

Victor N. NWACHUKWU  
School of Library and Information Science  
University of Nigeria, Nsukka  
Nigeria  
e-mail: victor.nwachukwu@unn.edu.ng.

TONY I. OBASEKI  
Ambrose Alli University Library  
Ekpoma  
Nigeria  
e-mail: aligaji4@yahoo.com

## PERCEPTION OF LIBRARIANS ON THE USE OF MOBILE TECHNOLOGIES IN MEETING INFORMATION NEEDS OF UNIVERSITY LIBRARY PATRONS



Dr. Victor N. Nwachukwu is a Senior Lecturer and presently the Ag. Head of the Department of Library and Information Science, University of Nigeria, Nsukka. He holds BA, MLS and Ph.D degrees (Nigeria). Dr. Nwachukwu is a chartered librarian. He has published many articles in professional journals and has contributed many chapters in books. He is the editor-in-chief of the "African Library Sentinel Journal". He is an experienced administrator and has served as the coordinator of Postgraduate Programme and has supervised many works both at undergraduate and postgraduate levels. He has served as a resource person in a number of workshops and conferences. His areas of specialization include: Information and Communication Technologies and Reference Services.

Dr. Tony I. Obaseki, is a librarian in the Ambrose Alli University. He holds certificates and degrees such as a Diploma, BLS (DELSU) MLS (BUK), Ph.D (Nigeria) in library and information science. He is a chartered librarian. Presently he is a systems librarian at the University Library. He has published many journal articles and chapters in books and attended numerous conferences on librarianship both in Nigeria and



abroad. Apart from being a practicing librarian, he also teaches various courses such as Computer Application to Library Process; Introduction to Library and Information Science; Introduction to Information and Communication Technologies; Introduction to Software Application and Use in Information Systems in the Department of Library and Information Science, Ambrose Alli University, Ekpoma. He specializes in Information and Communication Technology in Library Process and Information Science.

**KEY WORDS:** Information age. Globalization. Technological advancement. Information and Communication Technologies. Information Transactions. International collaboration. Marketing. Librarians.

**ABSTRACT:** **Objective** – This paper is an in-depth analysis of the theoretical view of librarians with regard to the use of new technologies (such as mobile technologies) for service rendering in libraries in the era of information age and globalization. It also posits that libraries and librarians in the developing states have a lot to contribute to the socio-economic and infrastructural development of their states. **Research method** – The paper refers to the changes in the types of Information and Communication Technologies (ICT) available in libraries, and asserts that there is a gradual technological advancement from visible to invisible and from unmovable to movable ICTs. Mobile technologies e.g. iPads, iPods, iPhones, the paper stated have become a part of ordinary life and their common use is overshadowing the existence of computer desktops, and laptops. Mobile technology use is increasing as not only the literate academics use mobile technologies, but also the literate artisans use it for online social networking. The trend this paper asserts is in both societies of the developed and developing states, but buttresses that mobile technologies are judiciously used for information transactions and access to information store-houses in developed states. Thus, the call for librarians to rise up to the task by using mobile technologies for information transaction. Problems of inadequate technical skills, limited bandwidth subscriptions, shortage of technical manpower in libraries, dearth in collaboration, nonchalant attitude of librarians towards novel innovations in libraries, inadequate library marketing programme, under development of library internal online network etc, are mitigation towards the use of mobile technologies in library service rendering. **Results and conclusions** – The paper states that collaboration between libraries in the form of an exchange programme between library professionals in developed and developing states, adequate funding of libraries and librarians training, adequate marketing of library facilities and services, and increased lobbying of the government by library heads for better packages for libraries are steps towards ameliorating the problems identified in this paper.

## INTRODUCTION

In modern societies libraries are recognized as instruments responsible for managing information resources. This function has over the years been carried out effectively and efficiently. With the dawn of information in the

information age with its attendant information explosion, it has become challenging for libraries to continue providing services and functions efficiently manually. This template according to this paper has changed, as the library is no longer a "place" but an institution or organization where information resources in all forms are made readily available to users to satisfy their hunger for knowledge. In the words of Allen (1984) the library is an organized collection of information resources made accessible to a defined community for reference or borrowing and provide physical or digital access to materials, and may be a physical building or room, or a virtual space or both. This is an indication that the libraries as it were, have gradually been visited by acute metamorphosis. Furthermore, that the library as an institution is the home of information and because information is key to healthy society, the library then is sine-qua-non to the world social and economic existence, especially at this era that being referred to as information age and aptly buttressed as globalization.

