The Role of Ghana Public Libraries in the Digitization of Indigenous Knowledge: Issues and Prospects

by

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Abstract

African nations are going through many changes resulting in a loss of traditional, cultural and customary knowledge as a result of a lack of the preservation and digitization of African indigenous knowledge (AIK). These are causing cultural gaps between many generations and denying the continent the power and knowledge that it has developed for centuries. While technological advancement constitutes a vital component of sustainable development, there is a conspicuous and persistent lack of African indigenous knowledge technological advancement in Africa and a greater dependency on 'western scientific' technologies. African indigenous knowledge is considered the basis for self–sufficiency and self-determination, providing effective alternatives to western technologies. Several reasons exist to digitize African indigenous knowledge AIK for sustainable development. AIK is holistic; Indigenous Peoples' systems of traditional knowledge and its use tend to have impact on biological diversity; management approaches are based on self-regulation. The use of AIK is considered one of the cornerstones that can guarantee the survival of the economies of the African developing world in the wake of scarce resources and reduced donor funding. There is also increasing recognition that the use of AIK and the application of indigenous natural resource management systems provide effective strategies for the sustainable use of natural resources. However, this knowledge base is unrecorded and it is diminishing at alarming rate. This paper looks at the issues, prospects, and the role of public libraries in Ghana in digitizing indigenous knowledge for posterity and accessibility to the general public. Using mainly literature review and an interview of the director of Public Library Service in Ghana, it was revealed that lack of human resource, finance; infrastructure, internet connectivity, and copyright, among other things, possess a great challenge in the digitization of indigenous knowledge in Ghana. The paper then advocates training of public librarians, conducting of research based on endogenous approach, provision of infrastructure, and providing a policy framework which will enhance the process of converting information into a digital format.

Keywords: Indigenous Knowledge, Sustainable Development, Digitization, Public Libraries, Ghana.

Introduction

African nations are going through many changes with the hope of advancing their development initiatives to provide better living condition to its inhabitants. And simultaneously, many traditional, cultural and customary resources are being lost due to a lack of a preservation and general access to indigenous knowledge causing cultural gaps between many generations, and therefore denying the continent of the power and knowledge that it has developed for centuries. Thus, knowledge is the key to sustainable, social and economic development (Lodhi, Mikulecky, 2010), and in building on local knowledge, the basic component of any national knowledge system, is the first step in mobilizing capital for knowledge development initiatives. Localization thus provides an exchange within a community where providers and recipients speak the same language and share in an underlying cultural context making it much more easy to transfer tacit knowledge across cultures.

While technological advancement constitutes a vital component of sustainable development, there is a conspicuous and persistent lack of African indigenous knowledge (AIK) technological advancement in Africa and thus a greater dependency on 'western scientific' technologies. Yet, a digital AIK library with appropriate subject matter would be ideal for study and in giving insight into or presenting potential information for preserving AIK and conserving them for posterity. The concepts of sustainability and sustainable development have become powerful themes that continue to provide the foundation for a number of local, national, and international initiatives. For example, the Brundtland Report (World Commission on Environment and Development, 1987) has recognized the role if indigenous people in sustainable development, and has recommended that they be given a "decisive voice" in resource management decisions that may affect them (Higgins, 2007:1).

Indigenous knowledge is thus considered the basis for self–sufficiency and self-determination, providing effective alternatives to western technologies. However, because this knowledge is overlooked, there has been influx of foreign knowledge, especially on the web wide web which has little relevancy most people in the developing world, especially Africa where the majority live in rural areas without access to electricity and computers… This assertion is buttressed by Ballantyne (2002:1) when he stated that:

> *"One of the strengths of new information and communication technologies (ICTs) such as the Internet is the way they can help unlock distant expertise, knowledge and markets. However, this access – usually to 'foreign' content with foreign perspectives – has its limitations. Easier access to globalized knowledge is fast turning us into 'consumers' of distant and potentially irrelevant information. More worrying perhaps, developing countries are being 'invaded' by foreign ideas and values that may undermine or overwhelm local cultural heritage and economic livelihoods".*

