefolgt von einem Masterabschluss in Business Administration mit Schwerpunkt Büro- und Informationsmanagement im darauffolgenden Jahr. Im Jahr 2019 verteidigte sie erfolgreich ihre Doktorarbeit in Informationsressourcenmanagement mit Schwerpunkt auf Business Informationsmanagement an derselben Universität. Später erwarb sie einen Masterabschluss in Informationsressourcenmanagement im Bereich Bibliotheks- und Informationswissenschaft an der Babcock Universität. Dr. Adenekan besuchte zahlreiche Schulungsinstitute sowohl in Nigeria als auch im Ausland. Sie hat nicht mehr als zweiundvierzig (42) Veröffentlichungen in renommierten lokalen und internationalen Fachzeitschriften sowie Kapitel in herausgegebenen Büchern veröffentlicht. Sie ist unter anderem Stipendiatin der nationalen Institute: National Institute of Office Administrators and Information Managers (NIOAIM)

und Nigerian Institute of Professional Secretaries, Mitglied der Institute und Akademien: Nigerian Institute of Management, Institute of Personality Development and Customer Relationship Management, Academy of Management in New York, British Academy of Management in London, Chartered Institute of Personnel Management (als assoziiertes Mitglied) und Mitglied des Nigerianischen Bibliotheksverbands (Nigerian Library Association, Oyo State Chapter). Dr. Adenekan arbeitet derzeit als Seniordozentin am Institut für Informationsmanagement an der Lead City Universität. Sie ist auch die Geschäftsführerin/Geschäftsberaterin von Liprorich Consulting Ltd., einem Beratungsunternehmen im Bereich Information, das gegründet wurde, um Menschen bei der Erreichung ihrer Karriereziele zu unterstützen. Sie ist die Gründerin und erste Präsidentin des National Institute of Office Administrators and Information Managers (NIOAIM). Darüber hinaus ist sie die Vorsitzende des Alumni-Vereins der Babcock Universität für die Bundesstaaten Oyo und Osun (Babcock University Alumni Association, Oyo and Osun State Chapter), die Schatzmeisterin des Alumni-Vereins der Lead City Universität (Lead City University Alumni Association) und eine gläubige Christin.

Nosakhare Okuonghae bekleidet derzeit die Position des Leiters der Juristischen Bibliothek an der Glorious Vision Universität in Ogwa im Bundesstaat Edo, Nigeria. Er hat seinen Bachelorabschluss in Rechtswissenschaften an der Benin Universität (Benin City, Nigeria) erworben und absolviert derzeit ein Masterstudium in Bibliotheks- und Informationswissenschaft an der Lead City Universität in Ibadan. Nosakhare hat in lokalen und internationalen Zeitschriften veröffentlicht. Er ist ein leidenschaftlicher Befürworter für juristische Bibliothekswissenschaft, neue Technologien, geistiges Eigentum, Informationskompetenz usw. Nosakhare ist Mitglied verschiedener beruflicher Vereinigungen, darunter der Nigerianischen Anwaltskammer (Nigerian Bar Association), des Nigerianischen Bibliotheksverbands (Nigerian Library Association), der Britischen Fachleute zum Projektmanagement (British Project Management Professionals) und der Gruppe der Wikimedia-Nutzer Nigeria (Wikimedia User Group Nigeria).

Schlüsselworte: Nigeria; Urheberrechte; Informationstechnologie; Bereitstellung von Informationsdiensten; Bundesstaat Edo

Zusammenfassung: In der Studie wurden Urheberrechte und die Nutzung von Informationstechnologien als Einflussfaktoren auf die Erbringung von Informationsdienstleistungen an Universitäten im Bundesstaat Edo untersucht. Die angewandte Forschungsmethode in dieser Studie war eine deskriptive Umfrage. Die Befragtengruppe umfasste 43 Teilnehmer. Angesichts der kontrollierbaren Gruppengröße wurde die Methode des vollständigen Zufalls ausgewählt. Das Instrument zur Datensammlung war ein strukturierter Fragebogen, der in einen Online-Fragebogen auf Google umgewandelt und den Befragten über WhatsApp zur Verfügung gestellt wurde. Die gesammelten Daten wurden mittels deskriptiver Statistik analysiert. Die Ergebnisse der Studie zeigten, dass Urheberrechte einen signifikanten Einfluss auf die Erbringung von Informationsdienstleistungen in diesen Einrichtungen haben. Ebenso wurde festgestellt, dass die Nutzung von Informationstech-

nologien durch Bibliotheksmitarbeiter bei der Erbringung von Informationsdienstleistungen in den Universitätsbibliotheken im Bundesstaat Edo sehr hoch ist. Die Studie hat jedoch bestimmte spezielle Herausforderungen identifiziert, die sich auf die Erbringung von Informationsdienstleistungen in diesen Einrichtungen auswirken. Dazu gehören unzureichende Stromversorgung, unzureichende Finanzierung, geringe Kenntnisse in Informations- und Kommunikationstechnologien (ICT) bei den Nutzern, unzureichende qualifizierte Arbeitskräfte und ein Mangel an Schulungs- und Karriereentwicklungsprogrammen für Bibliotheksmitarbeiter.

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Máté Tóth, A könyvtárak társadalmi szerepei empirikus kutatási adatok tükrében, Szentendre, Hamvas Béla Pest Megyei Könyvtár 2022, ss. 193 ISBN 978-963-7521-91-1

Dóra Szabó is a PhD student at the Doctoral Program on Educational and Cultural Sciences at the University of Debrecen (Hungary). She graduated in 2020 as a Teacher of German language and culture and a Teacher of Library and Information Science. During her university years, she began discovering the Information and Communication Technologies (ICT), digital competence and digital literacy of future teachers based on online information, as well as fake news. Her research field focuses on future teachers and their digital attitude, digital education skills. The main question is what kind of impact fake news and influencers have on education.

Keywords: library; legitimation; social role; Hungary

Abstract: The article is a discussion of the Hungarian book by Máté Tóth, a researcher and librarian in Hungary: "Social Roles of Libraries in the Light of empirical research data" (Szentendre, Hamvas Béla Pest Megyei Könyvtár, 2022), in which he draws attention to the social roles of libraries. The author substantiates the raison of this role with his empirical research. The book is a broad overview of one of the most exciting and much-discussed matters of today's Hungarian culture, the world and role of reading, books, the press, elec-

tronic media, mobile phones, the Internet, and comprehensively Hungarian reading culture. The author attempts to prove the legitimacy and social role of libraries based on the statistics, library sociology measurements and empirical research of recent decades.

Máté Tóth's volume covers an area that is closely related to education and general literacy; functional illiteracy, compulsory reading, digital literacy, media are all recurring themes in the book. However, the author does not start with this but discusses the issue of the right to exist of libraries and the librarian profession in the introduction. In the information society of the 21st century, we all may wonder when the digital revolution, artificial intelligence, will defeat libraries or if it can even overcome the services and experiences provided by libraries. We can read quotes from several articles in which librarianship and the needlessness of the library are highlighted, thus Máté Tóth draws the attention of the reader to it but, fortunately, their important role is aligned.

The author attempts to prove the legitimacy and social role of libraries based on the statistics, library sociology measurements and empirical research of recent decades. For this, four main sources (three domestic and one international) are designated:

- data from the National Széchényi Library,
- Cultural Statistics data,
- Metropolitan Ervin Szabó Library, My library project,
- ALMPUB international project.

In the book's first part, we can read a broad overview of the literature on the social situation, place and role of the library and the librarian profession. The author lists domestic and international empirical research and comparisons in which his own previous data collection, analysis and empirical research are also published, providing the reader with a comprehensive picture. From the international comparisons, I would highlight the differences between Hungary and the Scandinavian countries. While the proportion of regular library users in our country is 12-15%, in the Nordic countries it is 60-80%, which may be a surprising figure for laymen, since we are talking about more developed nations; In the case of Finland, Norway, Denmark or Iceland, development entails state-of-the-art libraries and services (which I myself have experienced in a public library in Oslo), which cannot necessarily be said about our country. It is also clear from international research that the library's role as a community space is getting increasingly prominent.

It can be regarded as a curiosity that the author refers to measurements that took place from the 1960s, from which both diachronic and synchronic images emerge on the topics of library membership, library use, library members, but reading, media usage habits, book buying, and home book collection also come to the fore. All of this is presented in the light of library use, mostly chrono-

logically, differentiated by social strata, by settlement, by generations, with ta-
bles and extensive data. The author refutes many stereotypes in his work. It is
not true that the spread and use of the Internet would make the use of libraries
redundant, as people who live an active online life often become library users.
Digital competence and critical thinking are closely related to this fact; fake news,
advertisements and information contamination complicate the process of finding
information on the Internet.

Finally, in the final chapter, the author describes the trends and as a result,
we can also read about the social role of libraries here. He deals with the social
perception and the prestige of the library as an institution, as well as the interna-
tional and domestic point system of demands placed on librarians. The author
attempts to prove the legitimacy and social role of libraries based on the statistics,
library sociology measurements and empirical research of the recent decades.

Máté Tóth draws four conclusions during the summation:

- Libraries have more and more functions, and providing information is
  neither the only nor the most important function.
- The majority of library users are from strata with high education and
  socioeconomic status,
- Reading, frequent internet use and book buying also have a positive
  effect on library use, as the library supports these activities,
- Lending books is the only activity that places libraries in a monopoly
  position.

