E-learning Principles and Practices in the Context of Indigenous Peoples: A comparative Study

Koissaba B.R. Ole

bkoissa@Clemson.edu

International Family and Community Studies

Clemson University, January 2014.

Abstract

E-learning has the potential to include Indigenous Peoples' in learning processes that address skills, knowledge and qualification gaps that exist and are needed to gain successful employment outcomes. The integration of e-learning focusing on Indigenous Peoples' should therefore be viewed from the perspective of not only the availability and access of Communication Technology Information (ICT) resources by Indigenous Peoples, but the understanding of cultural issues that are a challenge to policy and practice. The integration process should be one that is inclusive of Indigenous Peoples' organizational, pedagogical and systemic characteristics which provide foundations for designing appropriate Indigenous Peoples' e-learning best practices. This paper seeks to examine e-learning principles and practices within the context of Indigenous Peoples' by broadly examining how access to e-technology has increased visibility and self-determination of Indigenous People as well as existing gaps through case studies from Australia, United States, and Kenya.

Key words: E-Learning, e-technology, ICT, Indigenous Peoples' self-determination

INTRODUCTION

E-learning is a broad term used to describe the use of any electronic technologies to acquire and develop knowledge that contributes to attitude and behavior change. It encompasses several teaching methodologies and approaches. E-learning allows for learners to learn from anywhere and at any time as long as the learner has access to the equipment required for the learning process to take place. It can be internet based, CD-ROM, and Network- based and includes videos, texts, virtual environments, and animations. Indigenous Peoples have leveraged the availability of e-technology to address issues of human rights, access to education, sharing culture, cultural inclusivity and political activism. E-learning is one of the modes of delivering distance education.

The concept "Indigenous" has been widely used but to date there is no consensus on who Indigenous is and who is not. Despite working with various global societies that call themselves Indigenous, the United Nations Working group on the Rights of Indigenous People could not agree on any formal definition of Indigenous Peoples'. As the debate rages, some common factors that are associated with being Indigenous and Aboriginal like marginalization, powerlessness and

social distress emerged. It is within that context of being on the periphery of learning opportunities that this paper seeks to examine existing literature on principles and practices of e-learning within the context of Indigenous Peoples in Australia, the United States and Africa. The paper examines available literature on global application of a range of electronic technologies in Indigenous Peoples' contexts and how they have contributed to the advancement of self-determination, education, and other social economic factors of survival for Indigenous Peoples. This is further enhanced by my own perspective of being and Indigenous person coming from the Indigenous Maasai Nation in Africa who by virtue of their culture, relationship to land, and being a marginalized group have gained global recognition and acceptance and classification as an Indigenous Peoples group. The ability to link with diverse Indigenous Peoples group globally through the use of Information Communication Technology (ICT) has immensely contributed to self- determination of Indigenous Peoples groups globally and increased access to education resources to Indigenous Peoples groups.

By reviewing and comparing existing literature on E-learning among Indigenous Peoples' in Australia, the United States, and Africa, this paper seeks to highlight the prospects and limitations of e-learning in enhancing opportunities for knowledge and skills transfer for Indigenous people. The paper seeks to answer the following questions:

1. In comparison to the mainstream communities, have Indigenous Peoples' had the opportunity to access e-learning opportunities?
2. Has e-learning contributed positively to the education opportunities for Indigenous People?
3. Are current modes of delivering e-learning to Indigenous Peoples' appropriate to their cultures and what opportunities, and challenges exist in accessing e-learning to Indigenous Peoples'?

LITERATURE REVIEW

Global perspectives of Indigenous Peoples

There is a large body of literature on Indigenous Peoples especially within the United Nations organizations, Working Group on Indigenous Populations (WGIP), Cultural Survival, Minority Rights Group (MRG), International Working Group for Indigenous Affairs, and Survival International. According to Coates (2004), the most cited description of Indigenous Peoples is that of Jose Martinez -Cobo who worked for the United Nation subcommittee on Indigenous Peoples in the 1970s. Martinez (1987) described Indigenous Communities, Peoples and Nations as those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system. This historical continuity may consist of the continuation, for an extended period reaching into the present of one or more of the following factors:

a) Occupation of ancestral lands, or at least of part of them;

b) Common ancestry with the original occupants of these lands;
c) Culture in general, or in specific manifestations (such as religion, living under a tribal system, membership of an indigenous community, dress, means of livelihood, lifestyle, etc.);
d) Language (whether used as the only language, as mother-tongue, as the habitual means of communication at home or in the family, or as the main, preferred, habitual, general or normal language);
e) Residence on certain parts of the country, or in certain regions of the world;
f) Other relevant factors.

On an individual basis, an Indigenous person is one who belongs to these Indigenous populations through self-identification as Indigenous (group consciousness) and is recognized and accepted by these populations as one of its members (acceptance by the group). This preserves for these communities the sovereign right and power to decide who belongs to them, without external interference (Martinez, 1987).