Also, most of the information on the Internet and other databases, according to Moahi (2003), are from the western world. Therefore librarians and information professionals in Africa in general and Ghana in particular should be reminding themselves that we live in a world that is saturated with myriads of information, and therefore in preserving AIK and looking forward to its wider availability it has never been more important than it is today for the information society as information system research that recognizes, supports and enables access and presence of a diverse knowledge communities online become a major concern. Hence, these issues are especially important for indigenous groups who are creating or intend to create digital resources which support and preserve their local identities and attempt to invoke grassroots involvement in sustainable development (Boast, Bravo, and Srinivansan, 2005). AIK is one example of a more user-centred approach to development, stressing that 'communication is not just about delivering information *to* the poor and oppressed; it can also be about transmitting information and knowledge from these groups to a wider audience' (Heeks, 2002:3). And furthermore, information and communication technologies (ICT) can play major roles in improving the availability of AIK systems by enhancing its blending with the modern scientific and technical knowledge. Accordingly, this paper explores these issues, prospects and the role of public libraries in Ghana in digitization (the process of converting information into a digital format) of AIK, and acknowledges that the nation is made up of many ethnic groups, each with their own knowledge systems based on unrecorded and stored information/knowledge in the memories of healers, farmers, hunters, traditional midwives, fishermen, elders, chiefs and linguists; compounded by the fact that AIK in Ghana is also expressed in songs, stories, proverbs, dances, rituals, community laws, and horticulture.

Hence, based on a literature review, observation and my own experience with African indigenous knowledge, this paper aims to make proposals for public libraries to promote the digitization of African indigenous knowledge for sustainable development. And in this, the specific objectives of this presentation will look at: AIK in Ghana; the benefits of AIK; the need to digitize AIK; the role of public libraries in the process of converting information into a digital format (digitization) of AIK; and public library service in Ghana in relationship to African indigenous knowledge with and additional survey of AIK in relationship to: aagricultural knowledge, medicinal plants (roots, herbs, seeds, nuts), food preservation, architecture, governance, religion, leather work, art and crafts, and folklore and music.

African Indigenous Knowledge System in Ghana

As mentioned above, AIK in Ghana is expressed in a host of ways, thus we can specifically turn to the question of AIK in agriculture, medicinal plants (roots/herbs), seeds, nuts, food preservation, architecture, arts and craft, folklore and music, governance and religion.

- **Agriculture**

Indigenous methods of farming and cultivating crops like millet, cassava, groundnuts cocoyam, yam, potatoes, banana, pest management and etcetera are examples of AIK applications in Ghana, representing an enormous wealth of knowledge relevant to our quest for sustainable agriculture.

This knowledge also includes clearing of land, tilling, the selecting of seed varieties for planting, planting, harvesting and storage. There are also some indigenous cultivation practices, which conserve soil and water to increase soil fertility. For example, mulching is used to conserve soil and water to maintain soil fertility. And also, shifting cultivation, crop rotation, mixed cropping as practiced by most of our indigenous people increase biodiversity conservation (Eyong, 2007).

In this arena, Boonzaaijer and Apusigah (2008) posit that there is a wealth of information that exists about soil conservation, traditional erosion control, water harvesting and irrigation, land, soil, and water classification and environmental conservation. For example to check environmental conservation, the traditional Akan society of Ghana use the concept of sacred groves, conception of land (Earth), water bodies and totem to preserve the environment, and the sacred groves are usually the indigenous reserves that have been strictly protected, and in some cases, centuries ago due to their religious and cultural significance. Hence, the groves are usually patches of forests which are so designated by traditional authorities in the various communities to observed and performed ritual during festivals and other important occasion; usually connected with the history, culture and religion of the community concerned (Awuah-Nyamekye, 2009). And in fact, the Twi-speaking Akan term for sacred grove is "*kwayɛ a yɛnnɔ*" (a forest that no one is allowed to clear and that of the Fante speaking Akan is *nananommpɔw* (ancestors' grove) (Nyamweru and Kimaru, 2008). Thus, the groves are protected by local taboos, norms and belief systems in rural communities, and failure to comply with the taboos and norms could result in ill-luck, diseases, death or social sanctions (Dercher, 1996). The institution of sacred groves abides in traditional Akan society because of its religious underpinnings wherein they are believed to be the abode of the gods, ancestors and other spirit beings; and at the same time, they may also serve as a royal mausoleum for the community.

