

Towards Promoting Indigenous Knowledge through Innovative Tools and Strategies: The Role of the Academic Library

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ABSTRACT

This paper focuses on how to promote indigenous knowledge through the application of innovative tools and strategies by academic libraries in Nigeria. The paper X-rays the conceptual meanings of indigenous knowledge, innovative tools and strategies. It identifies use of social media platforms, websites, Google Docs as some of the innovative tools to be adopted in promoting indigenous knowledge. Talk-shows, lectures, incorporation of the teaching of IK in the curriculum of the library schools in Nigeria and organization of essay competitions on IK are some of the strategies to be adopted in order to promote the usefulness of IK to the world and local environments. The paper concludes that whenever Ik is given effective promotion locally and globally, the usefulness of Ik to economic and social cohesion of the people will be made more appreciated and meaningful.

Keywords: *Indigenous Knowledge, Innovation, Academic libraries, Innovative tools, Promotion*

INTRODUCTION

Although indigenous knowledge (IK) has not really been valued or propagated in the educational system of Nigeria, it is not out of place to state that Indigenous knowledge (IK) could be vital in the Nigerian educational system, human capacity building and economic development. Suffice it to say that knowledge about the natural world does not come only from science, but also from indigenous knowledge which is passed from generation to generation, generally by word of mouth and cultural rituals. Ik has played significant role in the understanding and interpretations that guide human societies around the world in their countless interactions with the natural environment, including hunting, agriculture and animal husbandry, fishing, gathering, and struggles against diseases and injury, naming and clarification of natural occurrence and strategies to cope with varying environments. UNESCO (2016), in its teaching and learning for a sustainable future, emphasizes that some of the objectives of IK is to appreciate indigenous views on ways of living together and using resources sustainably, to identify opportunities for integrating relevant aspects of indigenous knowledge and approaches to teaching and learning into the school curriculum. By

UNESCO's position, teaching and learning be it at primary, secondary and tertiary education may not make the desired impact if IK is relegated.

The concept and application of innovative tools and strategies and the diffusion and use of innovation have become a recent policy in fostering transformational change in knowledge (Edquist, 2005). Innovation is all about introducing essential and pertinent ideas and practices that are new and are likely to bring beneficial change in libraries. These propositions could lead to effective management of long-established and online resources, digitizing and changing information resources and bringing in of local collections in libraries (Onuoha, Anyanwu, Osai-Onah&Amaechi, 2014). According to Ekbor & Parellada, (2002), what characterizes an innovation process is making use of knowledge whether old or new in response to market opportunities or other social needs including the existence among diverse agents and complex interaction. The academic library could be a major player in the innovative process. That is why this paper focuses on discussing the role of the academic library in promoting indigenous knowledge through innovative tools and strategies.

INDIGENOUS KNOWLEDGE: A CONCEPTUAL EXPLANATION

Indigenous knowledge has its own system and method of preservation. It is often passed on from one generation to the next using oral tradition. This is known as the Indigenous Knowledge System (IKS). Mabawonku, (2005) in one of her write-ups, titled promoting indigenous knowledge publishing in Nigerian languages, appraised several ideas that are used synonymously with IK. These ideas are ethno science, indigenous knowledge, community environmental knowledge, technical knowledge, and people's knowledge. Indigenous knowledge is progressive, representing generations of occurrences, trial-and-error experiments and careful observations. It is a distinctive branch of knowledge that has developed across many generations in specific environs. It explains the social and natural environment; is built within its own philosophic and subjective system, and also includes first-hand working knowledge. It is distinctive to a particular culture or society (<https://www.researchgate.net>).