The past century has also brought far-reaching functional changes in the
field of libraries, and their role is constantly changing. Máté Tóth defends the
prestige of libraries against the Internet (which does not necessarily carry with it
the usefulness and positive perception of libraries). The empirical research listed
in the book also supports that the library and the Internet are not rivals.

I close my description with the author's result, the thesis statement: "The
library is an open, multidimensional cultural community space, in which there are
many encounters due to the contents, and as a result of the encounters, continu-
ous value creation takes place. So many meetings, so much inspiration, so many
new ideas, so many new values. The unique value-creating ability of the library
system can be grasped in the openness that manifests itself towards the contents,
the users, and the constant changes, the increasingly diverse services adapted
to the needs of the times. This special ability to create value represents the long-
term legitimacy of libraries."

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Máté Tóth, A könyvtárak társadalmi szerepei empirikus kutatási adatok tükrében [Społeczne role bibliotek w świetle empirycznych danych badawczych], Szentendre, Hamvas Béla Pest Megyei Könyvtár 2022, ss. 193 ISBN 978-963-7521-91-1

Dóra Szabó jest doktorantką na Studiach Edukacyjnych i Kulturowych na Uniwersytecie w Debreczynie (Węgry). Studia ukończyła w 2020 roku jako nauczyciel języka i kultury niemieckiej oraz nauczyciel bibliotekoznawstwa i informacji naukowej. Podczas studiów zaczęła odkrywać technologie informacyjno-komunikacyjne (ICT), kompetencje cyfrowe i umiejętności cyfrowe przyszłych nauczycieli w oparciu o informacje online, a także fałszywe informacje. Jej obszar badawczy koncentruje się na przyszłych nauczycielach i ich cyfrowym podejściu, umiejętnościach edukacji cyfrowej. Głównym pytaniem jest, jaki wpływ na edukację mają fałszywe informacje i influencerzy.

Streszczenie: Artykuł jest omówieniem węgierskiej książki Máté Tótha, badacza i bibliotekarza na Węgrzech: „Społeczne role bibliotek w świetle empirycznych danych badawczych" (Szentendre, Hamvas Béla Pest Megyei Könyvtár, 2022), w której zwraca on uwagę na społeczną rolę bibliotek. Autor uzasadnia rację tej roli swoimi badaniami empirycznymi. Książka jest szerokim przeglądem jednej z najbardziej ekscytujących i szeroko dyskuto-

wanych kwestii współczesnej kultury węgierskiej, świat i rola czytelnictwa, książek, prasy, mediów elektronicznych, telefonów komórkowych, Internetu i wszechstronnie węgierskiej kultury czytelniczej. Autor podejmuje próbę udowodnienia zasadności i społecznej roli bibliotek w oparciu o statystyki, pomiary socjologii bibliotecznej i badania empiryczne ostatnich dziesięcioleci.

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Máté Tóth, Die sozialen Funktionen von Bibliotheken im Licht von empirischen Forschungsergebnissen, Szentendre, Hamvas Béla Pest Megyei Könyvtár 2022, SS. 193 ISBN 978-963-7521-91-1

Dóra Szabó ist eine Doktorandin im Bereich Bildungs- und Kulturwissenschaften an der Universität Debrecen (Ungarn). Im Jahr 2020 wurde sie Lehrerin für deutsche Sprache und Kultur sowie Lehrerin für Bibliotheks- und Informationswissenschaft. Während ihres Universitätsstudiums begann sie, sich mit Informations- und Kommunikationstechnologien, digitalen Kompetenzen und den digitalen Kompetenzen zukünftiger Lehrer im Kontext von Online-Informationen und Fake News auseinanderzusetzen. Ihr Forschungsschwerpunkt liegt auf angehenden Lehrern und ihrer digitalen Einstellung sowie ihren Fähigkeiten in der digitalen Bildung. Die zentrale Fragestellung ihrer Arbeit lautet, welchen Einfluss Fake News und Einflusspersonen auf die Bildung haben.

Schlüsselworte: Bibliothek; Legitimierung; soziale Rolle; Ungarn

Zusammenfassung: Der Artikel diskutiert das ungarische Buch „Soziale Rollen der Bibliotheken im Licht empirischer Daten" von Máté Tóth, einem Forscher und Bibliothekar in Ungarn (Szentendre, Hamvas Béla Pest County Library, 2022), in dem er auf die soziale Rolle von Bibliotheken aufmerksam macht. Der Autor begründet die Berechtigung dieser Rolle durch seine empirische Forschung. Das Buch bietet einen breiten Überblick über eines der aufregendsten und am weitesten diskutierten Themen in der zeitgenössischen

ungarischen Kultur – die Welt der Bücher, Zeitungen, elektronischen Medien, Mobiltelefo-
ne, des Internets und der facettenreichen ungarischen Lesekultur. Die Autorin versucht, die
Berechtigung und die soziale Rolle von Bibliotheken anhand von Statistiken, bibliothekari-
scher Soziologie und empirischen Studien der letzten Jahrzehnte nachzuweisen.

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Report on the international scientific conference *Relevance and listening: communicating the Christian message in the plurality of contemporary voices*, organised by the Department of Institutional Social Communication of the Pontifical University of the Holy Cross, Rome, May 2-4, 2023

Rafał Leśniczak has a post-doctoral degree in social sciences in the discipline of social communication and media science (University of Maria Curie-Skłodowska 2020), he is an associate professor and head of the Department of Social Communication, Public Relations and New Media at the Institute of Media Education and Journalism at the Cardinal Stefan Wyszyński University in Warsaw. He is the author of over 90 scientific publications in the field of media, religion and politics. His research interests focus on political communication, mediatization and public relations. He is currently a member of European Communication Research and Education Association (ECREA), International Association for Media and Communication Research (IAMCR), and the Polish Communication Association (PTKS).

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bstract: From 2 to 4 May 2023 an international scientific conference entitled "Relevance and listening: communicating the Christian message in the plurality of contemporary voices" was held in Rome. The meeting was organised by the Department of Institutional Social Communication of the Pontifical University of the Holy Cross in Rome. The aim of the conference was to analyse the challenges related to the proper understanding and implementation of institutional communication processes of ecclesiastical institutions in the perspective of the contemporary socio-political and cultural context. The conference's main speakers were, among others, Prof. Jim Macnamara (University of Technology of Sydney), Prof. José María La Porte (Pontificia Università della Santa Croce), Prof. Benedetto Ippolito (Università Roma Tre) and Prof. Lorenzo Cantoni (Università della Svizzera Italiana).

From 2 to 4 May 2023 an international scientific conference entitled "Relevance and listening: communicating the Christian message in the plurality of contemporary voices" was held in Rome. The meeting was organised by the Department of Institutional Social Communication (*School of Church Communication*) of the Pontifical University of the Holy Cross in Rome. The seminar was addressed to the representatives of the academic world, researchers of institutional communication, employees of church press offices and spokespersons of church institutions, as well as media experts dealing with the area of public relations and crisis management.

In the invitation to the conference participants, its organisers diagnosed the context and contemporary challenges for church press offices as follows:

> *Debates involving public opinion generate a plurality of voices, which in part enrich dialogue and in part produce confusion and tension, since the proposed solutions rarely leave space for those who think differently. (…) The Church's communications offices are faced with the challenge of broadening the debate so as not to get trapped in preconceptions that only reinforce certain stereotypes and prevent issues from being addressed in their full scope. In times of social change, one's identity is put to the test. In crises or rapid transformations, one is often unable to discern and clearly identify core values. Communicators can help those in charge of institutions highlight the essentials of their message and, when necessary, drive the necessary changes to be faithful to their mission. The role of the communicator is fundamental in listening to different opinions and introducing serenity in the debate. A good communicator will take great care in choosing the language to express the core identity of the institution and call to mind its mission* (13th Professional Seminar for Church Communications Offices, 2023).

In addition to the main topic of the meeting, the discussion of the conference participants was focused, among others, on the following subtopics: polarisation and hate speech, cultural debate and social conflict, relevance and communication of faith, leadership and internal communication, new communication proposals: webs, podcasts, social networks and other digital channels.

Over three days, the conference was attended by over 80 speakers representing over 30 countries, including the United States, Philippines, Mexico, Great Britain, Nigeria, Singapore, Switzerland and Austria. The conference proceedings were also attended by about 130 students and graduates of the Faculty of Social Communication and 35 academic teachers of the Pontifical University of the Holy Cross. The conference work included papers in the main panel, in six thematic sections, as well as an audience with Pope Francis in St. Peter's Square and a meeting with the employees of the Holy See's Communication Dicastery. The official languages of the congress were English, Spanish and Italian (with simultaneous translation).

The conference began on 2 May, 2023, with Welcome words by Prof. Luis Navarro, Rector of the Pontifical University of the Holy Cross. The Rector expressed his conviction that the participants of the conference came with many questions, ideas and reflections, and thanks to the deliberations, they will be able to organise them and give a new impetus to their work. In turn, the Dean of the Faculty, Prof. Daniel Arasa highlighted the main goal of the professional seminar: the importance of acquiring communication competences, proper listening and the accuracy of the broadcast message in the context of changing cultural and social circumstances in which ecclesial institutions fulfil their mission. He also noted that the cyclical conference dedicated to communicating among church institutions takes place in a stationary mode after a 5-year break caused by the pandemic.