According to May and Aikman (2003), Indigenous Peoples' movements have been in the forefront in arguing for recognition, better treatment as well as restitution for historical injustices; more so there has been the urge for greater recognition of self –determination and autonomy within nation-states. Their demands have not been received positively by many countries which necessitated the Indigenous People to coalesce around global movements and use of international law. Key among the international instruments is the International Labor Organization's (ILO) Convention 169 (Article 1.1) formulated in 1989. While the Convention borrows a lot from Martinez (1987), Article 1.2 gives more emphasis on self -identification as indigenous or tribal be regarded as fundamental criterion for determining the groups to which this convention apply. One of the greatest milestone in the Indigenous Peoples' agitation for self -determination culminated in the adoption of the United Nations Declaration on the Rights of Indigenous People (UNDRIP) which was adopted by the United Nation in 2008 (UN, 2008). The document clearly outlines both legal and political aspirations of the indigenous people. As it relates to the thesis of this paper, Articles 14 and 15 focus on issues of language and education. To articulate the above, the articles state that:-

Article 14

1. Indigenous Peoples have the right to establish and control their educational systems and institutions providing education in their own languages, in a manner appropriate to their cultural methods of teaching and learning.
2. Indigenous Peoples especially children, have the right to all levels and forms of education of the State without discrimination.
3. States shall, in conjunction with indigenous peoples take effective measures, in order for indigenous individuals, particularly children , including those living outside their communities, to have access, when possible, to an education in their own culture and provided in their own language.

Article 15

1. Indigenous Peoples have the right to the dignity and diversity of their cultures, traditions, histories and aspirations which shall be appropriately reflected in education and public education.

2. States shall take effective measures, in consultations and cooperation with the Indigenous Peoples concerns to combat prejudice and eliminate discrimination and to promote tolerance, understanding and good relations among indigenous peoples and other segments of society.

From the above articles and available literature (May and Aikman 2003), Indigenous People have lost their culture and languages hence the need for education to begin addressing the deficiency through the incorporation of Indigenous humanities in mainstream education systems. According to Boyle and Wallace (2011), e- learning adoptions by Indigenous People have demonstrated the potential it has in connecting Indigenous People to their work, social networks, and culture. From the global perspective, the Indigenous Peoples movement has leveraged the availability and access to ICT to develop a global movement that is advocating for the rights of Indigenous People. ICT has contributed to the building of partnerships between Indigenous groups across the globe as witnessed by the impact they have had on several global decision making mechanisms.

E-learning and education in the Indigenous Peoples' context

In the last decade online education programs have grown exponentially in public and private universities alike. According to Grandzol and Grandzol (2006) A recent study of chief academic officers, financed by the Alfred P. Sloan Foundation, found that overall online enrollments for U.S.-based institutions increased from 1.98 million in 2003 to 2.35 million in 2004, an 18.2 percent increase (Sloan Consortium, 2005). This growth rate is similar to the 19.8 percent found from 2001 to 2002 and the 22.9 percent found from 2002 to 2003. These growth rates are between 10 and 20 times more. According to the National Center for Education Statistics' (NCES) (2005), expectations for growth in the entire United States higher education market are high. This growth has allowed colleges and universities to expand their reach and increase their enrollments. Smith and Mitry (2008) note that despite lingering controversies regarding quality and costs, the technology is now deeply integrated in higher education, and the basic process of online delivery has already become a ubiquitous feature of most universities. According to Wenger (1998), learning is a social process that occurs when people utilize their relationships to engage in meaningful experiences which are negotiated and shared to create a common understanding. Davis et.al (2010) argues that "e-learning refers to the use of technologies to support learning and teaching. These technologies can be placed in the hands of tutors, learners, and those who support them" (p. 5). The interaction between these players creates and recreates e-learning processes, and applications as well as individual and collective behaviors that support the learning processes. According to Jonassen et al. (1999), technologies have come to be recognized and described as cognitive tools. Cole (1985) called technology a cultural amplifier suggesting that technology has transformed human productivity both quantitatively as well as qualitatively. This transformation

has affected the cognitive process and expanded cultural communication dimensions. According to Boyle and Wallace (2011) e-learning goes beyond the introduction of digital technologies; it understands the role of these technologies in communication across cultures, regions, workplaces and ideas.