This paper is of the view that globalization has led to an abrupt upsurge in:

1. Global financial decay,
2. Terrorism scourge-insecurity,
3. Food scarcity – food insecurity,
4. Politics and its negative whirlwind of electoral malpractices,
5. Infrastructural neglect-government insensitivity,
6. Threat to existence of formal educational training e.g. higher education,

Thus only the library can exonerate the world society. Hence, this paper is of the view that the above mentioned trends will be expunged with an adequate provision of information to the public by libraries by bringing information to the door steps of the initial ignorant masses thereby helping to correct the ills occasioned by mis-information and non-access to information especially in the developing states of the world. Developing and developed states are terms which this paper uses to differentiate between the more technologically and economically balanced states of the world and the less technological and economically balanced states of the world. The developing states include states like Brazil, Nigeria, Ghana, Niger, Iran, Turkey etc. while the developed states are Great Britain, Japan, USA, France, South Korea to mention but a few.

Interestingly, for a developing state as Nigeria, a practice similar to librarianship started in the early 1900s with the establishment of reading rooms during the second world war by the British colonial masters, in a bid of keeping their colonial enclave alive with information of happenings at war fronts. These reading rooms later transformed into pockets of city-public libraries such as the Lagos Book Club in 1920s. Nigeria as a state actually tasted library practice with the establishment of the Yaba College of Technology and the University College Ibadan in 1930 and 1940 respectively. Ho-

wever, the establishment of these institutions with libraries in Nigeria did little to spur the government into recognizing the library profession; hence the profession (librarianship) was left to survive by itself till the mid 1960s, when the Nigerian government enacted the national library act of 1964, and again almost thirty (30) years later in 1995 with the enactment of the Librarians' Registration Council of Nigeria (LRCN) act no 12 of 1995 (LRCN annual report, 2013). It is worthy to mention in this paper that librarians in Nigeria prior to these laws never relented in agitating for government official recognition of the profession, as they embarked on a series of educational conferences and workshops that laid the intellectual basis for the creation of a network of libraries especially in universities funded by the government and private bodies to provide accessibility to educational materials by academic institutions. Today, the network of libraries in Nigeria vis-à-vis those academic institutions such as the universities have become so large. This is so as Obaseki (2014), reported in a study that the number of Universities in Nigeria is one hundred and twenty-six (126), with thirty-six (36) owned by state government, forty (40) owned by federal government, while fifty (50) owned by private individuals or organizations.

The paper is optimistic that the observable explosions in the growth of Universities in Nigeria vis-à-vis university libraries, which have also witnessed a corresponding increase in student enrolment over the years, but on the other hand is in conflict with the student adequate access and use of physical library resources. Buttressing this assertion above, Shu'ara (2010) reported the obnoxious annual increase of new students into Nigerian Universities which is not matched with a corresponding increase in available facilities in these universities.

Table 1

Population Index of New students in Nigerian Universities from 2007-2010

| S/N | YEAR | POPULATION INDEX |
|-----|------|------------------|
| 1   | 2007 | 971,679          |
| 2   | 2008 | 1,192,050        |
| 3   | 2009 | 1,184,651        |
| 4   | 2010 | 1,330,531        |

culled from Shu'ara Jamila (2010).

Interestingly, the writers observe that the increase in the number of university libraries vis-à-vis the reported increase of student population does not positively correlate with the available number of professional librarians in Nigerian universities, this is because most university libraries have very

few practicing librarians as staff. This observation is aptly corroborated by Librarians Registration Council of Nigeria (LRCN) annual report of 2013. This trend of in adequate staff strength in libraries is inimical to the ability of universities vis-à-vis its' library to provide the necessary enabling information resources to satisfy academic information needs of the Nigerian university library users', how to make it possible is the big Q, because tenaciously providing the needed information resources by librarians could be better achieved with the adequate implementation and use of Information and Communication Technologies (ICTs) and its components such as mobile technologies in libraries for the essence of information processing, retrieval and dissemination.