On the first day of the meeting, the main panel presented their papers, among others: Prof. José María La Porte (Pontificia Università della Santa Croce) and Prof. Benedetto Ippolito (Università Roma Tre). In his paper entitled "Rebirth from One's Identity in a Secularized Context", Professor La Porte addressed the subject of the social, media and cultural context of journalistic work. The Spanish researcher noticed that contemporary quality journalism must constantly care about high work standards (the principle of truth and objectivity) and confront the culture of fake news. In the context of the dynamic development of technology, Prof. La Porte noted the importance of media education: "The truth is of no interest to today's society, everything has been left to subjectivity. That's why we have to ask ourselves who we trust in the digital world". The lecture by Prof. Ippolito was an attempt to answer the question whether Christian culture can still inspire a "tired" society, i.e. a society living in the culture of postmodernism, post-truth and neo-globalisation. The Italian researcher of the history of philosophy has made an analysis of contemporary European civilisation that essentially reduces the anthropological perspective to a natural and rational path of consciousness. Prof.

Ippolito, referring to the thought of the Fathers of the Church, stated that Christian culture has its summit in charity, in the love of God. He also invoked the thought of Pope Francis included in the encyclical *Fratelli tutti*, who calls for rediscover the importance of truth as the parameter of our personal, family and social life.

It is worth noting the presentation of Dr. Martin Kugler, a member of the Observatory of Intolerance and Discrimination Against Christians in Europe, as part of the panel "Amidst Polarisation, standing with the Vulnerable". The Austrian expert noted that a great challenge and opportunity for the institutional communication of the Church lies in understanding and appropriately referring to the dominant media narratives. The communication strategy should not be about escaping difficult questions but rather about the need to present them honestly and competently.

On the second day of the conference, its participants had the opportunity to meet members of the Dicastery for Communication and listen to a paper by its prefect Paolo Ruffini, entitled "The Role of the Dicastery in the Synodal Listening Process". The communication expert noted that the concept of synodality of Pope Francis and the process of institutional communication should be treated as complementary. In the opinion of Ruffini, communication not only broadens knowledge about synodality but also serves in formation in synodality, i.e. "to build the synodal communion of a people that communicates through its two-way communication" (Ruffini, 2023). This lecture was attended by, among others:

– Lucio Ruiz, Secretary of the Dicastery;
– Andrea Tornielli, Italian writer and journalist;
– Nataša Govekar, director of the Department of Pastoral Theology in the Vatican's Dicastery for Communication and the Dicastery's representative for SIGNIS (World Catholic Association for Communication, a non-governmental organisation that includes members from over 100 countries);
– Andrea Monda, Italian journalist and writer, editor-in-chief of *L'Osservatore Romano*;
– Matteo Bruni, Director of the Press Office of the Holy See.

Also, on the second day of the meeting, Prof. Daniel Arasa presented two new publications on Joaquín Navarro-Valls – the historical director of the Holy See Press Office at the time of John Paul II and Benedict XVI. The first book written in Spanish, *Mis años con Juan Pablo II*, edited by Prof. Diego Contreras, was based on the memoirs and personal notes of Navarro-Valls, which the author wished to be published after his death. The second book, *The Spokesman Behind Saint John Paul II: Professional Memories of Navarro-Valls' Friends and Colleagues*, by Rafael Navarro-Valls and José María La Porte, introduced the Holy See's long-time press officer.

Prof. Jim Macnamara (University of Technology of Sydney), in the panel entitled "Meeting the challenge of being a listening organization," drew attention to "listening" as the most effective dimension of communication. The serious errors in this area have consequences in the way the institution functions and in relations with external stakeholders, i.e. they contribute to a progressive decline in trust in the organisation and withdrawal of stakeholders. According to the Australian researcher, the proper culture of an organisation is expressed in the will and ability to listen to subordinates by the management of the organisation, and what is important, modern technologies, although they can help in listening, will not replace face-to-face meetings. Research by Prof. Macnamara proves that the right "listening architecture" results in employee loyalty, retention and high productivity, increased innovation, as well as increased reputation and trust in the organisation.

On the third day of the conference, Prof. Lorenzo Cantoni's lecture (Università della Svizzera Italiana) entitled "Listening and Relevance: Paying attention, Understanding, Being Understood" was of particular interest. For Cantoni, the measure of the effectiveness of communication is dialogue and cooperation, as well as the relationship between the speaker and the listener. The media expert emphasised the importance of communicative competence, the art of silence and a good attitude towards the speaker. In turn, in the lecture "Regaining the initiative to become relevant," Prof. Juan Manuel Mora (Pontificia Università della Santa Croce) presented the results of a research in the area of the importance of the intangible value of relevance for the communication of organisations, in particular for the communication of the Catholic Church.

In addition, the following media researchers delivered papers in the plenary sessions: Prof. Yago de la Cierva (IESE Business School), Prof. Maria José Canel (Universidad Complutense de Madrid), Prof. Marcela Pizarro (Universidad Austral), Mónica Herrero (Universidad de Navarra) and Guido Gili (Università degli Studi del Molise).

The Polish media experts who presented the results of their research at the conference in Rome included:

– Waldemar Bartocha from Cardinal Stefan Wyszynski University ("Religious communication of the Polish Bishops Conference and the diocesan bishops during the coronavirus pandemic in the media discourse and in the light of the analysis of selected Mass transmissions");
– Mariusz Boguszewski from Cardinal Stefan Wyszynski University ("L'immagine delle organizzazioni umanitarie ecclesiastiche polacche nel contesto di guerra in Ucraina");
– Paulina Guzik from the Pontifical University of John Paul II ("Turning scandals into opportunities – Lessons learnt listening to survivors of clerical sexual abuse");
– Michał Kłosowski, Deputy Editor In Chief of the *Wszystko Co Najważniejsze* ("Saint John Paul II and the 21s century Youths. The Polish case");

– Rafał Leśniczak from Cardinal Stefan Wyszynski University ("Political communication of the Polish Bishops' Conference after Russia's invasion of Ukraine in 2022");
– Krzysztof Stępniak from Cardinal Stefan Wyszynski University ("Religion in the discourse of religious and atheistic advertising: the sacred and profane");
– Piotr Studnicki from the Pontifical University of John Paul II ("Raccontare la propria versione di una crisi. Discussione sulla credibilità").

The Pontifical University of the Holy Cross established the School of Church Communications in 1996 to prepare communication professionals for ecclesial institutions. PUSC's social communication study program covers four main areas:
– the nature of communication and the elements upon which it is based (the processes of shaping public opinion, the structure of information-based entities and the language of the traditional means of communication, as well as the new technology-based media);
– the Church in a cultural context;
– the theological, philosophical and canonical content of the faith and its impact on the identity of the Church as an institution;
– the organisation of communications offices, methods of communicating with the various interlocutors of the Church and the presentation of the content of the faith in the field of public opinion (Pontifical University of the Holy Cross, 2023).

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Raport z międzynarodowej konferencji naukowej: *Znaczenie a słuchanie: przekazywanie chrześcijańskiego przesłania przy mnogości współczesnych głosów* [*Relevance and listening: communicating the Christian message in the plurality of contemporary voices*], zorganizowanej przez Wydział Instytucjonalnej Komunikacji Społecznej Papieskiego Uniwersytetu Świętego Krzyża w Rzymie, 2-4 maja, 2023

Rafał Leśniczak jest doktorem habilitowanym nauk społecznych w dyscyplinie nauki o komunikacji społecznej i mediach (Uniwersytet Marii Curie-Skłodowskiej 2020), jest profesorem uczelni i kierownikiem Katedry Komunikacji Społecznej, Public Relations i Nowych Mediów w Instytucie Edukacji Medialnej i Dziennikarstwa Uniwersytetu Kardynała Stefana Wyszyńskiego w Warszawie. Jest autorem ponad 90 publikacji naukowych z zakresu mediów, religii i polityki. Jego zainteresowania badawcze koncentrują się na komunikacji politycznej, mediatyzacji i public relations. Obecnie jest członkiem European Communication Research and Education Association (ECREA), International Association

for Media and Communication Research (IAMCR) oraz Polskiego Towarzystwa Komunikacji Społecznej (PTKS).

Słowa kluczowe: Kościół katolicki; słuchanie; public relations; znaczenie; komunikacja społeczna

Streszczenie: W dniach 2-4 maja 2023 r. w Rzymie odbyła się międzynarodowa konferencja naukowa pt. „Znaczenie a słuchanie: przekazywanie Chrześcijańskiego przesłania przy mnogości współczesnych głosów". Spotkanie zostało zorganizowane przez Katedrę Instytucjonalnej Komunikacji Społecznej Papieskiego Uniwersytetu Świętego Krzyża w Rzymie. Celem konferencji była analiza wyzwań związanych z właściwym zrozumieniem i realizacją procesów komunikacji instytucjonalnej instytucji kościelnych w perspektywie współczesnego kontekstu społeczno-politycznego i kulturowego. Głównymi prelegentami konferencji byli m.in. prof. Jim Macnamara (University of Technology of Sydney), prof. José María La Porte (Pontificia Università della Santa Croce), prof. Benedetto Ippolito (Università Roma Tre) oraz prof. Lorenzo Cantoni (Università della Svizzera Italiana).

