The Triad of Technology, COVID-19, and Psychology of User Behaviour: The Reality for Academic Library Services

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Abstract: Library user behaviour has diminished over the years chiefly due to the advent of technology that orchestrated mutated user behaviour such that the user has tended to be self-sufficient in information search, retrieval and usage. Also, COVID-19 pandemic shut the doors to libraries against those that still patronize libraries. Consequently, the effect of the complete lockdown of academic libraries on researchers and students who depend on a wide array of library information resources for research and daily survival would be tremendous. The paper therefore, adopted descriptive survey research method to discuss the library situation in relation to technology and COVID-19 on the psychology of library user behaviour. Related literature were reviewed in conjunction with psychological concepts in explaining the perception and consequent behaviour of information users arising from the impact of COVID-19, and technology on library users. The study opined that libraries should constantly review and appraise their services to reflect changes in information needs of the users and society at large. The study proffered methods to ensure library services that appeal to the perception of the users; also, innovations such as mobile applications and artificial intelligence were recommended to be beneficial enhancing library services delivery. The study further suggested the way forward towards rendering impactful library services.

Keywords: Library Services, Technology, COVID-19, Psychology of User Behaviour, Information Use

1. Introduction

User behaviour is a major concept that has continued to feature prominently in the literature of librarianship. It is particularly concerned and most significantly associated with the changes that occur in the behaviour (psychology) of library users within any given time that are with certain occurrences. The advent of technology further orchestrated mutated user behaviour such that the user has tended to think that they are self-sufficient in information search, retrieval and usage. There has been continuing interest and concerted effort by professionals in librarianship to redefine and evaluate library services to suit their users' expectation. Indeed, researchers agree that the exponential advancement and development of the web, internet, and ICTs would accelerate unplanned obsolesce of physical library materials in the future [15, 6]. It was observed that the physical bank, previously, is one filled with bankers, and people in the banking hall had evolved into automated teller machines, and bankers who work in the backroom somewhere out of sight (IT administrators); yet there is still something called banking [15]. This is the situation that is envisaged to be the future of libraries. However, while libraries in developed countries are rising to the occasion by embracing library remote services application and adaptation of service delivery aided by artificial intelligence/robotic machines, their counterparts in most developing countries have been compelled to rethink their mode of library operations. Consequently, librarians embraced apo-mediation role acting as mediators between the user and myriads of information resources [11].

There has been a clamouring for the adaptation of an all online-operated or hybrid library system, with increased need

for information, since the world has been plunged into dilemma due to the outbreak of Corona Virus Disease (COVID-19), which has caused a pause on social activities in institutions globally, including closure of most tertiary institutions. Clearly, any decision to restrict services or close a library is a difficult one and needs to be taken following an assessment of the relative risks [10]. However, in most developing countries libraries are totally closed, while their counterparts in developed countries are able to provide some essential services to users, remotely.

However, the outbreak of COVID-19 pandemic, has stalled the provision and access to information resources as most libraries are completely shut down. Researchers, students, and the user community now mainly rely on social media and other forms of informal sources of information. It should be noted that credibility of such information from these media platforms is rarely assessed and this could pose some danger to decision makers who use such information, thereby, adding credence to the fallacy of 'everything is on the web', and the erroneous feeling of self-sufficiency in information search, retrieval and usage, and the predisposition of users [17]. This has, consequently, provided yet another era of rethinking the philosophy of operations and information provision in libraries. This study was, therefore, undertaken to explore the impact of technology and COVID-19 situation on library users' perception (psychology) of the library services.

2. Literature Review

The world currentlyhas been stunned with fear, witnessing a very difficult phase in our history due to the outbreak of the novel Corona Virus Disease (COVID-19). The novel coronavirus was first discovered in Wuhan, China on December 31, 2019, when health authorities in China reported that dozens of persons in Wuhan, were being treated for a strain of pneumonia from an unknown source. Thus, on January 11, 2020, China recorded the first death in Wuhan from this disease, and it became the epicenter of the outbreak. China took aggressive preventive measures on January 23, 2020, to containment of outbreak. These measures include: suspending flights and trains and shutting down subways, buses and ferries in an attempt to stem the spread of the virus. The virus has no known vaccine at the moment, and with many deaths recorded, medical professionals recommended social distancing, strict personal hygiene, and lockdown of social life as the best precautionary measures. Consequently, nearly all the countries of the world embarked on lockdowns to curb the escalation of the transmission among the citizenry.