Lankshear and Knobel (2003) further emphasized the need for technology literacy and proficiency which brings about ICT competence. This they argue ensures for access to benefits from the social, economic, and cultural encounters in lifelong learning. This implies that e-learning is a process of collective production and development of skills, and concepts that increase the participation levels of all stakeholders. The exposure of ICT opportunities to Indigenous Peoples has immensely contributed to the interaction of Indigenous Peoples groups as well as connecting them to mainstream educational opportunities which have enhanced their participation in decision making. This process has enhanced the opportunities for Indigenous People to inform and shape their learning processes which contributed to self-determination. McDonald and O'Callaghan (2007) further state that e-learning should not be undertaken by Indigenous communities simply for the sake of it, but it should be used as a vehicle for achieving broader social outcomes. Millions of students are now taking courses via distance education, mostly online (Carlson, 2004). Interestingly, Scott Carlson (2004) found that institutions which hold low opinions of online learning have the lowest enrollment numbers and are growing the slowest. He also found that institutions with a positive opinion of online learning have the highest number of students. From the study it is clear that online education is a large and increasingly important aspect of higher education today. It is clearly in the best interest of institutions that deliver education to Indigenous People to learn the best practices necessary to successfully administer an online program.

Research on ICT education for Indigenous children by (Fryer 1987; Fleer, 1987; 1988 and 1989; Czerniejewski, 1989) puts greater emphasis on the need for educationists to include computer aided learning in education curriculums that target Indigenous children. According to Lukas (1996) "the potential of computer assisted learning is culturally appropriate model for teaching Indigenous children because it offers the potential to draw from any number of authoritative sources and obliges the teacher to play the role of coordinator and facilitator rather than the authority figure"(p.104). This environment creates a more conducive atmosphere for Indigenous children to learn without the fear which is associated with their being Indigenous. It facilitates interaction between the children and their peers which is a primary method for Indigenous children learning processes.

Available literature indicates that much of technological interventions for Indigenous Peoples have been done in the Americas and Australia (Greymorning, 2000; Iseke- Barnes, 2010; Mcloughlin, 2000; George, 1992; and Fetes, 2010). According to Greymorning (2000) the past three decades has witnessed an increase in Indigenous faculty as well as students' growth in American colleges. This was also accompanied by an increase desire to teach Indigenous subjects and issues at college level. This desire to learn more about Indigenous People studies has created what is now termed as Indigenous Humanities which is a deliberate thrust by Indigenous scholars and researchers to address matters pertaining to education for Indigenous communities.

Advantages of e-learning

Indigenous Peoples' are the most marginalized social groups and are often at the periphery of national policy making processes (Koissaba, 2013). Most of such communities live in hard to reach areas due to inadequate infrastructure development. This makes mainstream education inaccessible to many of the Indigenous People. E-learning provides a new set of tools that can add value to all the traditional learning modes. According to Hall and LeCavailer (2000), advantages for e-learning include: affordability, flexibility, accessibility, and consistency. Boose (2001) argues that web-based training can be applied in the delivery of instructions to learners who because of various challenges may not be able to physically attend regular classroom. By eliminating costs of travel and residency, learners save on costs of accessing education because they have the ability to access learning from the comfort of their own homes at any time and at their convenience. This reduces the cost for accessing education by Indigenous communities who have challenges in accessing education due to inadequate infrastructure development and poverty. The ability for learners to access learning at their convenience is enhanced by flexibility that is inherent in e-learning. The proliferation of hand held devices like mobile phones makes learning accessible to learners regardless of their geographic locations so long as their devices are within any range of device reception. Contrary to the nature of formal modes of delivering knowledge through conventional schooling with subjects taught by several teachers, e-learning content is characterized by consistency which arises from its content which is developed and delivered from one source.

INDIGENOUS PEOPLE E-LEARNING BEST PRACTICES

Indigenous Peoples in Australia

Over the last three decades, indigenous people have become active participants in cyberspace. Boyle and Wallace (2011), researchers from the Desert Knowledge Cooperative Research Center and Social partnerships in Learning Research Consortium (SPiL) based at Charles Darwin University have used a range of ICT tools to support both vocational education and training within indigenous populations. The contribution in terms of research, policy and product development in collaboration with both government and non-government actors, the Vocational Education and Training system has shown significant improvement of educational outcomes among the indigenous and hard to reach populations in Australia (Boyle &Wallace 2011).

With funding from the Australian Flexible Learning Framework in 2008, the Northern Territory Flexible Innovations Project, "provided an opportunity to investigate the potential for using electronic tools for skills recognition, evidence and artifacts collection and storage for assessment of Aboriginal Artworks'' (Boyle &Wallace 2011, p. 7). The project used competency navigator software to create user- defined job roles based on units of competency within the Certificate III in Arts center administration((Boyle &Wallace 2011, p. 7) which is a nationally endorsed qualification for Visual Arts, Crafts and Design Training package. "This enabled individuals with skills and knowledge of Vocational Education and Training (VET) sector, training packages, institutional processes and e-skills to work side- by -side with those with skills about the people, processes, and operations of the Aboriginal Arts and Crafts Centers in Central Australia" (Boyle &Wallace 2011, p. 7) .