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Bericht zur internationalen wissenschaftlichen Tagung „Relevance and listening: communicating the Christian message in the plurality of contemporary voices" („Relevanz und Zuhören: Die Vermittlung der christlichen Botschaft durch die Vielzahl zeitgenössischer Stimmen"), veranstaltet durch den Lehrstuhl für Institutionelle Soziale Kommunikation der Päpstlichen Universität Santa Croce in Rom, 2.–4. Mai 2023

Rafał Leśniczak ist Habildoktor der Sozialwissenschaften im Bereich Sozialkommunikation und Medien (Maria-Curie-Skłodowska-Universität 2020), außerordentlicher Professor und Leiter des Lehrstuhls für Sozialkommunikation, Public Relations und Neue Medien am Institut für Medienpädagogik und Journalismus an der Kardinal-Stefan-Wyszyński-Universität Warschau, Polen. Er ist Autor von über 90 wissenschaftlichen Veröffentlichungen zu den Themen Medien, Religion und Politik. Seine Forschungsinteressen konzentrieren sich auf politische Kommunikation, Medialisierung und Public Relations. Derzeit ist er Mitglied der Vereinigungen European Communication Research and Education

Association (ECREA), International Association for Media and Communication Research (IAMCR) und der Polnischen Gesellschaft für Sozialkommunikation (Polskie Towarzystwo Komunikacji Społecznej – PTKS).

Schlüsselworte: katholische Kirche; Zuhörer; Public Relations; Relevanz; soziale Kommunikation

Zusammenfassung: In den Tagen vom 2. bis 4. Mai 2023 fand in Rom eine internationale wissenschaftliche Tagung zum Thema „Relevance and listening: communicating the Christian message in the plurality of contemporary voices" („Relevanz und Zuhören: Die Kommunikation der christlichen Botschaft inmitten der Vielfalt zeitgenössischer Stimmen") statt. Die Tagung wurde vom Lehrstuhl für Institutionelle Soziale Kommunikation der Päpstlichen Universität Santa Croce in Rom organisiert. Das Ziel der Tagung war die Analyse der Herausforderungen im Zusammenhang mit dem angemessenen Verständnis und der Umsetzung von Prozessen institutioneller Kommunikation kirchlicher Einrichtungen im Kontext der zeitgenössischen sozio-politischen und kulturellen Realität. Zu den Hauptrednern der Konferenz gehörten unter anderem Prof. Jim Macnamara (Technologische Universität in Sydney / University of Technology Sydney), Prof. José María La Porte (Päpstliche Universität Santa Croce / Pontificia Università della Santa Croce), Prof. Benedetto Ippolito (Universität Rom III / Università Roma Tre) und Prof. Lorenzo Cantoni (Universität der Italienischen Schweiz / Università della Svizzera Italiana).

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African Librarians and the Future of Learning: Reflections from the 5th AfLIA Conference and 7th African Library Summit in Accra, Ghana

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Magnus Igbinovia is currently the Head of Electronic Library at Ambrose Alli University, Ekpoma. He is also an Adjunct Lecturer at the Department of Library and Information Science, Ambrose Alli University. He is currently undertaking a PhD program at the University of Ibadan, Nigeria. The author has written over fifty (50) scholarly articles published in reputable international and local journals. He has co-edited a book entitled "Global Perspectives on Sustainable Library Practices" published by IGI Global. He has also presented papers on Library and Information Science related conferences. He is a member of a few professional bodies like the Nigerian Library Association (NLA), Library Advocacy Group (LAG) and certified by the Librarians' Registration Council of Nigeria (LRCN). He is the recipient of the 2016 Young Library and Information Professionals (yLIPs) award by the Nigerian Library Association. He also received the award of 'Best Paper Presenter at the 55th National conference / AGM, Nigerian Library Association (NLA)' in 2017. Google scholar: https://scholar.google.com/citations?user=7C_Br5QAAAAJ

Abstract: Innovations in the 21st century have reshaped learning among people of different age, educational qualification, race, gender and geographical location. As a lifelong behaviour, it is predicted that the future of learning will transcend the conventional learning pattern and walls of the classroom with the introduction of open practices (such as the open educational resources) and the decolonization of educational content for both formal and informal learning. This discussion and many more characterized the 5thAfLIA conference and 7th African Library Summit in Accra, Ghana, as Librarians in Africa gathered to discuss the future of learning, libraries and sustainable development in Africa. The conference provided opportunity for Librarians in Africa to re-think their place in the future of learning and help achieve sustainable development. This paper, therefore, highlights the key activities and issues discussed during the 5th AfLIA Conference and 7th African Library Summit held in Accra, Ghana, from 22nd to 26th May, 2023.

Introduction

It is well established that membership in professional associations is one of the attributes of every profession. As such, professional associations exist to cater to the professional needs of their members within the ambit of specified mission and vision, guided by certain conduct known as professional ethics. In this light, Library and Information Science (LIS) professionals have instituted professional associations across local, national, regional and international levels. While the associations at various levels have their specific scope of coverage and extent of operations, the goal is usually similar, with the professional at the core of its existence. At the international level, the International Federation of library and Information Associations (IFLA) exist with the mandate to inspire, engage, enable and connect the global library field (IFLA, 2023). At the regional level, the African

Library and Information Associations and Institutions (AfLIA) exist to empower, lead and serve as a platform for the library and information community to actively advance and drive the development agenda through cutting-edge services that will enhance Africans' quality of life (AfLIA, 2020). In achieving this, AfLIA organises bi-annual African Library Summit and Conference to strength capacity of African professionals toward the realization of the association's vision and mission.

The 5th AfLIA Conference and 7th African Library Summit was held in Accra, the capital city of Ghana, in the Western part of Africa from 22nd to 26th May, 2023. The theme of the event was "Future of Learning, Libraries and Sustainable Development in Africa". The conference, attracted participants from different countries in Africa, Europe and North America; and also featured a pre-conference Workshop on Wikidata and a Post-conference Workshop on Library Publishing organised in conjunction with Scholarly Publishing and Academic Resources Coalition (SPARC), Africa.

The pre-conference workshop on Wikidata was organised to train African Librarians to open up knowledge and improve the discoverability of their library collections in a linked data environment using Wikidata. During the pre-conference Workshop, participants were taught to create their Wikidata usernames, Wikidata items and how to work in the Wikidata environment and improve the global knowledge-base of linked open data. Through the workshop, participants were able to increase visibility, connectivity and accessibility to African data. In addition to the Workshop on Wikidata, the pre-conference event also featured a virtual Webinar on "AfLIA LIS Education and Training Section – The IFLA Guidelines for Professional LIS Education Programmes: Consideration and Application in Africa". The event was organised using Zoom platform, and participants joined from different parts of the World.

The main conference began on the 23rd May 2023 with an opening ceremony. The chairperson`s opening remark was delivered by Alhaji Alim Garga, the president of AfLIA, while a welcome address was delivered by Dr. Nkem Osuigwe, the Director, Human Capacity Development and Training, AfLIA. The welcome address focused on fitting African Librarians for the future of learning with the help of the professional continental body (AfLIA). The welcome address recognised the challenge that a good number of young people in Africa lack the requisite skills for economic sustenance largely due to the structure of formal education in the continent and the fact that some of these young people do not complete formal education. This poses a serious challenge to living in the Fourth Industrial Revolution (4IR). The address recommended the democratisation of access to information and skills that will enable asynchronous learning in libraries of all types. In fact, Dr. Osuigwe noted that the future of learning in Africa could combine 'fluid options' in the form of formal, informal and sustainable lifelong learning. Furthermore, the keynote address for the opening ceremony was delivered by Hayford Siaw, the Chief Executive Officer, Ghana Library Authority; while John Ntim Fordjour, the

Deputy Minister of Education, Republic of Ghana; representing Dr. Yaw Osei Adutwum, the Minister of Education of Ghana, declared the conference open.

Libraries, Open Ecosystem and the Future of Learning in Africa

The second session of the day 1 event featured intellectually stimulating discussion and paper presentation around the open knowledge ecosystem. Ify Evangel Obim, Victor Wagwu and Eruchi Brown Akpelu presented their findings on the impact of open science in educational institutions in Rivers State, Nigeria, while Prince Kay-Takrama and James Njuguna Kimani shared ideas on how libraries can keep the power of reading going when schools are closed. Similarly, Dr. Tony Lelliott from Open Educational Resources (OER) Africa made a case for openness in academic libraries in Africa and explained why academic librarians in Africa should embrace open education. Tony`s presentation addressed open licences, OER, open access publications, open knowledge, open data and open science. The discussion reinforced the need for academic librarians to equip themselves with knowledge of open practices so as to help build an open knowledge ecosystem within the African continent. The framework for continuous professional development in the area of OER in Africa was also presented.

The third session of the day witnessed the 10th anniversary celebration of AfLIA and the launch of the book published in honour of Dr. Helena Asamoah-Hassan, the Executive Director, AfLIA. During the 10th anniversary celebration, Dr. John Tsebe, the 1st Elected President of AfLIA, traced the history of the association and also some of the challenges faced during the developmental phase of the association. The high point of the celebration was the presentation of awards to notable librarians in the African continent who were instrumental in the development of Library and Information Association and Institutions in Africa. Among the recipients of the award were Dr. Victoria Okojie and Dr. Helena Asamoah-Hassan. They were recognised for their contributions to AfLIA and the Librarianship profession in Africa.

