PROMOTING ACCESS TO INDIGENOUS KNOWLEDGE IN THE DIGITAL AGE: LIBRARIES AS FACILITATORS

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Abstract

The paper attempted to elicit the various ways of promoting access to indigenous knowledge (IK) in the digital age bringing libraries into the scene as facilitators. Some major characteristics of IK were listed such as IK being mostly rural in origin and locally bound; not systematically documented; oral in nature and usually transmitted through personal communication; not integrated into modern scientific and technical knowledge; culture specific and often generated within communities; use is cost-effective, deployment and mobilization not expensive. Other issues were also addressed such as types and applications of Indigenous Knowledge, libraries and Indigenous Knowledge, promotion of access to and challenges involved in promoting access to IK. Recommendations and conclusions were made.

Introduction

Africa has a rich body of indigenous knowledge (IK) which for many decades has been handed down by word of mouth from generation to generation. Such indigenous knowledge has traditionally played a vital role in the areas of agriculture, animal and human health, natural resource management education and other economic and social activities (Camble and Aliyu, 2008). IK in most African countries was misinterpreted or frowned upon by the colonialists who made the locals believe that IK was primitive, irrelevant and out of tune in the society (Nyabundi, 2006). As a result of this, IK is not adequately promoted or protected in most these countries. However, NEPAD has tried to promote the importance of IK in African culture as it states in Paragraph 140 of its framework document that ‘culture is an integral part of development efforts of the continent. Consequently, it is essential to protect and effectively utilize IK …and share this knowledge to the benefit of mankind’ Indigenous knowledge has been variously defined. Many concepts have been used interchangeably to refer to indigenous knowledge and these include traditional knowledge (TK), indigenous technical knowledge (ITK), local knowledge (LK), traditional environmental knowledge (TEK), indigenous knowledge system (IKS)(UNEP, Wikipedia). The United Nation Environmental Programme (UNEP) defined it as ‘the knowledge that an indigenous (local) community accumulates over generation of living in a particular environment’. The definition encompasses all forms of knowledge – technologies, know-how skills, practices and beliefs – that enable the community to achieve stable livelihood in the environment (UNEP, ).

According to UNESCO, MOST -Nuffic- CIRAN indigenous knowledge is the local knowledge unique to a given society or culture. That which is used for local-level decision – making in agriculture, health care, food preparation, education, national resource management, and a host of other activities in rural communities.
Indigenous Knowledge and Development Monitor (1998) on its part defined IK as the sum total of the knowledge and skills which people in a particular geographical area possess and which enables them to get the most out of their natural environment. According to the Monitor, most of this knowledge and skills have been passed from generation to generation to provide indigenes with survival strategies (IKDM, 1998). From the above definitions it can be said that indigenous knowledge is the knowledge that people in a given community possess and develop over time and pass on from generation to generation to help them manage their natural resources, health issues, environmental conservation, natural disaster and so on.

IK has some major characteristics that must be taken in to account while discussing this paper. These include: IK being mostly rural in origin and locally bound; not systematically documented; oral in nature and usually transmitted through personal communication; not integrated into modern scientific and technical knowledge; culture specific and often generated within communities; use is cost-effective, deployment and mobilization not expensive; plays a major role in food production, natural resources and management, culture, informal education, health care, poverty alleviation and biodiversity conservation (Guus von Liebenstein, 2000; Nyabundi, 2008).

Attempts will be made in this paper to discuss the types and application of indigenous knowledge; difference between indigenous knowledge and formal knowledge; libraries and indigenous knowledge; promotion of access to IK; challenges faced by libraries in promoting access to IK; recommendations and conclusion.

Types and Application of Indigenous Knowledge

Knowledge is categorized into two, namely: tacit and explicit. Tacit knowledge refers to informal knowledge held in people’s heads, expressed through action based skills and not rules based (Jain, 2008). Explicit knowledge, on the other hand, is knowledge which can be expressed in formal or systematic language and can be codified in form of data, scientific formulae, manuals and so forth (Nonaka & Takeuchi, 1995). IK by its nature is tacit knowledge which is passed from generation to generation through personal communication (e.g. storytelling), demonstration and cultural rituals. IK is expressed in the form of stories, cultural values, beliefs, rituals, local language, agricultural languages, materials, which is shared and communicated orally (Charyulu cited by Jain, 2008). It becomes explicit only when it is documented in any format.

Major Areas of Application of IK

Indigenous communities apply IK in major areas such as agriculture, ecosystems, medicine, conflict resolution and traditional attire.
Agriculture

With IK indigenous people can determine when best to plant, how to prepare, plant, harvest, propagate plants; storage and processing. IK can also suggest technique for pest management and plant protection.