Similarly, Nigeria officially recorded its first case on February 28, 2020, and embarked on complete lockdown of social activities to stem the spread and prevalence of the virus. Social institutions such as schools, churches, offices, entertainment areas, parks, sport, and relaxation spots among others were directed by government to lockdown, allowing only skeletal, essential and emergency services to function in order to avoid total collapse of social, economic and political structure. The interconnected nature of the world today makes information a modern day-to-day survival tool [5], and limiting information only by physical access to those who need it, is synonymously equivalent to closing up the hospitals at the peak of a pandemic. This, undoubtedly, has a substantial influence on library user behaviour given the impact of COVID-19 on the increased users' information needs, since several nations are still struggling with the disruptions caused by the pandemic and its containment measures.

Due to these disruptions, many developing countries are most likely to encounter serious challenges on the patronage and utilization of library information services. Yet information needs of the society have continued to increase given the current situation and as characteristics of man to always seek answers, to find solutions to problems. It is, therefore, expected that the pandemic might have long-lasting consequences on the psychology of library users, understanding user behaviour, depending on how relevant the user perceive the library on account of the prolonged stress of the pandemic, as well as information and economic losses resulting from the dependence on unverified sources of information.

Consequently, the effect of the complete lockdown of academic libraries on researchers and students who depend on a wide array of library information resources and services for research and daily survival would be tremendous. Globally, librarians are concerned that, for most users, the duo of the internet and World Wide Web are creating a monopoly of information handling (creation, sharing, retrieval, and usage). The ubiquity of the internet has affected not only how patrons use (or do not use) the library, but also how they conceive the library and information, and perhaps, more importantly, how they perceive themselves as entirely self-sufficient in information retrieval process [17].

3. The Psychology of User Behaviour (The Enigma of Perception)

Perception is the sum total of belief held by an individual consciously and unconsciously towards a person, situation, event, or phenomenon [18]. Perception is usually the resultant of relative situation of observation. Behavioural evaluation of individual on situation based on behavioural change demands manipulation and assessment [7]. This means that behaviours can be learned. Behavioural theorist [2, 13, 16] opined that people learn from their experience. They explained that much of the behavioural responses exhibited by individuals are being conditioned by events from our background and early experience. Individuals learn from their daily experience, encounter new situations, responding in the ways we think best suit the occasion and accumulating knowledge of the likely consequences to our behaviour [12]. This means that behaviours and reactions towards events are products of interaction with the human and non-human elements in the environment.

Arising from the foregoing, the introduction of technology in operations around the world has conditioned users to adapt to its tools. It is expected, therefore, that librarians should key in and provide services in line with what is obtainable in the environment. The library is not just "the room where the books are," but the entry point for new, innovative technologies, as well as the hub from where those new technologies are introduced to the entire world [5]. The author further explained that it is of little wonder that librarians should find themselves in the midst of a professional identity crisis amidst cultural, social, economic and technological changes of such sweeping proportions. To this end, libraries should constantly grow in response to societal challenges in the wider context. Understanding the library's current situation from the triad of COVID-19, technology, and psychology of user behaviour, the intricacies of technology (neutral stimulus) and the concept of prosumer (simultaneous information user and creator) have classically conditioned users to depend on the internet/web for their information needs and services (conditioned response), neglecting the impeccable role of the library (unconditioned stimulus) in providing refined information services (unconditioned response). Based on this premise, libraries embarked on massive campaign for enlightenment on the role of library in the search, retrieval and use of information as apo-mediators between users and multiple information sources such as search engines, electronic resources and databases among others.

The outbreak of COVID-19 and its consequences therefore, has further compounded the whole situation. The great flood of information and the need to avoid keeping backlog of unprocessed materials, as well as the need to make information accessible to researchers in remote site and satellite campuses of universities have necessitated newer and faster techniques of processing information [1]. Libraries leveraging on their ICT skills have pivoted their web-based resources to address the specific challenges of the pandemic. Thus, most academic libraries across the globe published research and literature guides to provide virtual library services. Public libraries provided links to authoritative sources for local, state, national, and international information on the spread of the virus and measures taken by government and health authorities [14].