The Day 2 of the main conference witnessed more paper presentations under the sub-theme of 'Modern curricula, pedagogy, African libraries and sustainable development.' Abdurrahman Bello Onifade and Juliet C. Alex-Nmecha presented a paper on Modern Curricula in African Library Schools: Setting the agenda for Sustainable Development. Maria Cotera and Joy Owango's presentation focused on Supporting the decolonisation of Learning in Africa – The TCC Africa and Digital Science Partnership. Other presentations during the session included Decolonising children's literature through the African storybook digital tools (Mimi Werna), Kids coding in Nakaseke Public Library: from Idea to reality through peer learning (Peter Balaba), amongst others. All presenters were allowed to make their presentation in 15 minutes.

OER for Quality and Inclusive Education: Revisiting the UNESCO OER's Recommendation

During the conference, a twenty-five minute breakout session was dedicated to the discussion of OER for quality and inclusive education, with specific focus on the role of UNESCO OER recommendation. During the breakout session, the conference participants were divided into six groups. The groups included group A1, A2, B1, B2 , C1, C2. The question for groups A1 and A2 was "what do African Librarians need to know to lead OER implementation?" The discussion-points under this question are:

1. More knowledge about OER?
2. Skills on identifying OER?
3. Where do we store OER?
4. The connection between OER and quality, inclusive education?
5. The licenses for OER?
6. The 5Rs of OER?

Groups B1 and B2, on the other hand, were asked to discuss on "Who can librarians work with in driving OER implementation?" In this session, the following sub-questions were asked:

1. Who can be said to be stakeholders in the OER implementation (students, lecturers/teachers, library users, administration department)?
2. Can publishers and vendors be stakeholders in the implementation of OER in your different institutions?
3. Can colleagues who are not here be considered as stakeholders that we need to convince?
4. Can regulatory body of education at different levels be part of the stakeholders?
5. How do we engage these regulatory agencies so that OER can be built into the curriculum?
6. How best can librarians approach these stakeholders, create awareness and get a buy-in from them concerning OER?

Furthermore, the remaining groups (Groups C1 and C2) were asked: "What challenges could African librarians face in taking charge of OER implementation?" The sub-items under this group were:

1. Policy? Quality assurance process by librarians? A community of practice to help build up and maintain best practices?
2. Will librarians be willing to join a communication channel set up solely for discussion on how OER is being implemented in their libraries – success stories, smart failures? Etc.
3. Not sure how to be an OER champion in your institution?

4.   Opposition from other stakeholders in education?
5.   Lack of skills on how to identify OERs?

Informal Education, Vocational Training and Skill Acquisition through Libraries

The third session of day 2 of the main conference was moderated by Professor Chinwe Anunobi, the National Librarian of Nigeria. The session ushered in several thought-provoking discussions and knowledge around Wikimedia projects and libraries. The theme for the presentations included Wikipedia 1Lib1Ref Campaign, AfLIA and Librarians role in promoting Wikipedia in Africa tertiary institutions, Wikipedia use by academic librarians as well as Art+Feminism edit-a-thon for African Libraries. A notable discussion during this session was "establishing authority controls with Wikidata external identifiers". Other presentations in Day 2 focused on AfLIA Leadership, Yesterday, Today and the Future, the role of libraries in promoting peace and conflict resolution in Zimbabwe, amongst others.

African Libraries as Digital Classrooms and E-learning Hubs

The first session of Day 3 witnessed paper presentations and ignited talks around libraries as spaces for learning. The papers presented examined the efficacy of academic libraries in supporting e-learning in a University setting; user experience and satisfaction of using the commons as a digital learning hub in academic libraries in Ghana, e-learning for human resource development in Academic libraries in Nigeria. The ignited talks focused on Science Technology Engineering and Mathematics (STEM) education and libraries; as well as bridging digital divide through public and community libraries. Other activities carried out during the conference were poster presentation, a visit to the exhibition and IFLA Session.

Indigenous Knowledge, the Future of Learning and Sustainable Development in Africa

Following Africa's rich but poorly documented indigenous knowledge, several conversations and presentations were made around the theme. Chidi Onuoha Kalu and Mafe Titilola Abigail presented a paper on the place of indigenous knowledge in the future of learning and sustainable development in Africa. Victor Wagwu, Adaora Obuezie and Kelechi Onyema examined indigenous knowledge, data literacy and sustainable development in Nigeria. Similarly, a discussion was held on digital skills of African librarians for e-Learning and for the future of learning.

Poster Presentations

During the course of the conference, interesting and captivating posters were presented by different scholars to help create awareness and enlighten conference participants on novel and important issues. For example, Cotera Maria presented a poster titled Future-proofing South African Education & Research libraries: TENET and Figshare. Obuezie Adaora Chigozie and Ihuoma Sandra Babatope's poster focused on visibility and accessibility: the prodigy of Wikimedia to library resources. Other posters presented include financial empowerment programmes for rural women in Enugu State, Nigeria (Chijioke Okwuoma Chidumebi); Digital skills for electronic information service delivery: Preparedness of support service staff in three of Ghana's premier university libraries (Baidoo Dinah Kotelkor and Nwagwu Williams Ezinwa); Building the learning potentials of youths and adults in Kaduna State through innovative services for sustainable development (Egwuibe Martina Ekwuchi); Literacy, Numeracy and entrepreneurship skills for women in the grassroot: An outreach in Amangwu Edda, Ebonyi State, Nigeria (Ogochukwu Eseni Nwando); Urgent leadership support for librarians in electronic resource management in Nigeria (Okonkwo Ifeyinwa Nkechi and Osuchukwu Ngozi Perpetua).

AfLIA Section Meeting for Key Outcomes based on Session outcomes/other issues

During the AfLIA conference in Accra, the different sections within AfLIA met to discuss issues bothering them and the way forward to driving advancement in the sections. Sections such as the Academic and Research Library Section, Library Education and Training Institutions Section, National Libraries Section, Parliamentary Library Section, Special Library Section, Community and Public Library Section and the National Library Association Section, met to review their activities and how to improve on them going forward. The presentation from the sections shows that membership drive, training and capacity building programs for members, and strengthening of the channel of communication among section members, were among the key issues discussed by all sections. These are pertinent issues, because the success or failure of library and information establishment will be greatly influenced by the capacity of their staff (Arua, 2019), participation in professional associations (Imam, et al., 2020) and effective communication (Wakimoto, 2021).

However, there were also section specific issues discussed during the meeting. For example, the issue of harmonisation of LIS curriculum and placement of LIS department within a faculty/college/school in universities in Africa was discussed extensively by the Library Education and Training Institutions' section, while the Academic and Research Library Section discussed the issue of place-

ment of academic librarians within their respective institution, as some institution/ country designate librarians in academic libraries as non-academic staff. As such, they are unable to rise to the status of a professor while working in the library. This is the case of some institutions in Ghana. However, some institutions/countries within the continent recognised Librarians in academic libraries as academic staff; hence, they are able to rise to the status of a professor while working in the library. Notable examples of academic libraries with this kind of structure are the Nimbe Adedipe University Library, Federal University of Agriculture, Abeokuta, Nigeria and the University of Lagos Library in South-western Nigeria. The study of Onifade, Okoro and Boakye (2018) using Ghana and Nigeria as a case study, revealed the inconsistency in the status, nomenclature and career progression between African librarians.

On the issue of capacity building for librarians on the continent, members of the sections identified areas of focus for training and development. These areas include building librarians' skill in digital storytelling, OER development and implementation in their institutions, scholarly publishing and research writing skills, grant proposal writing, skills for setting up Library Management Software (LMS) within the library amongst others.

Changing Of Guards: AfLIA Swears in New Officers

The 5th AfLIA Conference and 7th African Library Summit witnessed the swearing in of new officers to pilot the activities of the Association within the next two years (2023-2025). The officers sworn in included the executives of the different sections in AfLIA and the elected Governing Council members. It is, however, worthy to mention that the swearing-in ushered in the first female president of the Association, in the person of Professor Rosemary Shafack from Cameroon. The full list of council members to drive the association until 2025 is presented below:

Name	Position	Country
Prof. Rosemary Shafack	President	Cameroon
Sarah Iyaloo Negumbo	Vice President	Namibia
Mr. Alim Garga	Immediate Past President	Cameroon
Dr. Helena Asamoah-Hassan	Executive Director	Ghana
Mr. Kepi Madumo	Chairperson: National Libraries Section	South Africa
Dr Mac-Anthony Cobblah	Chairperson: Academic Libraries & Library Consortia Section	Ghana

Andrew Mankone	Chairperson: Parliamentary Libraries Section	Kenya
Lynn Jibril	Chairperson: National Library Association Section	Botswana
Antonneta Madziva	Chairperson: Public and Community Libraries Section	Zimbabwe
Dr. Sarah Kaddu	Chairperson: Library Education and Training Institutions (LETIS) Section	Uganda
Richard Fodjour	Chairperson: Special Libraries Section	Ghana
VellyKoumba Landry	Central Africa representative	Gabon
Eric Nelson Haumba	Eastern Africa representative	Uganda
Maha Abbas	North Africa representative	Egypt
Kepi Madumo	Southern Africa representative	South Africa
Mrs. Neemat Abdulrahim	West Africa representative	Nigeria
Sulemana Sogoba	French Speaking West Africa rep	Mali
Tendayi Madziga	Portuguese Speaking Africa rep	Mozambique
Doreen Appiah	Secretary (AfLIA Staff)	Ghana
	CO-OPTED MEMBER	
Dr. Nem Osuigwe	Director of Human Capacity Development & Training	Nigeria

Source: AfLIA (2023)

Concluding Remark

In ensuring sustainable development across Africa, AfLIA as a major professional Association in the continent is inspiring their members towards reshaping the future of learning through educational innovations. The Association is pushing the frontiers of open educational practices. It is believed that librarians of the 21st Century are equipped with the knowledge and skills to reshape the future of learning towards openness. As such, AfLIA in its 5th AfLIA Conference and 7th African Library Summit have 'set the ball rolling' through enhanced capacity, effective communication and unwavering dedication among members to revamp education in Africa and invariably stimulate sustainable development across the continent.