Claxton (2010) remarks that the word, 'indigenous,' means local or native to the people, the country, or the society concerned. Indigenous thus refers to things or people originating from a specific place and native to the area. In international discourse, the word indigenous is used to refer to the original peoples of a specific region, including local ethnic groups who are aware of their pre-colonial use and land colonization. The daily life and practical experiences of ordinary people in the community are what the indigenous knowledge is based upon since this is part and parcel of their life. Because of the fact that this knowledge is entrenched in the life of the people, it makes it very challenging to organize. But it is very necessary to embark on the organization so as to make better the comprehensive, social and economic development of the community and that of the nation in general. This life of the people or native knowledge one could say ranges from but not limited to environmental conservation, health preservation or maintenance, practices of various forms of medicine, sustaining agricultural practices and so on.

IK is found in people's memories and businesses and that is why when an elder dies, it is as if a library had been burned down. IK has many aspects such as public knowledge, values,

and religious beliefs, farming equipment, building materials, farming and health care research, flora and fauna, natural resources, artisan skills and abilities, education and data training. IK also includes, according to Nakata & Langton (2005), the awareness, practices and creativity of local and indigenous communities around the globe, formed from participation over the centuries and attuned to local culture and environment, conveyed orally from generation to generation. It is preserved in memories and experiences of people and is reflected in songs, stories, folktales, dances, proverbs, myths, values, cultural beliefs, community rules, customs, taxonomy and local language, tools, farming practices, resources, animal races and plant species.

Mwaura (2008) and Raphesu (2010) argues that indigenous knowledge (IK) has gained strength as an important resource for development in the lives of the greater part of the globe's population. This plays an important role in different aspects of life, such as poverty alleviation, rehabilitation, and natural resources management. It also assists in regional, national and international decision-making and problem-solving. Indigenous knowledge is therefore seen as the basis for self-determination, self-sufficiency and providing practical alternatives to western technologies.

However, because this knowledge is often lost,, there has been an increased international concern, especially on the world-wide-web on the need to incorporate and sustain the growth of indigenous knowledge in the educational system of nations. The global concerns on IK have not materialized due to apathy either on the part of the people or the government. Perhaps academic libraries through innovative tools and strategies may be the way out.

INDIGENOUS KNOWLEDGE, SOURCES AND IT'S RELEVANCE IN SOCIETY

There is very limited literature on different types of IK; however, Tavana (2002) talks of two types of indigenous knowledge—explicit indigenous knowledge and tacit indigenous knowledge. He identifies examples of explicit Ik to include reef fish names, bird breeding times, or how certain plants can be used for medicinal purposes. Explicit indigenous knowledge consists of "data, laws, relationships, and policies that can be faithfully codified in paper or digital form and communicated without the need for debate." (Wyatt, 2001). Smith (2001)

refers to explicit knowledge as 'academic knowledge or' know-how' defined in informal language, electronic or print media, often based on established working processes, using people-to-document approaches.' Therefore, direct aboriginal knowledge refers to traditional knowledge that is easy to articulate, convey, interact and document. The essence of explicit knowledge is that processing, sharing and interacting with others is simple. Mehta, Alter, Semali, & Maretzki, (2013); Tikai & Kama (2010) are concerned that the loss of explicit IK and indigenous contact is increasing, and the need for this information to be transmitted, preserved and maintained among indigenous communities is greater now than ever.

On the other hand, Smith (2001) posits that tacit indigenous knowledge refers to the practice-based "practical, action-oriented knowledge or know-how," learned through personal experience, seldom shared freely and often resembles instinct. Tacit knowledge is often difficult to express freely with words because it requires doing something without thinking about it, such as riding a bicycle. The very essence of tacit knowledge is that people's heads are difficult to extract. The author concludes that tacit Ik is rarely found in books, guides, archives or documents because it is based on mental models, principles, opinions, expectations, observations, assumptions and experiences. Tacit indigenous knowledge refers to the forms of traditional knowledge that outsiders cannot easily convey or articulate (Tavana, 2002). It is based largely on the feelings, experiences, perspectives, observations, and expectations of a person. According to Tsouka & Vladimirov, (2001); Tsai & Li, (2007), implicit knowledge acts as a framework for social practice and a basis for reform. Individuals gain a range of tacit knowledge by engaging in different social activities. For example, practitioners' tacit awareness becomes a source of ingenuity and motivation to see things in a new light and seek solutions

The indigenous knowledge system is the fulcrum upon which the IK of a people is sustained. Without indigenous knowledge system, people's indigenous knowledge will go into extinct. This is because indigenous knowledge comes from the indigenous people themselves who lubricate its existence and transmission, the people's technology such as their knives, hoes, bows and arrows, and other farming implements, community environment where the people are born, bred, learn their

culture, learn their lifestyles and ways of living, and even worship their God.