The importance of sacred groves in the conservation of biodiversity among the Akan cannot be over emphasized. According to Awuah-Nyamekye (2009) in his study on 'Salvaging Nature: The Akan Religio-Cultural Perspective' the belief in and the presence of the grove and their attitude towards it have ensured the perennial flow of water in the *Koraa* river which has ensured a continuous water supply in the entire traditional area. The study also revealed that the people in the area were also emphatic to the windbreak that the trees had created, and interestingly, the roofs of their buildings had never been blown off by storm as it had been the case in other parts of the Berekum area. Awuah-Nyamekye (2009:2265) further observed that:

> "*Sacred groves have served as important reservoirs of biodiversity, preserving unique species of plants, insects, and animals. Sacred and taboo associations attached to particular species of trees, forest groves, mountains, rivers, caves, and temple sites should therefore continue to play an important role in the protection of particular ecosystems by the local people*" . . .

Also, the traditional Akan view rivers and other water bodies such as sea, lagoons, lakes, and oceans as sacred entities, just as it is seen among the Egyptians and other African indigenes (Parrinder, 1974), and therefore, strict religious taboos are put in place to regulate the use of the wetlands. For instance, it is a taboo to defecate near a water body particularly a river basin or for a menstruating woman to cross or fetch water from a river (probably this is meant to prevent pollution), or to farm close to the source of a river. Also fishermen living along the seashore in Ghana revere the Sea goddess (*Bosompo*) as a sacred entity, and observe the taboo of not fishing on Tuesdays since this day is reserved as her sacred day. Hence, restrictions to ensure the natural quality of the water bodies for present and future generations. And as Collence (2011) observed, taboos are critical in nurturing sustainable use of natural resources and are thus, utilized as a means to protect endangered non-human species.

Adherence to an object or symbol representing an animal or plant that serves as an emblem that reminds people of their ancestry or a mythic past reflects in the avoidance of taboos, and thus plays a critical role in community bonding and sustainable environmental protection. And this juxtaposes ethical tools that foster social cohesion and strengthen relations between humankind and the environment (Collence, 2011). Hence, in the same way, there is also traditional knowledge of animal breeding and production of traditional fodder and forage, and the classification of animal diseases. For example, Yidana et.al (2006) report that there exists a huge indigenous knowledge base on preventive and curative herbal medicinal practice in northern Ghana wherein farmers have relied on the use of various plants, species and other substances as coping strategies in addressing animal diseases, health and production related issues.

- **Medicinal Plants and Food Preservation**

Ghana is very rich in medicinal plant and has a centre for traditional medicine at Akropong responsible for herbal medicine research. And in this arena, traditional medicine such as herbs, plants, animals and charms are used to treat sickness, which combines both the physical and psychological aspects of health to engage holistic treatment is holistic that reaches beyond the physical body into the spiritual realm to provide answers to the 'why' question often asked by indigenous Ghanaians. Specialists in this area include herbalists, traditional health attendants and diviners with some of the principles and procedures being employed via hydrotherapy, heat therapy, spinal manipulation, quarantine, bone-setting, and surgery (Boonzaaijer and Apusigah, 2008). Unfortunately, all these principles and procedures are not being recorded or digitized. And also of importance, indigenous community also have knowledge for preparing and preserving foods, which includes salting, drying and smoking.

- **Architecture and Smithery**

In the construction of local houses and kitchens with mud blocks, roofed with thatches or palm fronds represent a source of indigenous knowledge. For instance, in northern Ghana, a typical family compound is made up of round roofs with thatches or rectangular flat-top houses. The houses are very strong and cool inside and thus able to withstand most of the climatic conditions of the country, however, this knowledge has not been digitized for greater use and understanding of the architectural techniques and culture. And likewise, Smithery, the blacksmith process involving the production of agriculture implements such as hoes, knives, axes, and matchers that mostly serve people in the rural areas have also, not been digitized/recorded, along with funnels, sieves, buckets and kerosene lamps in tinsmith work, notwithstanding gold and silver smith production and techniques to repair jewels for rings, chains, and bracelets.

