

**INFORMATION BEHAVIOUR IN THE WAKE OF INFORMATION AND COMMUNICATION
TECHNOLOGIES TOOLS IN ACADEMIC LIBRARIES IN NIGERIA**

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Abstract

The rapid development in Information and Communication Technology (ICT) has had a huge impact on acquiring, processing, storage, access, and disseminating information. ICT has also introduced a paradigm change in information behaviour, introducing efficiency, effectiveness, saving time and cost. There is, therefore, the need for information professionals today to re-examine the information user behaviour to seek information services to ensure that the design and provision of information match the need of the modern information user. This paper examines the role ICTs play in information access and application of information by the user today and what the professional information needs to do to leverage these developments. ICT tools in University libraries is increasing very rapidly in various university libraries. The use of ICT application in University libraries lends itself to more student-centered learning settings and often this creates some tensions for some users. But with the world moving rapidly into digital media and information, the use of ICT application in University libraries is becoming more and more important and this importance will continue to grow and develop in the University libraries.

Keywords: University Libraries, Information Communication Technologies, Information behaviour, Future trends

Introduction

Advancement in information and communication technologies has contributed to change in all aspects of human life, be it in communication, education, economics, domestic activities, commerce, banking, health, social networking, employment, among others. In terms of information management, ICT has offered today's information seekers different opportunities to access information resources in various formats, including electronic information sources (Kadli & Kumbar, 2011). Users can access any information anywhere and anytime. Information, news, views, etc., can be shared by people worldwide with the Use of email, social media networks, discussion groups on the internet. This information availability has created awareness of global matters such as cultures, lifestyles, religions, ideologies of different communities in what is today known as the global village (O'Byrne & Hensby, 2011). The increased availability of information has resulted in a shift in information-seeking activity, with many different forms of information in many different locations, all accessible in one place. This paper aims to discuss the impact of ICT on information-seeking behaviour today.

University library is a kind of academic library that serves the information needs of the university community through provision of information resources that supports learning, teaching and research. The university library is usually centrally located where students can access the library with ease. The primary aim of a university library is to promote and support the objectives of the university which is based on learning, teaching, research and services. The library is highly regarded as the heart and brain box of the intellectual activities of the university. Aina (2004) asserts that the quality of a university is measured by the services provided by the library because of its unique position in the over-all university system.

The effectiveness of a library as an instrument of education is determined by the success with which the library is able to provide and satisfy user's information needs. The 21st century is regarded as an era of

information revolution. Advances in information technology have led to far-reaching developments in higher education sector; an example of which is the application of digital information in learning. Libraries and information centres in Nigeria are not only equipped with materials that are in traditional format but also in electronic formats: they offer users a vast selection of information resources. Before the emergence of ICT, the functioning of libraries in Nigeria has been cumbersome, time-wasting, without giving any room for flexibility. But with the introduction of ICT in Nigeria, particularly at the higher educational institutions there is simultaneous access for many users at the same time and it helps to close the global information gap and create brighter future for students (Omagbemi, Akintola and Olayiwola, 2004).

Information and communication technology, usually abbreviated as (ICT) is often used as an extended synonym for information technology (IT). Bappah (2010) defined "ICT as a broad-based term that encompasses the gathering (acquisition) organization (packaging), storage and retrieval (dissemination) of information that can be in textual or numerical (books, documents), pictorial and vocal forms (audio-visual) or a combination of all the above (multi-media), using a combination of computers and telecommunications telephony distance learning". According to Harrison (2000), technology is the use of scientific equipment and human resources to meet a human need or a human goal. Information on its own side is what can be communicated and understood. Communication (from Latin communicate, meaning "to share") is the act of conveying meanings from one entity or group to another through the use of mutually understood signs, symbols, and semiotic rules. Therefore, information Technology (IT) which is the same with Information Communication Technology can be defined as the use of Information in order to meet human need or purpose with reference to the use of contemporary devices such as the internet and computer (Stosic & Stosic 2015). ICT is defined as a variety of tools and technological resources used to communicate, create, disseminate, store and manage information (Bolu, 2011). These technologies include computers, Internet, broadcasting (radio and television) and the telephone all are used for sharing of information.