Indigenous knowledge is relevant to society, particularly local and developing areas of the world. It could provide a veritable basis for knowing and understanding the people- their culture and way of life through research. The use of IK in research also provides researchers with legitimacy and reputation and builds local capacity and empowerment which are some of the aspects of UNESCO's interest in indigenous people. Indigenous knowledge can provide valuable input for the effective use and management of local resources in the local environment. For instance, some locals use their indigenous knowledge to maintain and preserve their farm products, protect their environment through erosion control and flood, control animal and insect attacks and community sanitation. All these help the indigenous people to manage, sustain and advance the management of ecologically sensitive and socio-economic activities such as articles of trade, market regulations, and their norms, values, and moors. In addition, Ik helps people to maintain their cultural and religious equilibrium, ensure security of life and properties and facilitate inter-cultural understanding, control anti-social activities and abstain from socially and culturally abhorrent practices such as abortion, murder, kidnapping, robbery, cultism, etc. for instance, Echeruo (1981), in the inaugural Ahiajoku Lecture titled "A matter of identity" (AhamEfulé in Igbo), posits that the indigenous Igbo people abhors shedding of blood, ritual murder, armed robbery ETC, but values hard work, honesty and integrity.

For centuries, indigenous knowledge has helped and enhanced modern science and technology. In Pharmacological development, the medicinal properties of plants were also instrumental. It plays a crucial role in shaping and implementing policies and programs for sustainable development. It has a profound role in preserving the environment and encouraging sustainable ways of using a given people's natural resources for the common good of all its country. Developmental programs that operate with and through indigenous expertise also have several significant advantages over outside ventures (Noyoo, 2007). In all, Ik leads to the cultural, political, environmental and economic empowerment of the citizens.

INNOVATIVE TOOLS IN ACADEMIC LIBRARIES: WHAT DO THEY MEAN

Yen and Walter (2016), asserts that innovation in academic libraries may generally refer to evolving library services to meet users' changing needs; new and/or updated programs, include new digital technologies and support new teaching and research paradigms. Jantz (2012) defines innovation as 'the introduction into an organization of a new service, product, administrative practice, technology or a major improvement to any, some or all of these. Rowley (2011) as well as Islam, Agarwal and Ikeda (2015) argue that innovation is aimed at providing user-centered services in academic libraries that accept the opportunities offered by information technology (IT). Scupola (2010) emphasizes the importance of including users by explaining that technology is innovation in which users have contributed to the process of solving problems that leads to a solution. An example is when users are asked to explain their needs and concerns in face to face meeting and seminar to examine how the use the resources of the library.

Ranjaum (2009) affirms that innovation in libraries may involve the introduction of new services, the discovery of unmet user needs, or the reorganization of traditional services resulting in a better user experience; innovative collaboration among libraries or between libraries and other institutions; exploring the potential of libraries; implementing new technology to improve and expand library services to meet needs of users; redefining processes that promote new and better ways of making library collections and facilities more useful; integrating best practices from international libraries whenever possible. Tiwari (2016) states that a modern and important concept called library 2.0 has arisen with the use of web 2.0, this technology transforms the face of the library system and leads to digital library revolution. Library 2.0 offers library services in a way that allows users to access library resources within a reasonable time even from their homes. Library 2.0 which is an online library, service has a lot of benefits that can only be accessed through the use of computers as well as smart and android phones. Wenborn (2018) asserts that with the adoption of innovative tools, libraries have better access to educational materials and resources. Such advances also allow libraries to maintain and control their collections online more effectively thereby improving and redefining researchers' access.