- **Leather Work, Arts & Craft**

Leather work in the indigenous knowledge equation also produces sandals, bags, belts, and purses along with other animal skins products (most popular in northern Ghana), in addition to carvings and pottery. For example, those skilled in carving (namely the Akan) carve the popular *asesegua* stool, the Aburi in the eastern region are known for their door frames, and other wood artifacts, pottery items like pots for storing water, ceramics, flowers pots, and a mashing bowl called *Asanka* by the Akans are also common. And in unity, the people from Ashanti, Volta, and the northern part of Ghana are known internationally for their traditional cloth called *Kente* and *Fugu* both woven by hand. And also of importance, the *Adinkra* symbols of the Akan that provide unique communication and linguistic expressions.

- **Folklore and Music**

Indigenous knowledge is also realized in proverbs, storytelling, oral tradition, and historical narratives of Ghana linked to ancestral origins. And likewise, music involves itself in the organization of composition, the use of musical instruments like the drum as seen in the *Atompan* drum by the Ashanti, and the *Gonje* by the Dagomba. And conversely, most ethnic groups in Ghana have traditional musical groups that compose songs for entertainment purposes during occasions such as funerals, naming ceremonies, weddings, coronation of chiefs and so forth which spill indigenous wealth worth capturing and preserving (digitizing).

- **Governance**

In the practice of governance, Anani (1999) observed that before the colonial era, governance was centered on family and a community's resource base of leadership, kingship, religion, occupational associations, indigenous doctors, businesses, diviners, and village labour groups bound by duties and obligations to the community steeped in traditional ethnic and kingship relationships. Hence a king or queen is at the top with divisional and/or sub-chiefs, and other title holders. For example, among the *Akan* in Ghana, the *amanhene* are the overlords, and thus they preside over the divisional, functional and community chiefs, similar to the people in the northern part of Ghana where *Yaa naa* or *Nayire* is the overlord.

And the skin and the stool are the symbols of authority in the north and the south respectively, and thus they are the custodians of their traditional states and enforce laws and regulations to achieved peace.

- **Religion**

Indigenous people before, the advent of Christianity and Islam believed in the Supreme God. However the Supreme God is worshiped through smaller gods, which are believed to have power given to them by God and the objects worship includes trees, stones, rivers and cravings. And also, they believed in reverence and honour for the ancestors, sacrifices, charms and amulets.

The Benefits of AIK

Indigenous knowledge is the cornerstone to local development. Nyumba (2006:6) posits that it is only the arrogant that would argue that the expertise that matters for Third World development must come from the West, from universities, from multinational corporations, from international banks, from foreign and local professionals, but not from the farmer in Ghana or the healer in Botswana or the village teacher in Bolivia. According to Sithole (2006), indigenous knowledge is cheap and readily available to most communities and social groups. Indigenous knowledge is socially desirable, economically affordable, a sustainable resource and involves minimum risk to rural farmers. Indigenous knowledge also improves understanding of local conditions and provides a productive context for activities designed to help communities. In addition, the use of IK 'assures that the end users of specific agricultural development projects are involved in developing technologies appropriate to their needs' (Warren, 1993), and Lodhi and Mikuleckey (2010) stated that indigenous knowledge provides the basis for local-level decision-making about many fundamental aspects of day-to-day life: for example, hunting, fishing, gathering, agriculture and husbandry; food production; water; health; and adaptation to environmental or social change.

Again, as mentioned above, AIK is holistic; indigenous peoples' systems of tradition and use tend to have allowed impact on biological diversity; management approaches are based on self-regulation. AIK provides effective alternatives to western technologies. It gives local people and development workers extra options when designing development projects. Instead of searching only among western technologies for feasible solutions, they can choose from indigenous knowledge or combine indigenous and western technology. Indigenous technologies and practices are often cheaper than western ones. They rely on locally available skills and materials and often require little or no cash outlay. The use of AIK is considered one of the cornerstones that can guarantee the survival of the economies of the developing world in the wake of scarce resources and reduced donor funding (Ngulube, 2002:63). Some 80% of the world's population depends on IK to meet their medicinal needs, and at least half rely on IK and crops from food supplies (Nyumba, 2006). According to him the annual world market value for medicines derived from medicinal plants by indigenous people is US $ 43 billion.