The other aspects of the project are the creation of a collaborative online learning platform called "social networking spaces" for indigenous participation and the use of e-learning to recognize knowledge and competence in indigenous enterprise training and development. In the social networking spaces for Indigenous People, the project used *Ning* , a social networking creator (http://www.ning.com) to both support management and a shared communication space for indigenous and non-indigenous partners in the project partnership (Boyle &Wallace 2011). The *Ning* platform is also used with other e-learning tools to reach teachers in remote parts of the Northern Territory where they are able to share and contribute their views to other schools across the vast geographical area. The use of e-learning created an opportunity where hard to reach indigenous communities and their institutions were able to access information that would have otherwise been inaccessible without the use of ICTs. E-learning has therefore become a gateway for knowledge and skills transfer between not only indigenous communities in Australian Northern Territories but other non- indigenous communities as well.

In ensuring that indigenous Aboriginal communities accessed information vital for accessing employment opportunity, "the Australian Flexible Learning Framework in collaboration with the Indigenous Engagement project, used e-tools and technologies to support indigenous people employed across a range of indigenous organizations develop training plans" (Boyle &Wallace 2011,p. 9). By integrating indigenous community knowledge in the delivery of the VET programs, the program strategy ensured that community aspirations were embedded in the training by matching them with on- going and future development work, that all trainings were taught by Indigenous trainers for content quality, ensured for meaningful partnerships between community based enterprises and the VET, ensured for learning relationships that are sensitive and respectful to the Indigenous Cultures, and inclusion of all stakeholders, their leadership as well as mutual responsibilities in the planning, implementation and evaluation processes.

Boyle and Wallace (2011) conclude their study by stating that "the potential of Indigenous People to inform and shape e-learning to achieve positive and empowering outcomes is realized through partnerships and a readiness to learn together" (p. 9). Iseke-Bernes (2002) approaches the subject of e-learning from a domain of resisting dominant culture and raises key issues regarding how internet exchanges can contribute to educating the non-indigenous about the reality of the indigenous populations which is a contrast from dominant research approaches as well as mainstream Eurocentric education systems. This perspective is supported by Battiste (2004) who states that "Eurocentric humanity has proved to be not about a universal human and whole, healed and empowered, but it is still located in social construction of superiority and dominance" (p. 10), the author suggests that education should be viewed as a "humanistic endeavor which must reconcile and recognize the dehumanizing history of the Indigenous People under colonialism" (p.11). According to Iseke-Barnes (2010) cyberspace is not only validating indigenous people's perspectives but it is also providing an opportunity for guarding against appropriation and misappropriation (p.191) of indigenous people's cultures and provides a platform to challenge for educators to recognize that Indigenous Knowledge is valid in its own right. According to Roy (1998), the resistance approach is to counter the existing American education policy which encourages assimilation (p.59).

Indigenous Peoples in the USA

Despite having not ratified the ILO Convention 169, the United States of America (USA) announced in 2010 that it will give limited support to the United Nations Declaration on the Rights of Indigenous Peoples(UNDRIP) on moral grounds. In the USA several Indigenous Peoples organizations formed by Native Americans have several ICT and e-learning initiatives that have contributed to the visibility of the American Natives in national policy making processes and self-determination. According to the United States Census Bureau, approximately 5.2 million people in the U.S., or 1.7% of the total population, identified as Native American or Alaska Native in combination with another ethnic identity in 2010. About 2.9 million, or 0.9% of the population, identified themselves only as American Indian or Alaska Native. There are currently around 365 federally recognized Indigenous Tribes in the United States, and most of these have recognized national home-lands. Almost 80% of those identifying as American Indians or Alaska Natives live outside Native areas, many in large cities (US Census Bureau, 2013).

One outstanding milestones among many achieved by Indigenous Peoples in the US is the establishment of The Native Nations Institute for Leadership, Management, and Policy (NNI) housed at the University of Arizona. The institute has established an online training program called "Rebuilding Native Nations" which is a distance-learning course series. The course examines the critical governance and development challenges facing Native Nations and surveys the breadth and diversity of Native Nation-building efforts across Indian Country. This has opened up opportunities for not only Indigenous People in the US but other Indigenous Peoples globally to access basic knowledge and skills in strategic planning, governance, constitutionalism, intergovernmental relations, justice systems, and economic development through sustainable entrepreneurship.