The groundbreaking tool, which is increasingly centered on online asset accessibility, inevitably affects the role of library professionals. Librarians are encouraged to learn new skills to be able to implement new technologies for their patrons to know study and provide knowledge. Innovation will also lead to improvements in digital data processing, resulting in more precise search results and quotations for topics, thus allowing libraries to build and view relevant resources more effectively.

ACADEMIC LIBRARIES, INDIGENOUS KNOWLEDGE AND INNOVATIVE TOOLS AND STRATEGIES: THE SYNERGY

The Academic library occupies a central position in knowledge creation, preservation, dissemination and innovation. It is established to meet the information needs at the academia, government and industry. The academic library is an integral component of the information sector of any country or society. It provides access to information for the academic community. In this age of knowledge economy, libraries particularly academic libraries and librarians have much to do to reduce the gap between local people's use of Ik and scientific knowledge. There are so many acts or practices that academic libraries and librarians could perform in Ik's overall management to make documentation and dissemination of indigenous knowledge a reality. As Mabawonku (2002) remarked, there are definite roles that information professionals as development agents have to play in understanding, locating, collecting, interpreting, disseminating and preserving Ik. According to Ozioko, Igwesi & Eke (2011), libraries must have a new set of technical skills and competencies, such as web page creation, digitization skills, metadata management and web linkage, in order to maintain consistent and effective dissemination of our local content at a global level. Librarians can act as indigenous knowledge (IK) collectors, organizers, distributors, and mediators. Libraries are facing a new quest about how to manage Indigenous knowledge materials and to whom the materials should be made available to (Janke, 2005). Academic libraries can promote access to indigenous knowledge through the development of an environment that allows face-to-face forums and networking to discuss issues that may be useful to community members (Christopher, 2015).

To promote IK locally and disseminate it globally, the academic library would need to use a variety of innovative tools and strategies. These tools include ICT such as websites, open-access platforms, social media sites, collaborative research on Ik, etc. Academic libraries, through the use of Information and Communication Technology (ICT), should make different ways available for the dissemination of IK of local communities to a global audience. Such a move should guarantee the preservation of IK, and make the local communities become producers of knowledge and not just only consumers of knowledge (Tjiek, 2006). According to Adams, (2007). Librarians can use ICTs to capture, store and disseminate indigenous knowledge in order to preserve traditional knowledge for future generations; promote cost-effective dissemination of indigenous knowledge; create easily accessible indigenous knowledge information systems and provide a platform to advocate for the improved benefit from poor IK systems.

Social media platforms allow the creation and sharing of user-generated content by individuals and communities (Kietzmann, Hermkens, McCarthy & Silvestre, 2011). The rates of Internet penetration across the African continent are estimated at 15.6 million and continue to increase (Internet World Stats, 2012). Social media such as YouTube, Google Docs, Facebook, and Twitter can be used to develop, access, and share information or skills within and among broader audiences in Africa's social and geographic communities. Most social media do not require specialist skills or training; however, other social media applications require reading and writing skills, they are therefore only available to literate people and therefore limited to urban and educated rural populations. For instance YouTube makes it possible for people to upload post and view videos. YouTube is based on multimedia and can, therefore, be used by both analphabets and literate users. It is possible to upload recorded videos of aboriginal culture (music, dance, agricultural practice) on YouTube and display them in a library environment by local communities. Google Docs enables users to create or import spreadsheets, documents, forms, and presentations within the application itself. It is also a shared platform for real-time editing between users and non-users, and multiple users can upload, edit and open it at the same time (<http://docs.google.com>).