Ecosystem

Indigenous people know how to use local plants, forest products, animal behavior for natural health, sustainable agriculture and sustainable resource management (Jain, 2008)

Medicine

World Health Organization (WHO, 2002-2005) noted that traditional medicine (TM) serves the health needs of almost 80 per cent of people in developing countries, as other medical facilities are expensive and unaffordable by the common people. Some popular African traditional medicine practices include: heat therapy, spiral manipulation, quarantine, bone-setting and surgery. There are many trees and herbals that can cure different ailments.

Conflict Resolution

African communities just like other indigenous communities are generally closely bound with socio-political and economic realities of the lifestyle of the communities. As a result of this, they can easily resolve conflict among themselves. For example, in Nigeria the use of the kolanut and the fresh palm frond (locally called omu) is key instruments of peace negotiation and conflict resolution in Igbo society (Jain, 2008).

Traditional Attire

Traditional Attire plays an important role in identifying a particular culture, tribe and country and sustains indigenous culture.

Difference between Indigenous Knowledge and Formal Knowledge

Indigenous knowledge differs from formal knowledge in various aspects such as acquisition, storage and transmission. Whereas formal knowledge is administered through various institutions of learning and practices such as universities, colleges, polytechnics, indigenous knowledge does not have a special institution to administer it. IK is holistic in character and is passed from generation to generation and got from personal or collective innovations (Kihwelo, 2006). It is usually owned collectively as many people contribute to it over time.

People who pass through formal education have been indoctrinated to believe and accept that knowledge is only that which is produced in universities or colleges and those who attended institutions of higher learning. This has brought a lot of controversy between intellectuals and traditional doctors who some refer to as witchdoctors.
Today this knowledge which previously was termed as barbaric, witchcraft is being sought after by researchers and scientists who seek to talk to traditional healers in Africa, Asia and Latin America and even wish to collect samples of herbal flora and fauna to take to their countries (Kihwelo, 2006)

Another area of prejudice is the scanty media coverage given to innovation based on indigenous knowledge by reporters and editors. While discovery made through experiment conducted in a university is given front page coverage or appears as headline news.

**Libraries and Indigenous Knowledge**

Because IK is usually passed from generation to generation through socialization processes by elders of indigenous communities, documented literature of IK is limited in Africa and libraries cannot effectively perform their functions of acquiring, processing, organizing, preserving and giving access. In recognition of this fact, this paper looks at how libraries can facilitate access to indigenous knowledge in the developing countries in general and Nigeria in particular. The word library is derived from the Latin word ‘liber’ which means book. A library is conventionally defined as a storehouse of knowledge. This is because historically libraries were places were books used for documentation of knowledge were kept and used. In modern times, libraries are access point institution to global information relevant in education, research and national development (Omekwu & Ugwuanyi, 2009). Wikipedia (2008) views library as a collection of information, sources, resources, books, and services organized for use or used by a group (public body, institution or a private individual). As suggested by Ode & Omokoro (2007) the basic function of libraries are acquisition, organization, preservation, storage, retrieval and dissemination of information in whatever format they appear.

Libraries have, however, shown a lot of inclination towards preservation of local culture in paper and digital format. They have also promoted exchange of information in many countries. According to the International Federation of Library Association (IFLA, 2003) libraries could help in:

- Collecting, preserving and disseminating indigenous and local traditional knowledge
- Publicizing the value, contribution, and importance of indigenous knowledge to both non-indigenous and indigenous peoples;
- Raising awareness of the protection of indigenous knowledge against exploitation;
- Involving elders and communities in the production of IK and teaching children to understand and appreciate the traditional knowledge;
• Encouraging the recognition of principles of intellectual property to ensure the proper protection and use of indigenous knowledge and products derived from it.

Though there is so much information or indigenous knowledge in different indigenous communities of the developing world, the availability of such knowledge does not mean its accessibility or use. Driving access to indigenous knowledge in these countries is clouded with numerous obstacles which include illiteracy, lack of awareness of the need for information; geographical distance between nations; poverty and underdevelopment (Doob, Schramm & Turner as cited by Aguolu & Aguolu, 2002). For example, out of six billion people in the world, four billion live in the developing countries, and 70 percent of these people are illiterate, unable to exploit information store in print or other media. These people are generally farmers, craftsmen and women who live their lives using indigenous knowledge passed to them orally by relatives, friends, colleagues, community and religious workers (Aguolu & Aguolu, 2002). Since IK is orally transmitted and held in the heads of people especially the illiterate population who cannot use written communication and because of the distance between individuals or communities, poverty and underdevelopment of the people, it is difficult for communities or individuals to access knowledge held by each other. Given the situation it is pertinent to see how libraries can facilitate the promotion of access to indigenous knowledge.