Also in Himalayan range (Pakistan) at least 70% of medicinal plants and animal species in the region consist of wild species, and 70-80% population depends on these traditional medicines for healthcare (Lodhi and Mikuleckey, 2010).Grenier (1998:9) also of the view that:

> *"Development efforts that ignore local circumstances, local technologies, and local systems of knowledge have wasted enormous amounts of time and resources. Compared with many modern technologies, traditional techniques have been tried and tested; are effective, inexpensive, locally available, and culturally appropriate; and in many cases are based on preserving and building on the patterns and processes of nature".*

Development projects cannot offer sustainable solutions to local problems without using local knowledge (Warren, 1991:2).

Also a study by Lodhi and Mikuleckey (2010) revealed that there is additional role of indigenous knowledge as a part of education for strengthening a culture of safety and resilience at the local level that has the potential to provide solutions for reducing disasters at many levels. Another significance of IK is its capacity to empower the community. Communities, including the most vulnerable and disadvantage groups, are much more able to take action instead of relying on external help only. Some of the characteristics of indigenous knowledge which demonstrate its applicability in development are: understandable to users; implement able (usable, doable); originated within communities, based on local needs, specific to culture and context; provides core knowledge with flexibility for local adaptation for implementation; and uses local knowledge and skills, and materials based on local ecology (Lodhi and Mikuleckey, 2010).

The Need to Digitized AIK

Linden (1991) narrated how 1,600 years ago the wisdom of many centuries went up in flames when the great Alexandria Library burned down. Today, with little notice, vast archives of knowledge and expertise are being lost, leaving humanity in danger of losing its past and perhaps endangering its future as well". He was referring to the knowledge stored in the memories of elders, healers, midwives, farmers, fishermen and hunters throughout the world. This knowledge base is unrecorded, and includes: many technologies, arts, ways to farm deserts without irrigations, produce from the rain forest without destroying the delicate ecosystem, and navigate seas using knowledge of currents and stars. These ancient cultures had explored the medical properties of plants and learned how to farm in mountainous regions without allowing the best soil to be washed away (Mchombu, 2004:35).

These pieces of knowledge which have been identified by Linden (1991) are key resources that must be valued, managed and shared by academic libraries for sustainable development in Africa. This has become necessary because African nations and particular Ghana are going through many changes through globalization, and with these changes many traditions are being lost.

Lack of preservation and access to indigenous knowledge is causing cultural gaps between many generations and denying the continent the power and knowledge it has developed for many years (Macohombu, 2004). According to Kargbo (2006), AIK is vital information that is sadly diminishing at an alarming rate, and as such, there is an urgent need to collect it before much of it is completely lost. Therefore there is the growing need to preserve indigenous knowledge as indigenous communities around the world are facing a great challenge to the survival of their cultures (Stevens, 2010).

According to the World Bank (1998) AIK faces extinction unless it is properly documented and disseminated. And indeed, AIK is an underutilized resource in the development process. However, according to the World Bank (1998) learning from AIK begin by investigating in what local communities know and have which can also improve an understanding of local conditions, increase responsiveness to clients, and provide a productive context for activities designed to help the communities. And further, adapting international practices to the local setting can help improve the impact and sustainability of development assistance. However because AIK is overlooked, there has been an influx of foreign knowledge, especially on the World Wide Web which has little relevance many in the developing world. And while technological advancement constitutes a vital component of sustainable development, there is a conspicuous and persistent lack of AIK technological advancement and thus a greater dependency on 'western scientific' technologies. For example, in this ever-expanding digital era, Africa local content on the web is low.