In the face of COVID-19 circumstance, library professionals demonstrated their skills, empathy and flexibility during lockdown to respond to the rapidly evolving situation [4]. The authors explained that in such circumstances, the website is an essential and dynamic platform to connect and serve the targeted users. However, it is opined that library in developed economies have developed fully integrated computer systems, while in the developing countries, there are cases of partial, abandoned, or non-functional automation projects [6]. The author asserted that the functions of library management software are abysmally under-utilized in academic libraries in Nigeria, and thus, progression of online library service delivery remains a swinging pendulum.

4. The Way Forward – Library Services for Mutated Users

Evidence from reports, librarians' meetings, seminars, conferences, and publications have shown that most libraries are only planning safety measures for reopening, while perception (psychology) of users are barely considered [10, 9, 3, 14, 8]. Users are major stakeholders of the library as they are the end-users of the library products. Considering how behaviours are formed through interaction with the environment where desirable results are obtained at ease and for free, it is proposed that, to remain relevant in the scheme of information management and provision, librarians should adopt teaching strategies to conveniently serve as effective apo-mediators between the users and the varied information sources. Librarians can implement behavioral learning techniques in their provision of information services through:

1) Drills - librarians may impart information retrieval skills using drill patterns to help students see the repetition and reinforcement that behavioural learning theory uses. When repeated activities yield desirable result, habits are formed. Librarians could harness social media and other communication platform to mediate between users and information resources while infusing information literacy skills in the relationship. This would instill information credibility assessment in users thereby buttressing the usefulness of information services beyond accessibility of information resources provided by the library.

2) Question and answer - librarians can use a question as a stimulus and an answer as a response. This is the format most information search engines employ. At the click of a button, users are flooded with information from remote locations. Librarians could maintain an online presence to render electronic reference services to aid users select the relevant information among many suitable options.

3) Guided practice - librarians can be directly involved in helping users go through problems to give them the desirable reinforcement. Since the philosophical change in library service from collection-based to client-based, the problem is no longer unavailability of information resources but smooth navigation within the varied sources of information to the right information required. The internet is flooded with information resources that could be advantageous or pose a threat depending on the manner of use and application to knowledge base. Consequently, it is envisaged that librarian should serve as mediators between users and available information resources [11].

4) Regular review - reviews are important for effective services. Going back over materials and services provided to users is very crucial. Information users are major stakeholders in the information business. Librarians must always review their services and align them with technological advances and emerging

information needs and user behaviours obtainable in their community and society at large.

5) Positive reinforcement – the society is experiencing exponential growth orchestrated by technology leading to mutated information behaviour. Most times, in contending with numerous information resources on the internet/web, librarians are faced with copyright issues. Libraries can adapt specialized applications that regulate user instructions tied to most electronic information resources to provide these services seamlessly, without infringing on the copyright laws associated with these protected resources.

6) Applications, social media and artificial intelligence – libraries should consider embracing ICT as an auxiliary information provision platform, to ensure unrestricted information services to the patrons. Majority of the subscribed e-resources are IP bound due to the policy of usage. However, platforms such as library applications, can assist libraries manage the terms of usage for each user while they access these e-resources from remote locations. Also, as libraries consider full reopening to the public, artificial intelligence such as voice-controlled search can be helpful in a number of ways in navigating the shelves.

5. Conclusion

Library services are crucial to the survival of every human society. This realization has consistently impacted on the acquisition, preservation and dissemination of information resources in libraries and user behaviours. With the current need and attention to information, the library philosophy has shifted from resource-based to client-based such that the need of information users becomes a deciding factor in the design of any library service. In cognizance of this, this study explored the impact of technology and COVID-19 situations on library users' perception (psychology) of library services. The study observed that information need behaviour is a product of users' behaviour which is formed from the perception of varied factors. Therefore, the study opined that libraries should constantly review and appraise their services to reflect the changes in information needs as well as environmental changes. The study further suggested the way forward with rendering library services for efficient and effective information services delivery.

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