

TOWARDS EXPLOITING THE POTENTIALS OF DIGITAL TECHNOLOGIES FOR EFFECTIVE LIBRARY AND INFORMATION SERVICES

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Introduction

Undisputedly, the 21st century has strategically enthroned automation over mechanisation and manual approaches to doing things with the continued advances and application of ICTs in the methods and practices of information and knowledge management to cope with the changing needs, expectations and information seeking behaviours of individuals and organisations in the emerging information society/digital age. Unlike the technologically advanced nations that are already at the arena of the digital age, the expectations for developing countries such as the African sub-regions should tactically aim at a paradigm shift in information services provision and management by effective utilisation of the potentials of ICTs. Ideally, a national Information Technology (IT) policy applications and utilisations should address strategic national development indicators such as: human resource development; infrastructure; governance; research and development; health; agriculture; urban and rural development; trade and commerce; fiscal measures; government and private sector partnerships; art, culture and tourism; national security and law enforcement; legislation; global considerations; IT popularisation and awareness; and policy implementation.

Any discourse on acquisition of digital literacy skills and competences by information services providers and managers, of which librarians are part of, need to be situated within the frame work and perspectives of effective exploitation and utilisation of Cloud Computing potentials. It is by and large greatly dependent on several computing devices operating in unison regardless of their location and extent of the inter-dependence of the devices. Essential, it is effective to remotely store/house, secure, retrieve and access given information, data or document domiciled on the Internet by a client as against what is on one's PC and mobile devices or on an institution's server. Generally, cloud computing aims at reducing library operations and services provision costs and risks, especially in relation to systems computing; Internet connectivity; intra and interconnectivity of libraries' and information centre's sites, systems and services provision; collaboration among libraries and information centres; storage capacity limitations; information and document security and access; etc.

You do not have to agree more with me that Information and technologies (ICTs) are rapidly revolutionising the world landscape to cope with the challenges of the emerging vista of digital society that is continually impacting on all sectors of the economy which include but is not limited to socio-economic, political and cultural growth and advancement of societies and their people. This is especially through the exploitation of smart technologies and provision of cloud technology-oriented services to all and sundry regardless of their locations and times of access. While communication far , wide and near has been made easy through utilisation of smart phones, the Internet and other web technologies and tools; the common every day and routine activities have also been transformed into online- based activities. These advances have led to the transformation of various administrative and service platforms into what is now known as e- government; e-business; e-banking; e-marketing; e- commerce; cyber talks and squatting; e-document; e-library; e-ticket; e-services; e- transaction; e-mail; e-money; e-learning; and e-voting; e-conference and lecture; e-political campaign; e-examination and interview; e- application and registration; and e-payment; etc. which can take place at the convenience of the target customers and other relevant stakeholders regardless of their locations, time of need, access and utilisation.

From the foregoing, it could be concluded that the ICTs will continuously impact much on information availability, access, retrieval, use, dissemination and storage in all sectors of the economy and in all progressive establishments and institutions. In the same vain, such impacts will also be continually felt and sustained much more in recurrent decimal regime due to the continued advances in ICT products, facilities, platforms and services supported by the Internet and other digital media. This is a significant stride as the ICTs have drastically changed the way and manner people behave and act in one way or the other- positively or negatively. You need not be reminded of how they have eased office works and operations, home activities and also promote communication and relationships among friends, families, employers, colleagues and compatriots irrespective of their locations and time of contact, especially through the effective utilisation of services of libraries, information centres and social media platforms which characteristically provide wide spectrums for information availability, access, utilisation, dissemination and storage both directly and remotely. With availability of information in variety of digital formats, the ability and capacity to effectively and efficiently access and utilise information will be limited only by the type and capacity of the ICTs in use, the format in which the information is contained and also by the user's ICT and information literacy skills and competencies. Essentially, it can be said that, the extent to which individuals, institutions and information service providers and agencies are capable and able to effectively exploit the digital environments, platforms and services occasioned by ICTs potentials will largely depend upon their information and ICT literacy skills and competencies. It is towards this end that progressive libraries, information centres, information service providers and managers, of which librarians form part of across the globe, have progressively transformed their information systems and services to provide, in addition to the traditional approaches, digitised information and online services of all sorts in real time at 24/7 regime to meet the information needs and expectations of their teaming customers.