Information and Communication Technologies (ICTs) are referred to as the varied collection of technological gear and resources which are made use of to communicate. They are also made use of to generate, distribute, collect and administer information. ICT is a force that has changed many aspects of the way we live. Information and Communication Technologies consist of the hardware, software, networks, and media for collection, storage, processing, transmission and presentation of information (voice, data, text, images), as well as related services (Tofi 2019). ICTs can be divided into two components, Information and Communication Infrastructure (ICI) which refers to physical telecommunications systems and networks (cellular, broadcast, cable, satellite, postal) and the services that utilize those (Internet, voice, mail, radio, and television), and Information Technology (IT) that refers to the hardware and software of information collection, storage, processing, and presentation.

Information-Seeking Behaviour

Information behaviour from the user's point of view presents why a user seeks information, processes it and uses it. It also involves the kind of information that the user seeks and in what ways/means such information is sought. Information behaviour is largely influenced by information need causes which means that these two concepts complement each other. A user uses various methods to express an information behaviour such as reading printed material, research, experimentation and most recently from searching the internet (Kadli & Kumbar, 2011). They continue to assert that Information-seeking behaviour depends on seeking information behaviour is geared towards solving a problem. Identifying a knowledge problem, analysing to find potential solutions, and evaluating the findings before repeating the process is all part of the process. Numerous theorists have characterised information-seeking behaviour as a complex intellectual process. They claim that the mechanism is a fundamental activity in which all people participate in their lives and manifest in a specific behaviour. It is also a component of information professionals' scholarly work who aim to create collections, programs, and organisational frameworks that make it easier to find information. (Kalervo Järvelin, 2004; Kuhlthau, 1991; Patel, 2017).

Role of ICTs in information behaviour

Information seeking is the process that humans engage in to change their state of knowledge. It is a high-level cognitive (mental) process that is part of learning or problem-solving in human beings. To seek information implies the need to change the state of one's knowledge (Kuhlthau, 1991). Kadli & Kumbar (2011) agree with the assertion by stating that information-seeking behaviour involves personal reasons for looking for information, the kinds of information being sought, and the ways and sources with which needed information is being sought. They are, however, quick to add that searching for information, which is most of the time confused with information-seeking, becomes part of the information-seeking behaviour.

Today, users progressively use the traditional formats of information as we know them (books, magazines, journals, newspapers, etc.). Most users have changed their preferred way of seeking information from print materials to electronic sources (e-books, e-journals, databases) Uses of internet is commonly the first or the only means for finding information. The increase in information available on the internet has affected information-seeking behaviour, with many types of information in many different locations, all available at a click of a button.

This is corroborated by various studies that have shown that most users prefer the Use of electronic information sources for their information needs (Jadhav, 2017; Kadli & Kumbar, 2011; Kalervo Järvelin, 2004; Khan & Shafique, 2011). Therefore, ICT plays an immense role in information sourcing, generation, processing, storage/retrieval, dissemination and application.

Technology has resulted in time savings, faster processing times in the pursuit of information, requests for and delivery of information, and many more. The Use of ICTs is vital in time management and bringing about a qualitative change. Indeed, Balasangameshwara (2015) and Jadhav (2017) support this by stating that ICTs significantly decrease the time spent to deliver information. The users also spent a lesser time obtaining the needed information by using ICT than using the traditional methods of information seeking. Hence, information professionals must leverage relevant ICT in their information management activities to promptly receive the information. The advancement in hardware, software and telecommunication networks has made computers affordable and useful to users of information. Today, ICT gadgets such as computers, laptops, internet, mobile phones, tablets, etc., are available in our lives. Internet connectivity has also become more available and affordable. In the last few decades, ICT has become a necessity rather than an exception. ITU estimates that at the end of 2019, 4 billion people worldwide were using the Internet (ITU, 2021). A challenge for the information professionals, therefore, becomes how to meet the demands of Internet users in their search for information in a cost-effective way and to ensure that the search strategies employed by clients are both efficient and return quality results that satisfy user requirements.