Other notable Indigenous Peoples organizations that have leveraged the availability of ICT are The Seventh Generation Fund, Cultural Survival, and First People Worldwide. Through the use of available social media outlets like Facebook and tweeter, these two organizations have shared intensive knowledge with global Indigenous Peoples organizations and individuals. The media department at the Seventh Generation Fund also provides training and technological support through the development of media projects that have produced a series of short films with a variety of Indigenous Communities to bring awareness on various issues affecting Indigenous Peoples. The primary mission of First Peoples Worldwide is to use Indigenous values to help create a sustainable future for the whole planet. This is done by assisting Indigenous communities achieve self-determination, as well as engaging with various bodies, such as governments, NGOs and social bodies (First Peoples World Wide, 2013). One of the organization's central goals is to combine modern knowledge with Indigenous views and practices. Both the Seventh Generation Fund and First People World Wide have provided online materials and grants opportunities for Global Indigenous Peoples that many Indigenous groups have accesses to ensure that their processes of self- determination are kept alive.

African Indigenous Peoples

According the International Work Group for Indigenous Affairs (IWGIA), the peoples who identify with the Indigenous movement are mainly pastoralists and hunter-gatherers as well as a number of small farming communities (IWGIA, 2013). Pastoralists are estimated to comprise 25% of the national population, while the largest individual community of hunter gatherers numbers approximately 30,000. Pastoralists include the Turkana, Rendille, Borana, Maasai, Samburu, Ilchamus, Somali, Gabra, Pokot, and Endorois. They mostly occupy the arid and semi-arid lands in northern Kenya and towards the border between Kenya and Tanzania in the south. Hunter-gatherers include the Ogiek, Sengwer, Yaaku, Waata, El Molo, Boni (Bajuni), Malakote, Wagoshi and Sanya. Both pastoralists and hunter-gatherers face land and resource tenure insecurity, poor service delivery, poor political representation, discrimination and exclusion. Their situation seems to get worse each year, with increasing competition for resources in their areas (IWGIA, 2013).

 The Indigenous Maasai who number about 1million are said to be to among the most illiterate communities in with only 8% high school education and 0.4 % college education in comparison to national data of 75% high school education and 52% of college education (GoK, 2009). Being pastoralists, they have continued to suffer from systemic marginalization that has continued the dispossession of their land through unfriendly land legislation and policies that do not recognize their way of life as a productive system. Land alienation for the creation of National Parks, Game and Forest Reserves, extractive industries and large scale agricultural production have continued to facilitate landlessness and increased levels of poverty. Accessing quality education has been one of the greatest challenges for self-determination for the Maasai Indigenous Peoples'.

With the advent of ICT and linking up the Maasai to opportunities to access information that will enhance their education, economic, and political engagement in national policy making processes, several initiatives have been established by local community based organizations that are bridging the digital gap. The Sekenani Maasai Development Project (SEMADEP) and the Mara Discovery Center are one such projects that are not only providing opportunities for the Indigenous Maasai Peoples to learn computer skills but have also been able to link the Maasai community living around the world famous Maasai Mara Game Reserve with global partners in the tourism industry. Despite living around one of the world's renowned tourism attraction, the Maasai communities living on the peripheries of the park have not had a share of the multi- billion tourism businesses that thrive in the area. Despite losing the land that was curved out from their grazing areas, multi nationals and the government have continuously exploited the ignorance of the community.

The establishments of ICT training facilities in Talek by Mara Discovery Center and the Community Knowledge Center at Sekenani which are the main entry points to the Game Reserve have served to increase the capacity of the local Indigenous Maasai to interact with the tourists who visit the parks and may want the use of internet. This has created further opportunities for local Maasai youths to access online education, increase their web presence through social media and facilitated an exponential growth of youth enrolling in a variety of basic language, tourism and business online classes. The availability in this remote and sometime hard to reach areas has helped several Indigenous Peoples within the Maasai Mara area to start marketing their private tourists camps through local websites which is attracting a reasonable number of tourist who opt to stay at the camps owned by the local people because they are culturally authentic as well as cheaper than those that are run by non –indigenous tourism business proprietors. This has also helped to place Indigenous Maasai artifacts which are in high demand globally in the international markets. The availability of mobile devices and connections provided by local phone service

providers has reduced insecurity for local business women who can now transact business through their mobile devices.

With globalization and education systems that are Eurocentric and western oriented many African Indigenous communities have continued to lose their cultures and traditions which are the core of their survival. E-learning provides the opportunity to ensure technology is used effectively to promote and protect culture and traditions. This calls for the creation of digital content in Indigenous languages that are made accessible to the communities. In 2012, the first online African Virtual University (AVU) reported having trained 43,000 students since its establishment in 1997 (Dialo et al.). AVU developed 219 modules from collaborative work within 10 African countries. Such are opportunities that African Indigenous communities can leverage to access education opportunities. Massive Open Online Courses (MOOC) being offered by Coursera for free are some of the best practices and opportunities that can provide access to e-learning for African Indigenous Peoples'. Key to accessing e-learning to African Indigenous Peoples' is the need for research by African scholars to identify key areas in education curriculum that need to be included in existing online education opportunities. Political goodwill to influence policy in educational goals will be a needed asset in ensuring that national education programs include not only Indigenous knowledge but provide the infrastructure required for e-learning programs.