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Afrykańscy bibliotekarze a przyszłość nauki: Rozważania z 5. Konferencji AfLIA i 7 Szczytu Afrykańskich Bibliotek w Accra, Ghana

Omorodion Okuonghae jest szefem usług e-bibliotecznych na Glorious Vision University, Ogwa, Edo State, Nigeria. Uzyskał tytuł licencjata i magistra bibliotekoznawstwa i informacji naukowej na Delta State University w Abraka w Nigerii. Jest autorem licznych publikacji naukowych w renomowanych lokalnych i międzynarodowych placówkach z zakresu bibliotekoznawstwa i informatyki. Wygłaszał również referaty na wielu konferencjach lokalnych, krajowych i międzynarodowych. Omorodion otrzymał kilka nagród i wyróżnień, w tym nagrodę „Best Paper Presenter" na 57. konferencji i dorocznym walnym zgromadzeniu Nigeryjskiego Stowarzyszenia Bibliotek oraz ogólne uznanie dla najlepszych absolwentów na Wydziale Bibliotekoznawstwa i Informacji Naukowej, Delta State University, Abraka, Nigeria. Omorodion jest pasjonatem bibliotekarstwa, nowych technologii w bibliotece, umiejętności korzystania z informacji i komunikacji naukowej. Jest członkiem NLA. Google Scholar: https://scholar.google.com/citations?hl=pl&user=SXYe37MAAAAJ

Magnus Igbinovia jest obecnie dyrektorem Biblioteki Elektronicznej na Uniwersytecie Ambrose Alli w Ekpoma. Jest także adiunktem na Wydziale Bibliotekoznawstwa i Informacji Naukowej Uniwersytetu Ambrose Alli. Obecnie odbywa studia doktoranckie na Uniwersytecie w Ibadanie w Nigerii. Autor napisał ponad pięćdziesiąt (50) artykułów

naukowych opublikowanych w renomowanych czasopismach międzynarodowych i lokalnych. Jest współredaktorem książki „Global Perspectives on Sustainable Library Practices" wydanej przez IGI Global. Wygłaszał również referaty na konferencjach związanych z bibliotekoznawstwem i informacją. Jest członkiem kilku organizacji zawodowych, takich jak Nigerian Library Association (NLA), Library Advocacy Group (LAG) i został certyfikowany przez Librarians' Registration Council of Nigeria (LRCN). Jest laureatem nagrody Young Library and Information Professionals (yLIPs) przyznanej w 2016 roku przez Nigeryjskie Stowarzyszenie Bibliotek. Otrzymał również nagrodę "Best Paper Presenter na 55th National Conference/AGM, Nigerian Library Association (NLA)" w 2017 roku. Google scholar: https://scholar.google.com/citations?user=7C_Br5QAAAAJ

Słowa kluczowe: AfLIA; African Libraries; Nauka; otwarte zasoby edukacyjne; zrównoważony rozwój

Streszczenie: Innowacje w XXI w. zmieniły sposób uczenia się wśród osób w różnym wieku, o różnych kwalifikacjach edukacyjnych, rasie, płci i położeniu geograficznym. Przewiduje się, że przyszłość uczenia się wyjdzie poza konwencjonalny wzorzec i ściany klasy wraz z wprowadzeniem otwartych praktyk (takich jak otwarte zasoby edukacyjne) i dekolonizacją treści edukacyjnych zarówno dla formalnego, jak i nieformalnego uczenia się. Ta dyskusja i wiele innych określały kierunek 5. konferencji AfLIA i 7. afrykańskiego szczytu bibliotek w Akrze w Ghanie, gdzie bibliotekarze w Afryce zebrali się, aby omówić przyszłość nauki, bibliotek i zrównoważonego rozwoju w Afryce. Konferencja była okazją dla bibliotekarzy w Afryce do ponownego przemyślenia swojego miejsca w przyszłości uczenia się i pomocy w osiągnięciu zrównoważonego rozwoju. W związku z ty, ten artykuł podkreśla kluczowe działania i kwestie omawiane podczas 5. konferencji AfLIA i 7. afrykańskiego szczytu bibliotek, które odbyły się w Akrze w Ghanie w dniach 22-26 maja 2023 r.

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Afrikanische Bibliothekare und die Zukunft des Lernens: Überlegungen aus der 5. Konferenz der African Library and Information Associations (AfLIA) sowie dem 7. African Library Summit in Accra, Ghana

Omorodion Okuonghae ist der Leiter der Abteilung für E-Bibliotheksdienste an der Glorious Vision Universität in Ogwa (Bundesstaat Edo, Nigeria). Er hat einen Bachelor- und Masterabschluss in Bibliotheks- und Informationswissenschaft von der Delta Bundesuniversität in Abraka, Nigeria. Er hat viele wissenschaftliche Veröffentlichungen in renommierten nationalen und internationalen Verlagen im Bereich Bibliotheks- und Informationswissenschaft veröffentlicht. Er hat auch Vorträge auf zahlreichen lokalen, nationalen und internationalen Tagungen gehalten. Omorodion hat mehrere Auszeichnungen erhalten, darunter den Preis des „Besten Vortragenden" auf der 57. Tagung und der jährlichen Hauptversammlung des Nigerianischen Bibliotheksverbands (Nigerian Library Association) sowie eine allgemeine Auszeichnung als bester Absolvent des Lehrstuhls für Bibliotheks- und Informationswissenschaft an der Delta Bundesuniversität in Abraka, Nigeria. Omorodion ist ein leidenschaftlicher Verfechter von Bibliothekswissenschaft, neuen Technologien in Bibliotheken, Informations- und Kommunikationskompetenz. Er ist Mitglied des Nigeriani-

schen Bibliotheksverbands (Nigerian Library Association – NLA). Google Scholar: https://scholar.google.com/citations?hl=pl&user=SXYe37MAAAAJ

Magnus Igbinovia ist derzeit der Leiter der Digitalen Bibliothek an der Ambrose Alli Universität in Ekpoma. Er ist auch Dozent am Lehrstuhl für Bibliotheks- und Informationswissenschaft dieser Universität. Derzeit promoviert er an der Ibadan Universität in Nigeria. Er ist Autor von über fünfzig (50) wissenschaftlichen Artikeln, die in renommierten internationalen und lokalen Zeitschriften veröffentlicht wurden. Er war Mitherausgeber des Buches „Global Perspectives on Sustainable Library Practices" („Globale Perspektiven nachhaltiger Bibliothekspraktiken"), das von IGI Global veröffentlicht wurde. Er hat auch Vorträge auf Konferenzen im Bereich Bibliotheks- und Informationswissenschaft gehalten. Er ist Mitglied mehrerer Berufsorganisationen wie des Nigerianischen Bibliotheksverbands (Nigerian Library Association – NLA), der Interessengemeinschaft für Bibliotheken (Library Advocacy Group – LAG) und ist vom Registrierungsrat der Bibliothekare Nigerias (Librarians' Registration Council of Nigeria – LRCN) zertifiziert. Er wurde mit dem Preis „Junge Bibliothekare und Informationsfachleute" („Young Library and Information Professionals – yLIPs") für das Jahr 2016 der NLA ausgezeichnet. Im Jahr 2017 erhielt er auch den Preis des „Besten Vortragenden" auf der 55. Nationalen Tagung und Jahreshauptversammlung des NLA. Google Scholar: https://scholar.google.com/citations?user=7C_Br5QAAAAJ

Schlüsselworte: Afrikanische Vereinigung für Bibliotheken und Information (African Library and Information Associations – AfLIA); afrikanische Bibliotheken; Lernen; Open Educational Resources (OER); nachhaltige Entwicklung

Zusammenfassung: Die Innovationen des 21. Jahrhunderts haben die Art und Weise, wie Menschen unterschiedlichen Alters, Bildungsstandes, unterschiedlicher Rasse, Geschlechts und geografischer Lage lernen, verändert. Es wird geschätzt, dass die Zukunft des lebenslangen Lernens über das herkömmliche Lernschema und die Klassenzimmer hinausgehen wird, indem offene Praktiken (wie Open Educational Resources) und die Entkolonialisierung von Bildungsinhalten sowohl im formellen als auch im informellen Lernen eingeführt werden. Diese Diskussion und viele andere Themen kennzeichneten die 5. Konferenz der Afrikanischen Vereinigung für Bibliotheken und Information (African Library and Information Associations – AfLIA) und den 7. Afrikanischen Bibliotheks-Gipfel in Accra (7. African Library Summit in Accra), Ghana, bei denen sich Bibliothekare in Afrika versammelten, um die Zukunft des Lernens, der Bibliotheken und der nachhaltigen Entwicklung in Afrika zu erörtern. Die Tagung bot den Bibliothekaren in Afrika die Gelegenheit, ihren Platz in der Zukunft des Lernens neu zu überdenken und zur nachhaltigen Entwicklung beizutragen. In diesem Artikel werden daher die wichtigsten Maßnahmen und Diskussionsthemen während der 5. AfLIA-Konferenz und des 7. Afrikanischen Bibliotheks-Gipfel in Accra, Ghana, vom 22. bis 26. Mai 2023 vorgestellt.