Tjiek (2006:6) acknowledges that, AIK is still poorly documented let alone disseminated by most developing countries. Undocumented AIK would surely vanish, while documented AIK would still vanish if not disseminated or replicated elsewhere. In this case, the preservation of AIK entails documentation and dissemination efforts. In Ghana since most Ghanaian culture is orally transmitted, the rapid development of information technology, especially in the area of digitization and digital libraries, could be an answer to improve IK acquisition in Ghana and perhaps in other developing countries (Tjiek, 2006).

The term digitization is often used when diverse forms of information, such as text, sound, image, and video are converted into a single binary code. Hence, digitizing information often makes it easier to preserve, access, share and protect the community's collective memory. For example, an original historical document may only be accessible to people who visit its physical location, but if the document is digitized, it can be made available to people worldwide. And according to Ngulube (2004),

> … *we need to preserve and make indigenous knowledge visible so that the future generations may learn about it and be proud of their past that was erroneously labeled as primitive by the people who controlled knowledge during foreign domination.*

Some of the potential benefits to making indigenous knowledge accessible in a digital format have been highlighted by Stevens (2008: 27) in that tt makes it more appealing to the youth or others who may see indigenous knowledge as 'old-fashioned' (Twarog and Kapoor 2004); it puts traditional knowledge in an accessible format for restricted use by governments, non-governmental organizations and other organizations and increases the likelihood that indigenous needs, rights and perspectives will be considered in policy development and resource management, and that indigenous knowledge will be integrated into present and future development projects. Some indigenous communities have also used a geographic information system (GIS), i.e., a computer system to capture, store, manipulate, analyse, manage, and present geographical data to map their traditional land use and land boundaries, which can then be of assistance in asserting land claims (Hunter, 2005).

In addition, there can be economic benefits for indigenous communities who build digital libraries through the creation of training and employment opportunities, and by possibly sharing knowledge for commercial use (Sullivan, 2002). Also Tjiek (2006: 131) concluded that digitization, digital libraries, and thematically developed digital collections add ''appeal'' to indigenous knowledge, significantly increasing interests for any initiative for the documentation and preservation of indigenous knowledge. And also the digital library can provide:

- digital preservation of AIK that includes the historical and cultural heritage of local communities, thus preserving their collective memories

- channels for the dissemination of AIK of local communities to a global audience

- a way to transform local communities from consumer of information/knowledge into producers of information/knowledge

- positive impacts to local campus communities

- a service for libraries to reach out and expand their sphere of influence and thereby strengthen their roles in the information age

Furthermore, Tjiek (2006:124) added that digitizing documented AIK and putting it in a digital library has helped tremendously in adding ''appeal'' to the resources, which have previously been viewed as ''mediocre'' in quality due to the inferiority syndrome mentioned above. And in contrast, the digitized resources suddenly has a ''higher value'' than before they were not digitized, and thus, the interest in preserving and disseminating similar AIK resources significantly increases. The digital library has also broadened the access to the digitized resources. Unquestionably, digitization and digital library hold great potential to the preservation and dissemination of African indigenous knowledge.

Therefore librarians and other information professionals in Africa and Ghana in particular should be reminding themselves that we live in a world saturated in information, and by preserving indigenous knowledge and looking forward to its wider availability has never been more important than it is today. And indeed, information system research that recognizes, supports and enables the access and presence of diverse knowledge communities on-line has recently become a major concern, and this is especially important for indigenous groups who are creating or intend to create digital resources that support and preserve local identities and attempt to invoke grassroots involvement in sustainable development (Boast, Bravo, and Srinivansan, 2005).

The digital era in the view of Moahi (2003), has provided many opportunities for African libraries to make available local AIK and relevant content for the World Wide Web. However, unfortunately many libraries in Africa have largely restricted their themselves solely to their traditional roles by providing access to information by essentially building up books collections. Yet, for them to meet their social obligations they must also provide access to information from oral, digital and many other sources which includes indigenous librarians who are the custodians of much of the AIK (Greyling, 2007).