#### MOBILE TECHNOLOGIES (ICTS): THEIR TENETS AND TRENDS IN LIBRARIES

Mobile technology introduction and use in libraries all over the world is no longer novel. The novelty being experienced these days are methods of application and accessibility to information store houses (libraries). Importantly this paper is of the view that mobile technology emanated from the tenets of Information and Communication Technology (ICTs), which involves the coming together of series of technologies joined together by physical cables or virtual programs for the purpose of information resources selection, acquisition, processing, storage, retrieval and dissemination. In his paper Blurton (1999) sees ICTs as a set of technological tools and resources used to communicate and create, disseminate, store and manage information.

In the same vein, Eyitayo (2012), was of the view that such buzz words such as cloud computing, web 2.0, library 2.0, social media, blogging, web chats, integrated library systems, digital libraries, and institutional libraries heralded the un-imaginary ICTs. *Mobile technologies are tools and facilities that are handy and less bulky that facilitate the easy access to any stored virtual information regardless on the location, size, position of use etc. This paper is of the position that mobile technologies include i-pads, i-pods, smart-phone such as i-phones, blackberry, mobile applications such as App Brain, Appolicious, app store, Getjar, mimvi, Lap tops, Palm tops, Mobile phones etc.* These technologies have not only revolutionized the manner in which information is handled by both librarians and information seekers but it has also transformed the status of the librarian into super-stars especially in developing states such as Nigeria were libraries and librarians are still struggling to gain relevance. The onus therefore, is that libraries and librarians in Nigeria should expedite measures that will make them better information handlers and providers, as the writers have observed that:

1. More library users of recent frequent the library premises because of the presence of Internet,
2. Library users now ask or request for absolute difficult query,
3. Library is becoming a relevant tool in societies were hitherto, they were looked upon as centers that houses books only,
4. Library users now disregard the stand alone desk top computers available in libraries, preferring to use personal hand held technologies; hence requesting for internet network connectivity.

Based on the observations above, sacrosanct in this paper is the call for the use of mobile technological devices by librarians and libraries for information services to patrons. In the word of Griffey (2011) today students and professionals live in a 24/7/365 digital world, they conduct their lives in an integrated, mobile, just-in-time and point-of-need fashion. This assertion is obvious and a truth as observation has shown that school life and hours is not as separated from non-school life. This is as both the literate school attendees and the literate artisans on the road side now use mobile technologies on a daily basis for their livelihood.

Thus the nascent urgent call for libraries all over, especially in developing states of the world to embrace the use of mobile technology. Buttressing this fact, Barile (2011) opined that the International Telecommunication Union (ITU) estimated that more than 5 billion mobile subscriptions would exist worldwide by the end of 2010, which more than triple home internet access. This is not surprising as there is an increase in smart-phone use and people are getting connected were ever they are.

#### CASE STUDIES IN USING MOBILE TECHNOLOGIES FOR SERVICE RENDERING IN LIBRARIES

Going by the available statistics of available university libraries in Nigeria, vis-à-vis the non complimentary ratio of practicing librarians when compared to the ever increasing population of university students in Nigeria as earlier stated in this paper, a critical philosophical question will be posed. How will librarians' render information services to satisfy the information needs of the Nigerian university students?

Interestingly, observations of literatures have shown that using novel technologies in libraries will not only enhance the scope of information resources that will be provided to users but that it will also motivate library users to access library resources. In support of this position above, Amuni, et al (2014) discovered from a study titled "the use of mobile technology and information service provision. Perception of library users in selected universities" that the inability of most university libraries in Nigeria to provide information to users via mobile technologies even with the presence of in-

ternet connectivity and internet capable mobile device being used by users to search for information through various means. The study further revealed that library users have preference for mobile device in information search and want library services to be performed through website technology.