Indigenous Peoples and global e- networks

According to Cultural Survival, an international non-profit agitating for the protection and preservation of indigenous people rights and culture found that Indigenous Peoples' use the internet to communicate with other people, to gain access to powerful computing resources, and to publish or access libraries of information in the form of numerical data, text, images, and sound(Cultural Survival, 2010). They use it for communicating in their own and other languages, and between tribal members, members of other indigenous groups, and members of the general public. One of the strongest reasons for having a presence on the internet is to provide information from a viewpoint that may not have found a voice in the mainstream media (Cultural Survival, 2010). Several global campaigns by Cultural Survival have highlighted the plight of indigenous people and stopped the infringements of the rights. Currently the organization is running an international campaign against the displacement of over 66,000 families in Loliondo in Tanzania to privatize land for international hunting blocks (Cultural Survival, 2013).

According to Minority Rights Group International (MRG) which has 130 partners in over 60 countries worldwide, online campaigns have contributed to global linkages between Indigenous people and enhanced education on human rights and advocacy (MRG, 2012). MRG links Indigenous and ethnic communities globally with resources that support legal representation, research, media, and advocacy (MRG, 2012) .With the minority voices newsroom which is an online multimedia library that allows people to upload, download and share their stories, MRG aims to close the gap between journalists and minority activists. Members of minorities and Indigenous communities, and their advocates, are encouraged to upload first-hand accounts, interviews, reports, pictures, audio and video footage addressing issues of importance to them(MRG, 2012).

DISCUSSION

A common phenomenon that emerges from the study of Indigenous Peoples from Australia, the United States of America and Kenya is indicative that Indigenous Peoples across the world experienced the consequences of historical colonization and invasion of their territories, and face discrimination because of their distinct cultures, identities and ways of life. The lack of inclusiveness in Nation States policy processes has been seen to be the greatest impediment for Indigenous Peoples ability to articulate their interests. The common practice and belief by western oriented education systems have assumed that assimilation of Indigenous Peoples education is the panacea for educating and developing the "savage" and has contributed to systemic exclusion and marginalization of Indigenous Peoples in education. The existing intellectual gap between Western and Indigenous scholars has precipitated the suppression of Indigenous Knowledge in the mainstream education policy and practice. These discrepancies have contributed to a larger extend to the economic marginalization of Indigenous People (Lindberg et al.2003). The place of Indigenous Knowledge transmission through scaffolding, story- telling, and mentorship, and to an extent traditional rituals and rites of passage has no place in "modern" education systems.

In recent decades Indigenous faculty in Australia and The Americas have contributed immensely to the growing Indigenous Knowledge by not only documenting best practices in education but also through the inclusion of e-learning curriculum that is sensitive to the needs of Indigenous Peoples'. The establishment of Indigenous Peoples' learning centers, distance education programs, and online forums has also asserted the efforts of Indigenous Peoples' self-determination. The international community has also given special attention to the human rights situations of Indigenous Peoples', as shown by the adoption of international standards and guidelines, as well as by the establishment of institutions and bodies that specifically target Indigenous Peoples' concerns. The rights of Indigenous Peoples' are further promoted by international and regional human rights mechanisms. E-Learning has thus become one of the emerging avenues that Indigenous Peoples' can use as means to address self-determination. Success of e-learning among Indigenous Peoples' will depend on several factors. First it will depend on the readiness and ability to integrate Indigenous Peoples' friendly e-learning programs into existing educational systems. The integration of e-learning into an educational system begins with the teachers' readiness to embrace "Indigenous Knowledges" and the ways in which teachers teach, secondly ability to adopt new teaching methodologies with pedagogical approaches that take advantage of the opportunities afforded by e-learning.

E-learning has a great potential to contribute to the improvement of the lives of Indigenous Peoples' by addressing the shortage of teachers which is prominent in many Indigenous Peoples' territories. It can also address the shortage of leaning materials as learning could be delivered using hand held devices such as mobile phones and readers. Indigenous Peoples' will also benefit from interactive, communicative e-learning which will promote the development of skills in learners such as communication, critical thinking and problem solving, collaboration, and creativity. E-learning technologies could potentially play an important role in reducing the gap in access to education and in achievement by certain community groups like women who by virtue of cultural practices of certain communities lack adequate access to leaning opportunities which will in turn reduce the gender gap. According to Flora and Flora (2008) education levels of any community determine the type of infrastructure, business opportunities as well as types of jobs which in turn influence the type of educational levels of the community. By increasing their education levels

through e-learning, Indigenous Peoples will increase their potential to improve their economic status through the acquisition of new knowledge

CONCLUSION

Comparatively, e-learning within the Indigenous Peoples globally is at different levels and giving different results but as the study shows Australia and the USA have been able to advance in the deliberate efforts to not only include Indigenous Knowledge in schools but have been able to establish e-learning platforms that address the existing knowledge gap between the Indigenous People and those that believe in the mainstream education which is Eurocentric and Western oriented. These opportunities have contributed to a large extent to the high degree of self-determination of Indigenous People in the USA and Australia. In Kenya and Africa at large, self-determination by Indigenous People is perceived to be a national threat by Nation States and is highly curtailed through systemic exclusion of Indigenous Peoples related education programs. E-learning has contributed through information sharing between the Indigenous Peoples' organizations.