The Important Role of Public Libraries

Krampa (2012) advocates that basic literacy, besides being a fundamental human right, is also a foundation not only for achieving education for all but, more broadly, for reaching the overarching goal of reducing human poverty. One of the institutions with a mandate to do this are libraries. According to Kargbo (2005) the public library acts as a bridge between the information rich and the information poor. Krolak (2005) in consonants with Kargbo (2005) confirm that, public libraries play the most important role worldwide in helping to bridge the information gap by providing free access to information and communication technologies, particularly the Internet. They are inclusive in that they build bridges between individuals at the local level and the global levels of knowledge. In industrialized countries, access to modern information technology is currently one of the most attractive library services. Kargbo (2005) further posits that the public library is sometimes referred to as the 'poor man's university' where members of the society irrespective of age, color or social status have access information for lifelong learning. Hence, public library services are indeed essential public access points because people feel comfortable to rely on their free information services.

In unity, the UNECO Public Library Manifesto (1994) describes the public library as the local center of information which provides access to all kinds of knowledge and information. It describes the role of the librarian as that of "an active intermediary between users and resources." The Manifesto further notes that the library services and collections must include all types of appropriate media and modern technologies as well as traditional materials. Therefore, libraries need to engage the community at a more tangible level that goes beyond passively providing book information only to also include facilitating community interaction with service providers in health, agriculture and culture.

Stakeholders recognize the role for libraries in these fields (health, agriculture and culture), and thus Collence (2011) asserts that libraries need to be proactive and promote community publishing, so that communities are able to document their experiences and market them as a way to share their experiences with others. And furthermore, Wendland (2007) notes that libraries and archives are also repositories of formal scientific and indigenous and other cultural materials that provide vital preservation, educational, scholarly and functions for the benefit of whole society. A sediment echoed by Greying (2007) in that for libraries to meet their social obligations they have to provide access to information from the oral, digital and any other media in which it is supplied, therefore public libraries, as providers of information to all sundries, must redefine their roles and include harnessing AIK for its users which also calls for libraries to redefine their information and knowledge sources and be able to appreciate African indigenous knowledge as an important and critical unit to social development (Sithole, 2006).

Public Library Service in Ghana

The Ghana Library Board (GLB) now the Ghana Library Authority (GLA) was established in 1950 by a Gold Coast Ordinance Cap 118, and later revised by the Ghana Library Board Act 1970, Act 327 as the sole institution assigned by law to establish, equip, manage and maintain public libraries in the country. The mission of GLA is to promote a lifelong reading habit among Ghanaians, especially the youth. Also, the vision is to establish public libraries throughout the country. The Authority seeks to support formal and informal education through the provision of reading materials such as books, periodicals and other non-book materials (Krampa, 2012). The aims and objectives of the GLA are to: promote education through the provision of reading materials such as books, periodicals and other non-book materials; act as a center for information dissemination for the general Public; To promote life-long learning by making ideas and information easily accessible; and responsive to the people we serve. Or to offer service that are responsive to the needs of the people we serve on the basis of equity of access irrespective of age, sex religion or social status.

The GLA has 10 regional as well as 53 district and branch libraries. Each Regional Library also operate a Mobile library services, which visits smaller municipalities. Beyond that there are numerous community libraries in smaller, rural municipalities, which partly are developed by self-help initiatives of the citizens and partly by NGOs or the municipalities. GLA assumed additional responsibility when the African Research Library, now the George Padmore Research Library on African Affairs (GPRLAA) was established by the first president of Ghana Dr. Kwame Nkrumah. In the absence of a National Library in Ghana the GPRLAA performs some functions of a national library, namely serving as the repository of the country's literary output and making available for use by the present and future generations, a natural collection of ideas compilation of the Ghana National Bibliography (GNB) and serving as the National Agency for ISBD (International Standard Bibliographic Description.

Thus, it assigns the ISBN (International Standard Book Number), ISSN (International Standard Serial Number)**,** and the ISMN (International Standard Music Number) to Ghanaian publishers. The collections at the library include archives on both local and foreign cultural, educational and political campaign groups, journals, newspapers, books, pamphlets, and publications by social and anti-racist organizations between the 1960 and 1990".