Similarly, an earlier study by Iwhiwhu & Ruteyan & Eghwubare (2010) titled *Mobile Phones for Library Services: Prospects for Delta State University, Abraka*, revealed that the majority of respondents believes that GSM can be applied to reference and readers services and will encourage the use of library facilities. These findings from above studies have further espoused the fact that mobile technology use is becoming ubiquitous, hence the technology is everywhere and handy. In line with this assertion Thomas (2011) was of the opinion that mobile computing is transforming how people search, receive and interact with information on a daily basis.

#### THEORETICAL FRAMEWORK FOR MOBILE TECHNOLOGIES IN LIBRARIES IN DEVELOPING STATES

The philosophy behind the present agitation of this paper towards librarians use of mobile technology especially in developing states such as Nigeria is based on the premise that Government in these countries no longer build or erect libraries hence, the need to involve mobile technologies by librarians in order to get information to those communities where there are no libraries as observation have shown non-educationally literate masses surfing the Google in search of news through the use of blackberry phones. Information accessed passively using mobile technologies passive information is flat or static in nature, hence it requires no further interaction between the librarian and the user. Similarly, mobile technologies guarantees ease of accessing the library information store as understanding becomes crucial under mobile conditions. Library users while engaging in physical activity such as walking or interacting may focus for as little as four seconds continuously on mobile information retrieval task. Again, many more persons will get educated, informed and civilized through adequate on-time access to information stored in libraries even without visiting the library building. This will eradicate extremist violent tendencies found often in non educated persons. Hence, citizens will often dialogue and negotiate and refrain from violence and unrest due to high level of access to information through the use of mobile technologies. Furthermore, industrialization especially in the initial non-performing sector of agriculture in Nigeria and developing state will be on the increase, as farmers can directly access needed information through their mobile device. Hence, recent observations have shown farmers in Nigeria communicating either verbally or through texts with families or business associates in cities far from their farms.

Based on the above theoretical overview, the paper is of the opinion that libraries in developing states should be exploring mobile devices as a way to connect with patrons. This is by creating institutional library application (app) or library mobile web site that allows patrons to access library hours; view their library account or even search databases domiciled in the library. This is because the mobile web live up to its name; in that people often access information while actively walking or engaging in multiple tasks. Karen Mills admitted in Aldrich (2010) that users of the University of Cambridge seem to want access to information just as if they were using a full web-capable desktop or laptop computer.

Interestingly, this paper is of the position that novel introduction in libraries such as mobile technology is sacrosanct, but its introduction is being marred by an array of indices that are internal and external to the library. This was aptly deduced from the write up of Prof. M.G. Ochogwu in (2007) that:

Libraries and librarians are guilty of the service of inadequacies that "have befallen their constituencies in recent times. Instead of taking the bold steps required of them by the actors and communities of patrons whom they serve in purging or purifying themselves first; they are seen pursuing the unseen adversaries".

From the above, it is quite explicit that libraries and librarians can point out significant areas of short-comings as espoused in the opinion paper below. In view of the paper, the following are hindrances to mobile technology use in libraries.

1. Inadequate Technical Skills:

It is agreeable that mobile technology presence in all society is huge, as this paper is of the position and has earlier stated that both the literate academicians and illiterate artisans are seen as carrying them about and at same time using them, but the area of application of these mobile technologies in information business is passive and not in-depth. This is because observations have revealed that high number of mobile technology owners uses them for image capture, oral calls, and in most social interactions, this position is also attributed to librarians. The basic technicalities are not available to these carriers of mobile technologies (MT) on how to use the apps available in them for web surfing, library surfing, library information storage, retrieval and dissemination. The stark reality is that MT are purchased by many in developing state for ego cure.

2. Limited Bandwidth Subscription:

Librarians and their institutions still battle for limited bandwidth subscriptions and directly stifle any attempt to opening up the internet channels as it will adversely affect the speed of online communication. This apt hindrance is serious in developing states of the world public and private sectors. This unwritten policy is endemic to the institutionalizing off-mobile library "app" networks in most libraries and information centers.