As stated in the introduction of this paper, e-technology has the potential to include Indigenous Peoples' in learning processes that address skills, knowledge and qualification gaps that exist and are needed to gain successful employment outcomes, the literature in this paper has confirmed the immense value e-learning has added to lives of Indigenous People globally. This review covered global perspective of indigenous people, e-learning in relation to Indigenous People, an overview of some indigenous e-learning best practices, and indigenous people in global e-networks. This review should not be considered exhaustive but it should be seen as a contribution to the emerging Indigenous Humanities.

 E-learning provides a mechanism to explore the potential for indigenous people to inform and shape e-learning processes that help in empowering outcomes. Partnerships that have positive attitudes and respect for Indigenous peoples' cultures, histories, values context, and place will provide opportunities and expertise that facilitates possibilities for working across knowledge systems. According to Boyle and Wallace (2011, p.11), "effective approaches to e-learning created value in learning for individuals, their families and communities; socially culturally, and in some cases economically". Indigenous Peoples have embraced mobile technologies that have increased information flow and opportunities for learning; indigenous language radio stations, and online literature are such learning opportunities that are available to indigenous people.

According to Dei et al. (2000), to effectively and appropriately teach Indigenous Knowledges, educators must deal with the many questions of credibility, accountability, practice, relevance, sustainability, appropriation, validation and legitimation of the design, content and delivery of the education content. This can only be achieved when instructional designers consider both pedagogical and philosophical issues of the goals, objectives, content, and instructional activities which can be validated by the target consumers of the learning materials. It is imperative that e-learning interventions should promote equity of learning outcomes, reflect multicultural situation of the community, and include various cultural ways of teaching and learning. It should engage

existing capacities of indigenous people and not play the role which is seemingly being currently played by mainstream media of reinforcing their deficit.

Indigenous People have an opportunity to leverage the emerging awareness of Indigenous Humanities and international as well as nation state instruments that recognize the need for partnering with indigenous communities to increase their opportunities and visibility in cyberspace. Local, in-country and international partnerships within indigenous and non - indigenous individuals and groups have the capacity to secure resources to support global e-networks that support the work of indigenous communities. As evidenced from the literature, the approach taken by Canadian and Australian indigenous communities has shown how the inclusion of Indigenous People can reduce the bias in education policy and increased their participation in planning for education content. This has increased the opportunity for hard to reach Indigenous People to access education through e-learning and opened opportunities for them to join the workforce.

Notwithstanding the gains the Indigenous People have attained through embracing e-technology, the challenge of mainstreaming global educational institution to embrace and include Indigenous People in planning and executing Indigenous Peoples' cultural systems still remains a challenge. Nation states are yet to accept the reality that indigenous people irrespective of their culture have unique circumstances warranting the support to enable them participate fully and benefit from national development and educational processes. According to Stockdill and Morehouse (1992), Indigenous Peoples' organizational capacity, educational needs, user characteristics, content characteristics, and technology considerations are key success factors in the development and use of innovative e-technology for indigenous communities.

REFERENCES

Battiste, M. (2004). Animating Sites of Postcolonial Education: Indigenous Knowledge and Humanities. University of Saskatchewan.

Boose, M.A (2001). Web-based instructions: Successful preparation for course transformation. Journal of Applied Business Research, 17,(4), 69-80.

Boyle, A. & Wallace, R. (2011). Indigenous People and e-enabling technologies: An analysis of recent experiences in northern and central Australia. Kulumun, Indigenous Online Journal, Vol1, 2011, p 1-14.

Carlson, S. (2004). Online-education survey finds unexpectedly High Enrollment growth. Chronicle of Higher Education, 51(14), A30-A30.

Cultural Survival. (2013). Land Grabs in Loliondo, Tanzania Affecting the Maasai

Cultural Survival. (2010).The Internet and Indigenous Groups: Problems in Paradise: Sovereignty in the Pacific.

Coats, K.S. (2004). A Global History of Indigenous Peoples Struggles and survival.

Cobo, M.J. (1988). UN Commission on Human Rights, *Study of the problem of discrimination against indigenous populations.* E/CN.4/RES/1988/48, available at: [http://www.unhcr.org/refworld/docid/3b00f03418.html] Accessed 29 March 2013

Cole, M. (1985). The zone of proximal development: Where culture and cognition create each other. In J.V. Wersch (Ed.), Culture and cognition: *Vygotskyan perspectives*, p.146-161. Cambridge University Press.