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Morawiec, B. M. (2017, January 16). Biblioteka w Oleśnie wie jak to się robi! *Lustro Biblioteki*. http://lustrobiblioteki.pl/2017/01/biblioteka-olesnie-wie-sie-robi/.

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Khoir, S. (2016). *An information behaviour perspective into Asian immigrants' settlement in urban South Australia: Investigating their everyday life information seeking and the value of public library services* [University of South Australia]. https://ap01-a.alma.exlibrisgroup.com/view/delivery/61USOUTHAUS_INST/12145033070001831.

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Peter Konaszewicz-Sahajdaczny to Christopher Radziwill, January 13, 1622, Kiev (Radziwill Archives, Section II, no. 804). (1622). Central Archives of Historical Records in Warsaw, Poland.

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   - Informacje o afiliacji (pełnej nazwie instytucji), adresie e-mail i ID ORCID autora: czcionka Times New Roman; wielkość czcionki: 12; odstępy: 1,5; wyrównanie: akapit z lewej.
   - Tytuł: czcionka Times New Roman; wielkość czcionki: 12; pogrubienie; odstępy: 1,5; marginesy: 2,5 cm; wyrównanie: z lewej.
   - Informacja o autorze artykułu: czcionka Times New Roman; wielkość czcionki: 10; odstępy: 1; wcięcie akapitowe: 1,5 cm; marginesy: 2,5 cm; wyrównanie: obustronne.
   - Słowa kluczowe i streszczenie: czcionka Times New Roman; wielkość czcionki: 10; odstępy: 1; marginesy: 2,5 cm; wyrównanie: obustronne (same „Słowa kluczowe" i „Streszczenie": czcionka: Times New Roman; wielkość czcionki: 10; pogrubienie).
   - Tekst: czcionka Times New Roman; wielkość czcionki: 12; odstępy: 1,5; wcięcie akapitowe: 1,5 cm; marginesy: 2,5 cm; wyrównanie: obustronne.

- Przypisy: czcionka Times New Roman; wielkość czcionki: 10; od-stępy: 1; marginesy: 2,5 cm; wyrównanie: obustronne.
- Bibliografia załącznikowa – tytuł: czcionka Times New Roman; wielkość czcionki: 12; pogrubienie; brak wcięcia akapitowego; od-stępy: 1,5; marginesy: 2,5 cm; wyrównanie: obustronne.
- Bibliografia załącznikowa – tekst: czcionka Times New Roman; wielkość czcionki: 12; odstępy: 1,5; wcięcie akapitowe: 1,5 cm; marginesy: 2,5 cm; wyrównanie: obustronne.

9. Materiał ilustracyjny powinien zostać przesłany do redakcji w forma-cie: .jpg/.jpeg, .tif/.tiff lub .png.

10. W przypadku recenzji w nagłówku podajemy po kolei: imię i nazwi-sko autora publikacji, jej pełny tytuł (w przypadku pracy wielotomowej również liczbę tomów), nazwę wydawnictwa (w przypadku kolejnego wydania jego numer), miejsce i rok wydania, liczbę stron oraz numer ISBN.

11. Tytuły opublikowanych prac piszemy w tekście czcionką pochyłą.

12. Tytuły czasopism w tekście zaznaczamy za pomocą cudzysłowu.

13. Często cytowane nazwy instytucji, czasopism lub edycji źródłowych powinno się, po ich pierwszym zastosowaniu, skracać.

14. Wszelkiego rodzaju cytaty w tekście zaznaczamy za pomocą cudzy-słowu.

15. Daty w tekście zapisujemy według zasady: datę dzienną cyfrowo, mie-siąc słownie i rok cyfrowo (cyframi arabskimi). Natomiast w przypadku dat w przypisach wszystko zapisujemy cyfrowo (dzień i rok cyframi arabskimi, a miesiąc rzymskimi).

16. Przypisy bibliograficzne zastępuje się odesłaniem do bibliografii za-łącznikowej, którą należy opracować zgodnie z zasadami APA Style. Odesłanie w tekście umieszcza się w nawiasie okrągłym wg poniż-szych zasad.

(Oldenburg, 1989)

[surname in text] Oldenburg (1989)

(Michalak et al., 2016, p. 44)

(Fernández-Ardèvol et al., 2018)

(Jaskulski, 1864, pp. 1-2)

[surname in text] Jaskulski (1864, pp. 1-2)

17. W przypadku alfabetów cyrylickich, w tekście należy zachować ory-ginalna pisownię, natomiast w bibliografii załącznikowej zastosować transliterację.

18. Na końcu tekstu należy podać bibliografię załącznikową w stylu APA 7th edition i porządku alfabetycznym bez podziału na kategorie.

Poniżej zamieszczamy przykład bibliografii w stylu APA 7th edition:

Bibliografia

Książka:

Oldenburg, R. (1989). *The Great Good Place. Cafes, Coffee Shops, Community Centers, General Stores, Bars, Hangouts, and How They Get You through the Day*. Paragon House.

Ladewig, P. (2016). *Katechizm biblioteki* (Z. Gębołyś (red.); Z. Gębołyś & B. Kwoka (tłum.)). Wydawnictwo Uniwersytetu Kazimierza Wielkiego.

Michalak, D., Koryś, I., & Kopeś, J. (2016). *Stan czytelnictwa w Polsce 2015 roku*. Biblioteka Narodowa.

Artykuł:

Zybert, E. B. (2016). Bezdomni w bibliotekach - doświadczenia zagraniczne. *Przegląd Biblioteczny*, *84*(1), 27–45.

Fernández-Ardèvol, M., Ferran-Ferrer, N., Nieto-Arroyo, J., & Fenoll, C. (2018). The public library as seen by the non-users. *El Profesional de La Informacion*, *27*(3). https://doi.org/10.3145/epi.2018.may.19.

Sopyło, T. (2018). Fatnomatyka. Rzeczywistość wirtualna w bibliotece. *Bibliotekarz*, *5*, 24–33.

Artykuł w prasie:

Chociszewski, J. (1863, maj 20). Kronika. *Nadwiślanin*, 3.

Jaskulski, S. (1864, lipiec 8). Berlin, 6 lipca. *Dziennik Poznański*, 1–2.

Kobierska-Maciuszko, E. (2015, luty 4). Najwyższy czas dla BUW-u, by rozstać się z Hulakulą [LIST DO REDAKCJI]. *Gazeta Wyborcza. Warszawa*. http://warszawa. wyborcza.pl/warszawa/1,34862,17359733,Najwyzszy_czas_dla_BUW_u__by_ rozstac_sie_z_Hulakula.html?disableRedirects=true.

Artykuł w encyklopedii:

Comparison of reference management software. (2018). W *Wikipedia*. https:// en.wikipedia.org/w/index.php?title=Comparison_of_reference_management_ software&oldid=827336464.

Rozdział:

Ciesielska-Kruczek, R. (2013). Przestrzeń biblioteczna – miejscem nauki, działalności społeczno-kulturalnej, pracy. W M. Wojciechowska (Red.), *Fizyczna przestrzeń bibliotek* (s. 40–52). Oficyna Wydawnicza Edward Mitek.

Jeż, R., Konieczko, A., & Kwiatkowska, M. (2016). Jakość usług informacyjnych biblioteki akademickiej jako ważny element gospodarki opartej na wiedzy. W T. Piestrzyński & J. Jerzyk-Wojtecka (Red.), *Biblioteka w społeczeństwie wiedzy* (s. 33–44). Wydawnictwo Uniwersytetu Łódzkiego. https://doi.org/10.18778/8088-191-4.03.

Strona internetowa:

Grodecka, M. (2017, styczeń 20). *Czytanie z klockami LEGO. Biblioteka zaprasza na warsztaty*. PetroNews. http://petronews.pl/czytanie-z-klockami-lego-biblioteka-zaprasza-na-warsztaty/.

ORCID. (b.d.). *About*. Pobrano 7 marzec 2018, z https://orcid.org/.

Blogi:

Morawiec, B. M. (2017, styczeń 16). Biblioteka w Oleśnie wie jak to się robi! *Lustro Biblioteki*. http://lustrobiblioteki.pl/2017/01/biblioteka-olesnie-wie-sie-robi/.

E-Mail:

Żurawińska, Z. (2017, styczeń 26). *DOI w zapisie bibliograficznym* [List do Mariusza Balcerka].

Praca dyplomowa:

Khoir, S. (2016). *An information behaviour perspective into Asian immigrants' settlement in urban South Australia: Investigating their everyday life information seeking and the value of public library services* [University of South Australia]. https://ap01-a.alma.exlibrisgroup.com/view/delivery/61USOUTHAUS_INST/12145033070001831.

Rękopis:

Piotr Konaszewicz-Sahajdaczny do Krzysztofa Radziwiłła Styczeń 13, 1622, Kijów (Archiwum Radziwiłłów, Dział II, sygn. 804). (1622). Archiwum Główne Akt Dawnych w Warszawie, Polska.

Jarochowski, C. (1863). *X. Cypriana Jarochowskiego pamiątka z więzienia* (Towarzystwo Naukowe w Toruniu, Rps 189). Wojewódzka Biblioteka Publiczna – Książnica Kopernikańska w Toruniu, Polska.