### 3. Shortage of Technical Manpower in Libraries:

It is an observation that most libraries especially in developing states till date still rely on the structure of the early centuries in employing library personnel's, for instance, "only an individual who reads library studies" is employable in libraries. This trend coupled with the in-ability of most library professionals and intending librarians to marry both trends of librarianship and ICT-MT have left a tremendous huge gap of inadequate technical manpower in libraries. This, incidentally, has occasioned the excessive level of lackadaisical attitude towards novel innovations by librarians and non-creativity and initiatives on the part of major actor in librarianship.

### 4. Lackadaisical Attitude of Information Professionals to Novel Introduction:

This paper again states the recalcitrant nature of practicing librarians towards new ideas and introductions in their area of work especially in developing states. Painstakingly, they are trained through formal and informal workshops, conferences; ICTs are provided but not used for information purposes but rather there is this sit-down-look (wait and see) syndrome.

### 5. Non-Adequate marketing of Library Services and Facilities

Little or nothing is being done by libraries and information centers in their area of library mass sensitization. As was earlier noted on page number 3 (first paragraph) above, librarians are waiting on library users to personally come to the library for information use; this is quite alarming and yet an impossible arrangement, as the intended patrons may not be aware of the service and facilities available in the library owing to the introduction of ICT and its appendices at this era of globalization.

### 6. Death of Collaboration amongst Libraries

Exchange of physical staff, ideas and resources in libraries have collapsed over the years. Interestingly, donation of books and sometimes physical facilities such as computers (Pentium 3 and 4) seems the most important aspect of collaboration with no attention paid to the human and financial aspect of collaboration amongst libraries in the states of the world.

### 7. Lack of Library Internal Online Network and Mobile

This technology (MT) app, consist of building or institutionalizing a domestic library online system called the Internet. Majority of libraries in the developing states have difficulty in hosting such systems which is a leeway to mobile technology (MT) application and use. Also libraries and most librarians in developed states still grope in the sea of ideas occasioned by globalization and industrialization and they have not yet noticed the nascent trend of mobile application and websites, hence they (librarians & libraries) have not put plans on ground to evolve mobile app websites such as, M-libraries-library services best practice, Library in your pocket, Classic, Dropbox, Evernote, Meebo mobile, Planets, App brain, Appolicious, Mimvi, Getjaretc.

## STRATEGIES TOWARD AMELIORATING IDENTIFIED HINDRANCES

No nation, organization nor library is an island to itself, meaning that there is no state of sufficiency that is achievable by any library. It is before glaring that some libraries in the world are richer than their contemporaries in terms of finance and technical and developed human resources. This paper is of the position that an enhanced continuous collaboration between libraries in developed (USA, Great Britain, Finland, Greece, Canada etc) states and developing (Nigeria, Kenya, Brazil, Iran, and Turkey etc) states is necessary. This should be in the form of an exchange program of professional library staffs and finance. This collaboration will help to bequest of technical ideas and skills on libraries and Librarians in this era of information globalization. Furthermore, librarians should vigorously sensitize their user community as regards the services they have in the libraries for them (users), Increase Marketing of Library Services and Facilities: If and when they are aware, using these services and facilities will be enhanced, improved and tremendous, thus making the society richly informed. In the case of mobile technology web applications, the entire public can use it/access information from their homes and distant offices. Thus furthering/ entrenching a literate and informed society. Interestingly, armed with novel ideas such as the need to apply mobile technology in library functions and its positive effects when applied to libraries and information centers library heads and managements should prioritize the sensitization of government by lobbying for their attention to libraries. This will further bring about enactment of policies that relate to the utmost library needs, such as increased funding, independence in recruitment, right to participate in exchange programs, to mention but a few. However, a continuous training program should be organized for library professionals, especially in the novel library areas such as Library web management, Library networking, and Library web design to mention but a few. This trainings when put in place in libraries and information centers will ensure that information professionals are adequately prepared to face challenges that may reveal itself during applications of ICTs to library and information services.