Czerniejewski, R. (1989). Literacy Production in Bilingual Schools in Central Australia. *Unicorn 15, No. 4, p. 216-220.*

Davis, N., Fletcher, J., & Absalom, I. (2010). E-learning for adult literacy, language and numeracy. *A case study of a polytechnic.* New Zealand Government.

Dei, G.J.S., James, I.M., Karachumanchery, L.K., James, W. S. & Zine, J. (2000). Removing the Margins: The Challenges and possibilities of inclusive schooling. Canadian Scholars Press, Toronto.

Diallo, B., Thuo, C. W., & Fernandes, T. (2011). Developing and Using OERs in Africa: Lessons Learned from the African Virtual University (AVU), in eLearning Africa 2011, Daresalaam, Tanzania, 2011.

Fetes, M. (2010). Indigenous Education and the Ecology of Community, Language, Culture and Curriculum. 11.3, p. 250-271.

 First Peoples Worldwide Inc. (2012). Retrieved December 23rd 2013.

Fryer, M. (1987). Computers and Aboriginal Students," Unicorn 13, No 1, p. 54-55.

Fleer, M. (1987). Introducing Computers to Schools with Aboriginal Students. Unicorn 13, No.2 p. 115-116.

Fleer, M. (1988). A Cross cultural study of the implementation of Micro-Computers into schools. *Australian Journal of Education Technology 5, No. 1, p1-13.*

Fleer, M. (1989). Is it Hands- On or Hands –Off: Research into availability Micro-Computers for Aboriginal School Children. *Australian Aboriginal Studies, No. 1 p.31-36.*

Flora, C.B. & Flora, J.L. (2008). Rural Communities. Legacy and Change.

George, R. (1992). Identification of suitable distance education technologies in the Anagu Teacher Education Program. In J.G. Hedberg & Steele. (Eds*), Education Technology for the Clever Country. Selected papers from EdTech'92, 236-243*. Canberra: AJET Publications.

Greymorning, S. (2000). Observation on Response towards Indigenous Cultural Perspectives as Paradigms in Classroom. Learn in Beauty: *Indigenous Education for a New Century, p.   71-84.*

Grandzol, J. & Grandzol, C. (2006). Best Practices for Online Business Education. International Review of Research in Open and Distance Learning, 7(1), 1-18.

GoK. (2009). Republic of Kenya 2009 Kenya Population and Housing Census

Hall, B. & LeCavailer, J. (2000). E-learning across the enterprise: The benchmarking study of best practices.

ILO. (1989). C 169- Indigenous and Tribal Peoples in Independent Countries: Geneva, 76th ILC session, June 1989.

Iseke-Bernes, J.M. (2010). Aboriginal and Indigenous People's Resistance, the internet, and education. Race, Ethnicity and Education. 5:2, p.171-198.

IWGIA. (2013). Indigenous Peoples in Kenya.

Jonassen, D.H., Peck, K. L. & Wilson. B.G. (1999). Learning with technology: *A constructivist perspective*. Upper Saddle River, New Jersey: Merrill.

Koissaba, B.R. (2013). Education for All: Prospects and Challenges of Mobile Schools, Mobile Education & E-Learning for the Nomadic Pastoralists in Kenya.

Lankshear, C. & Knobel, M. (2007). Changing Knowledge and Classroom Learning. Buckingham, UK, Open University Press.

Lucas, A. (1996). Indigenous People in Cyberspace.

May, S. & Aikman, S. (2003). Indigenous Education: Addressing current and developments. *Comparative Education* Volume *39 No 2, p. 139-145*.

Mcloughlin, C. (2000). Designing learning environment for cultural Inclusivity: A case study of Indigenous online learning at tertiary level. AJET Publication.

Minority Rights Group International. (2012). State of the World's Minorities and Indigenous People. Events of 2011.

Digest of Education. (2005). National Center for Education Statistics. U.S. Department of Education Institute of Education Sciences.

 Roy, L. (1998). An Indigenous Education Model. *Wicazo Sa Review, Vol.13, No. 2*.Technology and Native American Culture.

Smith, D. E., & Mitry, D. J. (2008). Investigation of higher education: The real costs and quality of online programs. *Journal of Education for Business,* 147-152.

Stockdill, S.H. & Morehouse, D.L. (1992). A Technology adoption model. *Educational Technology, 32 (2), 57-58*.

Survival International. (2012). Annual Report 2012.

Sloan Consortium. (2005). Growing by Degrees. Online Education in the United States, 2005

Wenger, E. (1998). Communities of practice: Learning, meaning and Identity. Cambridge University Press: Cambridge.