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1. Die Redaktion erinnert daran, dass die Erscheinungen von sog. ghost-writing und guest authorship Anzeichen von wissenschaftlicher Unzuverlässigkeit und Unredlichkeit sind und alle entdeckten Fälle davon durch Benachrichtigung entsprechender Institutionen (Heiminstitutionen, wissenschaftliche Gesellschaften, Verbände der Editoren etc.) demaskiert werden.
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8. Formatierung:
   • Vor- und Nachname des Autors: Schriftart Times New Roman; Schriftgröße: 12; fettgedruckt; Abstand: 1,5; Textausrichtung: links.
   • Angaben zur Affiliation (vollständiger Name der Institution), E-Mailadresse und ID ORCID des Autors: Schriftart Times New Roman; Schriftgröße: 12; Abstand: 1,5; Textausrichtung: links.
   • Überschrift: Schriftart Times New Roman; Schriftgröße: 12; fettgedruckt; Abstand: 1,5; Randeinstellungen: 2,5 cm; Textausrichtung: links.
   • Angaben zum Autor des Beitrags: Schriftart Times New Roman; Schriftgröße: 10; Abstand: 1; Absatzeinzug: 1,5 cm; Randeinstellungen: 2,5 cm; Textausrichtung: im Blocksatz.
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richtung: im Blocksatz (die Wörter „Stichworte" und „Zusammen-fassung" selbst: Schriftart Times New Roman; Schriftgröße: 10; fettgedruckt).

- Text: Schriftart Times New Roman; Schriftgröße: 12; Abstand: 1,5; Absatzeinzug: 1,5 cm; Randeinstellungen: 2,5 cm; Textausrich-tung: im Blocksatz.
- Fußnoten (Referenzen): Schriftart Times New Roman; Schriftgrö-ße: 10; Abstand: 1; Randeinstellungen: 2,5 cm; Textausrichtung: im Blocksatz.
- Literaturverzeichnis – Überschrift: Schriftart Times New Roman; Schriftgröße: 12; fettgedruckt; ohne Absatzeinzug; Abstand: 1,5; Randeinstellungen: 2,5 cm; Textausrichtung: im Blocksatz.
- Literaturverzeichnis – Text: Schriftart Times New Roman; Schrift-größe: 12; Abstand: 1,5; Absatzeinzug: 1,5 cm; Randeinstellungen: 2,5 cm; Textausrichtung: im Blocksatz.

9. Das Illustrationsmaterial sollte der Redaktion im Format: .jpg/.jpeg, .tif/.tiff oder .png eingereicht werden.

10. Im Falle von Rezensionen werden in der Überschrift folgerichtig an-geführt: der Vor- und Nachname des Autors des Beitrags, sein voll-ständiger Titel (im Falle einer mehrbändigen Arbeit auch die Anzahl der Bände), der Name des Verlags (bei folgender Ausgabe auch die Nummer davon), der Ausgabeort und das Ausgabejahr, die Seitenan-zahl und die ISBN-Nummer.

11. Die Überschriften der veröffentlichten Arbeiten werden kursiv ge-druckt.

12. Die Überschriften der Zeitschriften werden im Fließtext im Anfüh-rungszeichen angeführt.

13. Häufig zitierte Namen von Institutionen, Zeitschriften bzw. Quelleneditionen sollte man nach der ersten vollständigen Nennung nur im Kurz-beleg wiedergeben.

14. Alle Zitate im Fließtext sind in einfache Anführungszeichen zu setzen.

15. Die Daten im Fließtext notiert man folgendermaßen: das Tagesdatum mit einer Ziffer, den Monat in Worten und das Jahr mit einer Ziffer (ara-bische Ziffern). Dagegen werden die Daten in den Fußnoten nur mit den Ziffern notiert (der Tag und das Jahr mit arabischen Ziffern, der Monat mit römischen).

16. Die bibliografischen Referenzen ersetzt man durch den Verweis auf das Literaturverzeichnis, das nach APA Style vorzubereiten ist. Die Verweise im Fließtext setzt man in runde Klammern nach den unten angeführten Richtlinien.

(Oldenburg, 1989)

[surname in text] Oldenburg (1989)

(Michalak et al., 2016, p. 44)

(Fernández-Ardèvol et al., 2018)

(Jaskulski, 1864, pp. 1-2)

[surname in text] Jaskulski (1864, pp. 1-2)

17. Bei kyrillischen Alphabeten ist im Fließtext die Originalschreibweise zu nutzen, ins Literaturverzeichnis setzt man dagegen die Transliteration.
18. Am Ende des Manuskripts sollte man das Literaturverzeichnis, vorbereitet nach APA 7th edition in alphabetischer Ordnung ohne Einteilung in Kategorien berücksichtigen.

Unten ein Beispiel des Literaturverzeichnisses, vorbereitet nach der APA 7th edition:

Literaturverzeichnis

Buch:

Oldenburg, R. (1989). *The Great Good Place. Cafes, Coffee Shops, Community Centers, General Stores, Bars, Hangouts, and How They Get You through the Day*. Paragon House.

Ladewig, P. (2016). *Katechizm biblioteki* (Z. Gębołyś (hrsg.); Z. Gębołyś & B. Kwoka (übers.)). Wydawnictwo Uniwersytetu Kazimierza Wielkiego.

Michalak, D., Koryś, I., & Kopeś, J. (2016). *Stan czytelnictwa w Polsce 2015 roku*. Biblioteka Narodowa.

Beitrag:

Zybert, E. B. (2016). Bezdomni w bibliotekach - doświadczenia zagraniczne. *Przegląd Biblioteczny*, *84*(1), 27–45.

Fernández-Ardèvol, M., Ferran-Ferrer, N., Nieto-Arroyo, J., & Fenoll, C. (2018). The public library as seen by the non-users. *El Profesional de La Informacion*, *27*(3). https://doi.org/10.3145/epi.2018.may.19

Sopyło, T. (2018). Fatnomatyka. Rzeczywistość wirtualna w bibliotece. *Bibliotekarz*, *5*, 24–33.

Zeitschriftenartikel:

Chociszewski, J. (1863, 20. Mai). Kronika. *Nadwiślanin*, 3.

Jaskulski, S. (1864, 8. Juli). Berlin, 6. Juli. *Dziennik Poznański*, 1–2.

Kobierska-Maciuszko, E. (2015, 4. Februar). Najwyższy czas dla BUW-u, by rozstać się z Hulakulą [BRIEF AN DIE REDAKTION]. *Gazeta Wyborcza. Warszawa*. http://warszawa.wyborcza.pl/warszawa/1,34862,17359733,Najwyzszy_czas_dla_BUW_u__by_rozstac_sie_z_Hulakula.html?disableRedirects=true

Enzyklopädischer Beitrag:

Comparison of reference management software. (2018). W *Wikipedia*. https://en.wikipedia.org/w/index.php?title=Comparison_of_reference_management_software&oldid=827336464

Beitrag in Herausgeberwerken:

Ciesielska-Kruczek, R. (2013). Przestrzeń biblioteczna – miejscem nauki, działalności społeczno-kulturalnej, pracy. W M. Wojciechowska (hrsg.), *Fizyczna przestrzeń bibliotek* (S. 40–52). Oficyna Wydawnicza Edward Mitek.

Jeż, R., Konieczko, A., & Kwiatkowska, M. (2016). Jakość usług informacyjnych biblioteki akademickiej jako ważny element gospodarki opartej na wiedzy. W T. Piestrzyński & J. Jerzyk-Wojtecka (hrsg.), *Biblioteka w społeczeństwie wiedzy* (S. 33–44). Wydawnictwo Uniwersytetu Łódzkiego. https://doi.org/10.18778/8088-191-4.03

Webseite:

Grodecka, M. (2017, styczeń 20). *Czytanie z klockami LEGO. Biblioteka zaprasza na warsztaty*. PetroNews. http://petronews.pl/czytanie-z-klockami-lego-biblioteka-zaprasza-na-warsztaty/

ORCID. (n.d.). *About*. Zugriff am 7.03.2018 auf https://orcid.org/

Blogs:

Morawiec, B. M. (2017, 16. Januar). Biblioteka w Oleśnie wie jak to się robi! *Lustro Biblioteki*. http://lustrobiblioteki.pl/2017/01/biblioteka-olesnie-wie-sie-robi/

E-Mail:

Żurawińska, Z. (2017, 26. Januar). *DOI w zapisie bibliograficznym* [Brief an Mariusz Balcerek].

Diplomarbeit:

Khoir, S. (2016). *An information behaviour perspective into Asian immigrants' settlement in urban South Australia: Investigating their everyday life information seeking and the value of public library services* [University of South Australia]. https://ap01-a.alma.exlibrisgroup.com/view/delivery/61USOUTHAUS_INST/12145033070001831

Handschrift:

Piotr Konaszewicz-Sahajdaczny do Krzysztofa Radziwiłła Styczeń 13, 1622, Kijów (Archiwum Radziwiłłów, Abt. II, Sign. 804). (1622). Archiwum Główne Akt Dawnych w Warszawie, Polska.

Jarochowski, C. (1863). *X. Cypriana Jarochowskiego pamiątka z więzienia* (Towarzystwo Naukowe w Toruniu, Rps 189). Wojewódzka Biblioteka Publiczna – Książnica Kopernikańska w Toruniu, Polska.