The result of my situation analysis of the state of the art of ICTs deployment revealed that effective deployment and exploitation of the ICT technologies at various levels and platforms has facilitated organisations', institutions' and indeed the individuals' efforts to continuously generate, acquire, identify, locate, store, process, retrieve and access variety of data and information envisioned to be relevant and strategic to meeting their immediate and future needs and expectations; and also

package, transfer, provide, deliver and utilise them accordingly by the relevant stakeholders near, far and wide without recourse to location and on 24/7 regime. It has been observed that governmental and non-governmental institutions, organisations and agencies are steadily embracing the digital technologies and networks in their schemes of operations and services to cope with the challenges of the digital/information age (Mohammed (2015)). From both theoretical and practical perspectives, it is my submission that the extent of technology acceptance, adoption, application and utilisation for the management of public and private digital systems, operations and services can greatly be affected by the consequences of the implications of the impact of the psychology of and theories of management and practices particularly, as it relates to behaviourism (human- characteristics and attitudes), cognitivism (brain-based- human memory and perceptions) and constructivism (management- administrator's and operator's own construct of fulfilment, achievement, experience and perspectives). In like manner, I see that, technology adoption; acceptability, application and utilisation of digitised information systems management, functions, operations and services can significantly be affected positively or otherwise by variety of factors such as:

- ⇒ the peculiar predispositions of the management, administrator and operators, especially as it relates to digital skill acumen;
- ⇒ the prevailing circumstances surrounding the systems environments;
- ⇒ the stakeholders' perceived usefulness, relevance, availability, adequacy and appropriateness of the technology being adopted and adapted;
- ⇒ the type and functionality of the technologies in use; and
- ⇒ the extent of the information and ICT/digital literacy and skills competencies of the information service providers and managers.

Basically, the application and/or non-application of especially digital technologies to the management of information systems, operations and services can be influenced by:

- the operator's and user's characteristics, competencies, skills and experiences in using the technology;
- the type of technologies available, adaptable and useable;
- the type and feature of the systems environments;
- the users' perceived usefulness and relevance of the technology in actualising the mission, goals and aspiration of the project in one hand, and achieving their individual and collective objectives and aspirations on the other hand;
- the context of the vision, mission and objectives of the digital policy implementation project;
- the level of access and ease of use of the technology by the stakeholders;
- the perceived attitudes, experiences and opinions of others on the usefulness, relevance and ease of use of the technologies to achieve the desired target;
- the stakeholders' technology fluency, literacy and competence;
- the perceived levels of the stakeholders' skills, potentials, motivation, capacity, ability, willingness and readiness to effectively utilise the technologies;
- the perceived implications of the cognitive outcome of applying the technology; and

- the methodology adopted to effectively queue in the stakeholders to accept, adopt and utilise the technologies to achieve the vision, mission, goals and objectives in focus.

The repeated clarion calls and expectations of the contemporary information society on libraries and information centres to opt for ICT applications to their systems and services and indeed for information service providers and managers to possess some digital literacy skills competences are apt now more than ever before as they are still operating on very tight budgets thereby making it extremely difficult to cope with the purchases of especially foreign texts. Besides, it has been observed that, contrary to the UNESCO treaty on 0% duty on books of which Nigeria is a signatory, books are yet still said to be listed as one of the items on which import duty is to be charged 20% Tax and 30% Levy (50%) for imported books. Thus, libraries and information centres have to constantly strategise to be relevant and become indispensable in the schemes of the on-goings in the information society within the realm of information availability, access, utilisation and services provision in the contemporary 21st century especially by:

- identification and periodic review of the vision, mission, goals and objectives of library and information centre systems, operations services and management;
- identification and systemic observance of the critical values, culture, services and passion being cherished and shared in information services provision;
- identification of the essence of establishing and sustaining the library and information centre;
- determining what should be the modes and methodologies of library and information centre operations and services;
- identification of what the library and information centre customers really want or need to get information thirst satisfied;
- determining whether libraries and information centres must have to wait for each other to advance their cause of actions and operations at the same time in digital society;
- identifying where, when and how should library and information centre customers be effectively and efficiently served;
- identifying what should bring satisfaction to library and information centre authority, management, operators and customers continually;
- identifying what can make library and information centre to be irrelevant and inconsequential in the scheme of things in the information society;
- determining what can make library and information centre achieve a giant stride, maintain and sustain an infinite niche over competitors and contemporaries; and
- identifying the recurrent strategic challenges to successful advances in library and information centre.

The Way Forward

Arguably, from both theoretical and practical perspectives, it is apparent that, due to inadequacies of relevant digital technologies for education, teaching, learning and research in the Nigerian Library and Information Science Schools (LIS), what are normally being produced in the LIS schools (except for those who steadily utilise their personal initiatives and efforts privately) are mostly theoretical graduates who are not ideally practically grounded in their chosen areas of specialisation and are also not sufficiently exposed and familiar with the modern technologies needed to be relevant and

employable by the emerging employers of labour in the digital society(Mohammed, Z: 2015b). As a way forward, some of the basic questions the LIS schools, libraries and information centres and indeed information service providers and managers, especially those in the developing nations, have to constantly contain with so as to effectively and strategically move toward the right directions in the digital age are:

- when will libraries and information centres be willing and ready to have a paradigm shift to the world post book dynasty?;
- to what extent are libraries and information centres willing and ready to pierce through printed information, book and document inclined contents?;
- which information access options really matter to the information society customers to get out of confusion:-reading, seeing, hearing, touching or writing?;
- which is the best, cheapest and easiest option to present and provide information to the customers:- printed, visual, audio or audio-visual?
- what critical factors should be considered in the acquisition of digital literacy skills and competencies by information service providers, managers and customers?

Reference

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