Promoting Access to Indigenous Knowledge

The promotion of access to indigenous knowledge can be facilitated by libraries in a variety of ways which include:

• Libraries can promote access to indigenous knowledge by creating an environment which permits face-to-face forums and network formation to discuss and debate on issues that might be useful to members of the communities. For example, libraries can organize talk shows involving traditional rulers, elderly people and professionals in various vocations from different subject areas ranging from agriculture, ecosystem, medicine, conflict resolution. Discussing issues related to these subject areas in an open environment drives access to indigenous knowledge which hitherto will be held in the heads of people in different indigenous communities. Information collected during these talks can be edited and made available in videos, CDs or DVD.

• Libraries can work in partnership with library schools to create indigenous knowledge collection which can be edited and made accessible to people. As stipulated in the National Universities Commission’s Minimum Standard, it is compulsory for all library schools to teach courses on oral tradition and culture.
Students as part of the requirement for the course usually document oral history and traditions of their localities. Such documentation can be in video or print format. With some level of understanding the library schools can make available to the university libraries the indigenous knowledge collected by students. Experts in the specialized area can go through what is collected, edit and extract the necessary information and make them accessible to indigenes, non-indigenes and researchers. If for instance, an indigene whose children had not seen a particular cultural dance (e.g. Ohafia war dance) knows that the library has a well documented CD of the war dance, he will bring his children to the library or even pay for it to be dubbed. Non-indigenes can also have access to such library collection.

- Libraries can also sponsor competitions on documentary of indigenous technology, traditional songs and cultural attire. Entries can be made in audio, video or print format. Prizes can be given to the best three contestants and consolation prizes given to the rest. A collection of indigenous knowledge made during such activities could be processed and made accessible to users of the library.

- Information products based on indigenous knowledge can be produced by libraries. Such information can be repackaged in different languages so as to make the information accessible to a greater number of people. The products can be in digital format and offered online to users 24 hours and seven days a week.

- Libraries can launch participatory video programming initiatives at the community centres to capture indigenous knowledge. Such initiative can widen the scope of indigenes in video programming and indigenous knowledge captured during such initiative is made accessible to people within and beyond the communities.

- Information and communication technologies infrastructures must be put in place to process indigenous information in the same way as scientific information. The provision of ICTs such as computers, internet, digital cameras, camcorders will help libraries collect and make indigenous knowledge more accessible. Digital facilities such as CD-ROM, a stand-alone electronic access to library materials, will afford users the opportunity to access a large quantity of indigenous knowledge collected. Libraries can also use the Internet to provide users within and outside the country with easy access to a wide range of indigenous knowledge.

**Challenges of Promoting Access to Indigenous Knowledge**

Promoting access to IK goes with a lot of challenges. These include:
Intellectual property right (IPR) issue is a challenge because documentation and publicizing IK could immediately lead to their appropriation by others without returns to communities and indigenous knowledge holders. Efforts have to be made to protect their knowledge from being copied, sold, or imported without authorization.

Not all aspects of living traditions of IK can be captured as artifacts using digital technology (Adams ). Such a situation poses some challenge to the libraries that have traditionally been granting access to materials in a site-specific location.

Collection of information from diverse indigenous sources is laborious, time-consuming, and a costly process. Libraries have to provide infrastructures, skilled support services, and education and training of staff in information access and retrieval.

Libraries are at times faced with the challenge of extracting information from individuals or communities who may be unwilling to share their actual knowledge with outsiders. Libraries must put up with the challenge of developing strategies that would enable them extract such knowledge.

Libraries are also facing competition with community structures such as tele-centres which are becoming important platforms for capturing, transferring and giving access to indigenous knowledge.

**Recommendation and Conclusion**

Collecting indigenous knowledge is capital intensive. Libraries can create Department of Indigenous Knowledge and Cultural Resources with well trained staff to source and promote access to IK. The funding of such a department should not be left to government alone. Non-governmental organizations, World Health Organization, UNDP, UNFPA, World Bank and other relevant bodies should be contacted for assistance.

Indigenous Knowledge Digital Library (IKDL) should be set up in the six geopolitical zones of the country. The libraries should be equipped with information and communication technology infrastructures so that materials in the library could be accessed through the Internet. Following the success story by the Traditional Knowledge Digital Library (TKDL) in India that contains information on 36,000 formulation used in Ayurveda-India’s 5000 year–old–system of traditional medicine, libraries in the country should come together and plan out strategies that will enable them provide such services and drive more access to IK. They should also present the information in different indigenous languages plus other foreign languages such as English, French, German to make the information more accessible to users from different parts of the globe.
The creation of digital libraries and the provision of access to indigenous knowledge could be used to fight contentious patent claims by providing the prior existence of the knowledge. Providing access to IK could help promote research on novel drugs, for example, thus enhancing the country’s share of the global herbal medicine market and helping set the international agenda on intellectual property rights (Padma, 2005).

References


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