According to Krampa, (2012) in spite of the significant role that public libraries in Ghana play in the educational system, they are increasingly finding it difficult to attract the target clientele (the youth) to patronize their facilities. This is because most of the things the Authority wishes to have at its disposal cannot be seen, and since most youth are into entertainment and want to move with the times, they often want to entertain themselves in every environment they find themselves through the use of the Internet. To address this problem the Ghana Library Authority in collaboration with Ghana Investment Fund for Electronic Communication (GIFEC) has launched the national Mobile Library Connectivity (MLC) and digitization project to digitize library resources and provide Internet connectivity and mobile library service to the rural areas, and eventually work to digitized IK according to Mr. Guy Amartefio, the Greater Accra Regional Librarian in a telephone interview conducted on 3rd May 2012. And according to Amartefio, the project has three phases namely to provide mobile libraries (The E-Library Van) and internet facilities, to digitize all regional libraries and provide computers, and do the same at all district libraries. And thus, the first and the second phases of the project have taken off, and it is hoped that the third phase will also be implemented soon.

School children in Ho in line to use their computer skills via the mobile service.

In addition, the Northern Regional Librarian of the Ghana Library Authority, Mr. Aaron Kuwornu in collaboration with Savanna Signatures with support from Public Library Innovation Programme (EIFL-PLIP), and other stakeholders like the Ghana Health Service, has also initiated an innovative service aimed at providing information on Maternal Health Service for pregnant women in the region. The service is called Technology for Maternal Health Service (T4MHP), designed to reduce maternal and infant mortality by providing information and advice.

Next, in the Northern Regional Library at Tamale, they will create an e-health corner, equipped with five computer terminals and Internet access. Working with their partners, the Library will train health workers to research the Internet for information about maternal health, and to create health information packs. They will also train health workers to create short messages about maternal health to send to mothers-to-be via mobile phone text messaging (SMS) each week. The service will directly reach 100 mothers-to-be by sending them two health text messages a week for 10 months. Community health workers will also organize meetings of pregnant women and mothers in the library, reaching at least 200 more expectant mothers with health information. Fundamentally, these services and projects are geared towards using technology to provide access to information for all. And in this effort, the also recognizes that they can help to create the next generation of leaders by providing training, skills and support as their Internet Access and Training Programme aims to develop 200 young technology pioneers (140 girls and 60 boys) wherein they will have practical ICT skills and be able to become advocates for computer technology in their communities, and mentors for others.

However, according to Mr. Amartrfio, the Regional Librarian of Greater Accra Region not without problems as he has found it difficult to get other agencies to get on board, even though the Ghana Library Authority although GITEC has acquired some mobile vans, but they are not enough to cater for all the rural communities Also there is no cooperation from the district assemblies. For instance, most of the district assemblies do not accommodate the library staff that visits various districts to implement the project and they hardly get any other support in terms of staff per diem. Meanwhile, the provision of funds to the GLA is so scanty that not much can be done because of its new infrastructure as well as in the maintenance and repairs on existing structures and equipment. As a result, GLA staff scarcely visit, resulting in books being locked in the structures, hence, closed to the public. And of course these issues affect the success of digitization initiatives and the creation of digital libraries; therefore, these problems have to be addressed positively to ensure that planned digital resource development programmes and digital libraries are in the country.

Conclusion

The public libraries as mentioned above are indeed the public university, and as such, they need to serve all the people, both literate and non-literate. The GLA therefore need to be innovative in solving the major problems that confront the organization. Second, they can take advantage of the information and communication technology (ICT), to project our cultural heritage, and create an online data base for some of our indigenous knowledge.

In short, I agree with the assertion by Krampa (2012:1) that:

> *"We as a nation also need to address the perennial problem of our oral tradition. Our public libraries should not only serve the intellectuals or those in schools. The chunk of our citizenry is those who cannot read and write. All must therefore go to the aid of the GLA to resolve the problem, by commissioning social anthropologists and researchers to chronicle most of these for posterity. Public libraries should be user friendly to this category of people".*

And finally, we should not forget that an informed nation is a powerful nation, and Ghana can only developed as a country and a region if we take the time to promote what we have in a format that is appealing to the people and most useful for the future.

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