Access to an Internet-capable cell phone enables people to connect with others who share their experiences, interests, and circumstances by using social media tools. In developing countries, cell phones are omnipresent because they provide consumers with personal control, portability, and mobility (Castells, Fernández-Ardèvol, Qiu, & Sey, 2007). Digital technologies provide ways to preserve indigenous knowledge and make it available to future indigenous generations. Such technologies also allow the discovery and recovery of recorded aboriginal information stored in different collecting institutions, such as library and museum archives. Because indigenous practices are dynamic like all forms of indigenous knowledge, they are constantly being renewed. Any attempt to manage, restore or preserve this knowledge, therefore, requires ongoing collaboration among researchers, institutions collecting and the indigenous holders.

Anyira, Onoriode, & Nwabueze (2010), Okore, Ekere & Ekere (2009) suggest having talk-shows and lectures for traditional healers, priests, and so on, and record the outcome in audio or video format. This appears to be a more appropriate way to capture IK for posterity than physically writing it down. One of the critical weaknesses in reducing Ik to written form such as writing of stories, belief systems and so on is that many a time their essence can easily be lost. It is because of this fact that IK cannot be captured, documented and preserved in the same way as scientific knowledge. Librarians have to adopt new roles to capture and preserve IK (Kaniki & Mphahlele (2002), Ngulube (2002) and Sithole (2007). Apart from learning new skills, librarians have to ensure the proper storage and management of this information, if it is to be made available and accessible to all. Ngulube (2002: 96) notes that inadequate management of IK has resulted in the loss of most of the indigenous knowledge captured by colonial district officers.

The International Federation of Library Association (IFLA) (2014) has advised libraries and librarians to be part of the struggle to make indigenous knowledge a global agenda by involving in the collection, preservation and dissemination of IK; to inform the public on the contribution and importance of IK; to involve indigenous people in the community with the collection, dissemination and preservation of IK and to support efforts aimed at ensuring that indigenous people and their IK are protected by

intellectual property laws. Based on these IFLA propositions, the first strategy in promoting Ik is to incorporate the teaching of Ik as part of the school curriculum in all levels of education in Nigeria- primary, post-primary and tertiary levels. Library and information science schools would train would-be- librarians on how to manage Ik. This will help to popularize the issue of Ik to the people and its relevance to the national and local development. The Nigerian Library Association (NLA) through its affiliate in academic libraries could package the curriculum content and forward same to the nation's education planners and policymakers.

The second strategy in the promotion of IK in Nigeria is for the academic librarians to organize essay competitions among secondary and tertiary students on the usefulness of Ik. There should be good prizes for the first three winners. The essay competition will make the students understand and appreciate what Ik is and how it can help in the educational, social and economic welfare of the people. Again, the academic librarians can organize talk-shows or seminars for traditional rulers and other titled men and women on the usefulness of Ik and the need to appreciate its benefits. The talk-shows or seminars will be used to interact with the people at the local level and sensitize them on Ik. It is been argued by some researchers like Stevens (2008), Alemna (2005) and Adams (2007) that part of the challenges in promoting Ik is the apathy among librarians in cooperating with local communities and authorities on the issue of IK. Talk-shows and seminars with traditional institutions can break this challenge.

Librarians in academic libraries can through the Nigerian Library Association (NLA), buy air time on the radio and television and discuss IK. Many Nigerians listen to radios a lot as such using the radio to talk about Ik will help to penetrate all strata of the Nigerian society, particularly the rural areas. In addition, women groups, age grades, and associations can be used to enlighten the people on what IK is and its benefit to the people in food and crop preservation, herbs and medicine, local delicacies and so on.

CONCLUSION

Indigenous knowledge (IK) is a veritable ingredient for the sustenance of people's culture, norms, and values. It is necessary for the overall survival of the local areas. Although UNESCO and IFLA have in one way or the other extolled

and pushed for global awareness of IK, but their efforts have not made the desired efforts globally. However, with innovative tools such as websites, social media platforms, open-access platforms, corroborative research on Ik, combined with sound strategies like including the teaching of IK in the nation's school system, essay contests, organization of talk shows and the likes, Ik will be highly promoted and its usefulness will be sustained and appreciated for social and economic survival of the people.

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