ICTs have also introduced new communication methods that have offered the users more options to use to fulfil their information needs. The availability of media like search engines, databases, internet groups, social media, email, mobile phones, radio and television offer the opportunity to interact with other users and exchange information on different subjects (Ruthven, 2010). Hence, the information professionals need to provide and facilitate the Use of these new ways of communication to the user to obtain what they are looking for faster and efficiently. The prime function of any information professional is to provide efficient services to its users. The ICT revolution has facilitated the information management processes; ICT improves the efficiency of the way information is gathered, processed, disseminated and retrieved, and the capacity to respond to users. The Use of ICT in library functions, especially collection creation and management, has enabled information professionals to carry out their duties efficiently (Kalervo Järvelin, 2004; Kuhlthau, 1991; Pareek & Rana, n.d.; Ruthven, 2010; Sakarkar, 2015). A challenge for information professionals today is deciding how to meet the demands of consumers in their quest for information in a cost-effective manner and ensure that clients' search methods are both productive and return quality results that fulfil user requirements.

Challenges of ICTs in Information Behaviour

ICTs have been hailed as the game-changer in changing information behaviour, many users and information professionals continue to face challenges that stem from the same technological advancements. Some of these challenges are inadequate resources for training, limited availability of technology, in some cases, lack of understanding of the contribution they can make to the effectiveness of information provision (iKNOW, 2019). Other researchers have cited other challenges like lack of skills, the digital divide (due to social/economic status causing the information-rich and information-poor), the education level of the users, technophobia, obsolescence of hardware and software, unreliable networks, the privacy of users as well as cyber security (ITU, 2021; Mills et al., 2013; Pareek & Rana, n.d.; Ruthven, 2010)

Any discussion on information behaviour will be complete without the issue of intellectual property rights. Information professionals today are grappling with this issue in the wake of technological advancements. In the process of seeking, utilising and disseminating information, information professionals and users alike become vulnerable to infringement of intellectual property rights (Sinha, 2015). As a result, information professionals' position becomes crucial in addressing this problem and educating users about how to avoid infringing on others' intellectual property.

Technological development has led to an information explosion, the rapidly increasing amount of information available to the user. As this amount of information increases, the challenge of managing it more apparent, which can lead to information overload. This leads to having too much information to the user that they cannot make decisions or remain informed on an issue. (Kadli & Kumbar, 2011; Strother et al., 2012). Indeed, the World Health Organization (WHO) states that the Covid-19 outbreak worldwide was accompanied by a massive over-abundance of information – some accurate and some not – that makes it hard for people to find trustworthy sources and reliable guidance need (World Health Organization, 2021). This information explosion and information overload call for studying the information needs and seeking behaviours of different groups of users.

Emerging Trends in ICT and Information-Seeking Behaviour

ICTs continue to develop and advance each day. ICT has changed the lifestyle of people and how they interact. This includes how they seek, access, apply and share information. Various Technological trends like mobile networks, cloud computing, social media, ubiquitous computing are developing quickly. Block chain -is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system (Marchionini & Komlodi, 2009; Mills et al., 2013).

Cloud computing enables users to share hardware and software resources as a service over the internet. Mobile phones enable the user's access information using handheld mobile devices like smartphones, tablets, iPads etc. Users will connect worldwide using social media platforms such as Facebook, Twitter, WhatsApp, YouTube, and LinkedIn. Internet is a network of a large number of objects, computing devices embedded with microchips, sensors, actuators, making this world a smart place to live.

In telecommunications, 5G refers to the fifth-generation technology standard for broadband wireless networks, which cellular phone companies started implementing globally in 2019. It is the proposed counterpart to the 4G networks that link most existing mobile phones. 5G networks are predicted to have more than 1.7 billion subscribers worldwide by 2025 (GSM Association, 2021).

Another emerging issue is cybersecurity. This issue has attracted attention due to its sensitive nature. Information professionals are grappling with the challenge of ensuring that the users are protected against the criminal or unauthorised Use of their data or that the information shared is not misused (Kumar, 2016). Information professionals need to ensure that the users can cope with the challenge and make sense of the advantages brought about by ICT in seeking information for their users. Continuous training for librarians and users is needed to be prepared with the skills necessary to deal with automation issues in their libraries.

Conclusion

This paper discussed the role of ICTs in information behaviour. The paper concludes that ICTs are here to stay, and the best we can do is leverage them to reap their best benefits. If used appropriately, ICTs could augment traditional library functions, which may, in turn, affect users' access and ability to use information. In this regard, the library's public awareness service is crucial. A curriculum for information literacy should be started at the library. It is important for the library to periodically inform users about the various forms and types of sources created by the library. These developments require a paradigm shift in how information professionals meet the demands of the modern information user.

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