Conclusively, this paper calls for an increased funding of university libraries by the government, its agencies and non-governmental agencies. This is so because the present state of funding of university libraries in Nigeria, where 10 percent of the entire university is supposed to be for library use, is left at the mercy of the university management, which is not in tune with the internationally accepted standard. It is however the position of the paper that non-governmental organizations should sincerely join in funding of libraries worldwide. This is because governments of the world are not sincere towards actualizing the vision 2020 information for all agenda.

## CONCLUSION

An informed society is a healthy society, to make societies in developing states healthy; libraries have to play a significant role that requires them to establish and take proactive steps such as using novel trends that include mobile technologies. Using mobile technology for information transactions by libraries in no small measure will bring back the feelings of mobile library services that existed long ago in states such as Nigeria, India, Ghana, South-Africa, United States of America, United Kingdom, Ivory Coast, to mention but a few, that prompted the zeal to get educated by great men such as Kwame Nkrumah, Nelson Mandela, Obafemi Awolowo, Nnamdi Azikiwe, Thabo Mbeki<sup>1</sup>, to mention but a few. The assertion above brings to the fore the importance and uniqueness of the mobile technology (MT) when adequately used by libraries and information centers especially in the developing states of the world. Hence, we librarians can proudly say we are informing the masses not some selected privileged few.

## REFERENCES:

- Aldrich, Alan (2010). *Universities and Libraries move to the mobile web*. *Education Review Online* [online]. [accessed: 10.03.2013]. Available on WWW: <<http://www.educause.edu/ero/article/universities-and-libraries-move-mobile-web>>.
- Allen, R.E (1984). *The Pocket Oxford Dictionary of Current English Oxford*. Clarenjon Press, p. 421.
- Amuna, S.A; Niran, A.; Sule, O.E (2014). Mobile Technology and Information Service Provision: Perception of Library Users in Selected Universities. *Global Educational Journal of Library and Information Science*, vol. 2 (2).
- Barile, Lori (2011). Mobile technologies for libraries: A list of mobile applications and resources for development. *College and Research Libraries News* [online], vol. 72 (4), pp. 222-228 [accessed: 10.03.2013]. Available on WWW: <<http://www.crln.acrl.org/contents/72/41222.full.html>>.
- Blurton, C. (1999). Chapter 2: New Directions in Education. In: *UNESCO's World Communication and Information 1999-2000*. Paris: UNESCO, pp. 46-61.
- Eyitayo, Samuel. A. (2012) Developing a New Generation of Technology Savvy and Future-ready Librarians in Nigeria: Today Resources, Dimensions. In: *Trends in library and information science in Nigeria*. Festschrifts in honor of Prof. Sam E. Ifidon. James O. Daniel et al (eds). Lagos, Elis Associates, pp. 149-182.

---

<sup>1</sup>Kwame Nkrumah was a foremost African freedom fighter, first indigenously elected president of Republic of Ghana. Nelson Mandela was a foremost African freedom fighter, first indigenously elected president of Republic of South Africa. Obafemi Awolowo was at the fore front for Nigerian independence. Leader of Opposition Federal House of Parliament, during Nigeria first republic. Nnamdi Azikiwe is a foremost African freedom fighter, first indigenously elected president of Republic of Nigeria. Thabo Mbeki is a foremost African freedom fighter, presently the elected president of Republic of South Africa.

- Griffey, Jason (2011). *Mobile Technology and Libraries Journal of Medical library Association* [online], 99 (2), p. 172 [accessed: 11.01.2013]. Available on WWW: <<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3066583/>>.
- Iwhiwhu, Basil, E.; Ruteyan, Josiah, O.; Eghwubare, Aroghene, (2010). Mobile Phones for Library Service: Prospects for Delta State University Library, Abraka. *Library Philosophy and Practice*, vol. 12, no. 1, pp. 1-8.
- LRCN Annual Report (2013). *Lists of Certified Librarians in Nigeria* [online]; [accessed: 11.06.2014] LRCN: Nigeria. Available on WWW: <<http://www.LRCN.gov.ng/bulletin.html>>.
- Obaseki, Tony I. (2014). *Availability and Use of Electronic Information Resources and Service Rendering in University Libraries in South-south, Nigeria*. A Ph.D thesis submitted to the department of Library and Information Science, University of Nigeria, Nsukka.
- Ochogwu, M. G (2007). The internalities and externalities of library and information delivery services in Nigeria by the year 2015. *Nigeria Libraries, Journal of the Nigerian Library Association*, vol. 40, pp. 15-27.
- Thomas, L.C. (2011). Libraries, Librarians and Mobile Services. *Bulletin of the American Society for Information Science and Technology*, vol. 38 (1).

*Artykuł w wersji poprawionej wpłynął do Redakcji 3 listopada 2014 r.*

V. N. NWACHUKWU  
School of Library and Information Science  
University of Nigeria, Nsukka  
Nigeria  
e-mail: victor.nwachukwu@unn.edu.ng

TONY I. OBASEKI  
Ambrose Alli University Library  
Ekpoma  
Nigeria  
e-mail: aligaji4@yahoo.com

**TECHNOLOGIE MOBILNE W ZASPOKAJANIU POTRZEB  
INFORMACYJNYCH UŻYTKOWNIKÓW BIBLIOTEK  
AKADEMICKICH Z PUNKTU WIDZENIA BIBLIOTEKARZA**

SŁOWA KLUCZOWE: Era informacji. Globalizacja. Postęp technologiczny. Technologie informacyjne i komunikacyjne. Transakcje informacyjne. Piśmienni rzemieślnicy. Współpraca międzynarodowa. Marketing.

**ABSTRAKT: Teza/cel artykułu** – Niniejszy artykuł stanowi dogłębną analizę poglądów bibliotekarzy w związku z zastosowaniem nowych technologii, takich jak technologie mobilne, do realizacji usług bibliotecznych w erze informacji i globalizacji. Autorzy podkreślają, że biblioteki i bibliotekarze w krajach rozwijających się mogą znacznie przyczynić się do społecznego, ekonomicznego i infrastrukturalnego rozwoju ich państw. **Metoda badań** – W artykule odnotowano zmiany w technologiach informacyjnych i komunikacyjnych dostępnych w bibliotekach oraz potwierdzono stopniowy postęp technologiczny i przejście od technologii widzialnych do niewidzialnych, a także od stacjonarnych do mobilnych. Technologie mobilne (iPady, iPody, iPhone'y) stały się częścią codziennego życia, a ich powszechne użycie odsuwa w niepamięć fakt istnienia komputerowych stacji roboczych i laptopów. Zastosowanie technologii mobilnych poszerza się nie tylko dzięki ich wykorzystaniu przez piśmiennych naukowców, lecz także ich używaniu przez piśmiennych rzemieślników do komunikacji społecznościowej online. Trend ukazany w artykule pojawia się zarówno w krajach rozwiniętych, jak i rozwijających się, wskazano jednak, że technologie mobilne są o wiele skuteczniej wykorzystywane do transakcji informacyjnych i dostępu do zasobów informacyjnych w krajach rozwiniętych. Powstaje zatem wyzwanie dla bibliotekarzy związane z zadaniem wdrażania technologii mobilnych w realizacji transakcji informacyjnych. Problemy wynikające z niedostatecznych umiejętności technicznych, ograniczonych pasm dostępu do Internetu, braku odpowiednio wykształconych pracowników w bibliotekach, braku współpracy, nonszalanckiego stosunku bibliotekarzy do innowacji w bibliotekach, niedostatecznie rozwiniętego marketingu bibliotecznego, przestarzałych sieci komputerowych w bibliotekach, znacząco upośledzają zastosowanie technologii mobilnych w realizacji usług bibliotecznych. **Wyniki i wnioski** – Uznano, że krokami ku rozwiązaniu problemów zidentyfikowanych w artykule są: współpraca bibliotek w formie wyjazdów szkoleniowych dla pracowników (szczególnie pomiędzy krajami rozwiniętymi i rozwijającymi się), odpowiednie finansowanie bibliotek i szkoleń dla bibliotekarzy, właściwy marketing bibliotecznych zasobów i usług oraz poszerzające się lobbowanie rządów państw przez zwierzchników bibliotek, w sprawie lepszych ofert dla bibliotek.