

ESARBICA JOURNAL

**JOURNAL OF THE EASTERN
AND SOUTHERN AFRICA
REGIONAL BRANCH OF THE
INTERNATIONAL COUNCIL ON
ARCHIVES**

Volume 31

2012

ISSN 2220-6442 (Print), ISSN 2220-6450 (Online)

DISCUSSING INDIGENOUS KNOWLEDGE AND INDIGENOUS KNOWLEDGE SYSTEMS IN AFRICA

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Received: 2 November 2011

Revised: 25 December 2011

Accepted: 1 August 2012

Abstract

This brief communication reports on the First Annual International Conference on Indigenous Knowledge (IK) and Indigenous Knowledge Systems (IKS) in Africa. The conference was hosted by the Faculty of Communication and Information Science at the National University of Science and Technology in Zimbabwe from 23 to 24 August 2011. The conference was attended by IK scholars and practitioners from Botswana, Malawi, Swaziland, South Africa, Tanzania and Zimbabwe.

Keyword

Indigenous knowledge, indigenous knowledge systems conference

Discussion

The welcome remarks by the Dean of the Faculty underscored the point that indigenous knowledge (IK) was a concept which can no longer be ignored and that Africans should appreciate the richness of their diversity (e.g. *Ubuntu*, culture and languages etc.).

The first presentation entitled, *What's in a name? Using informetric techniques to conceptualise the knowledge of traditional and indigenous communities*, was done by Patrick Ngulube and Bosire Onyancha. They defined the concept 'IK' and highlighted that there is limited agreement on its definition and conceptualisation. They identified a number of names given to IK, including, traditional knowledge (TK), traditional ecological knowledge (TEC), local knowledge (LC) etc. The main question of the paper was, 'can we establish a label for this knowledge?' The authors assert that we need to establish a label for IK. However, they observe that some of the tools (LC Subject Headings, EBSCO Thesaurus and Sears Subject Headings) used by libraries to organize and retrieve codified knowledge do not have a uniform approach to identifying the label. Data was gathered using available literature, databases and publish or perish (PoP) software. They recommended that further studies involving different databases be conducted to ascertain whether or not the pattern witnessed in this study is correct/valid.

The second presentation was from Lawton Hikwa and was entitled, *Indigenous languages (IL) as preservers of indigenous knowledge in Zimbabwe*. He highlighted that languages are a '2nd symbol system' that can reveal, affirm and preserve both tacit and explicit knowledge. They have tag names for indigenous concepts, objects and even processes. He said that indigenous languages provide a storage system for the collective memory of society and influences perception and the way we view reality (McGarry 1981 cited in Hikwa 2011). Therefore, language aids knowing, identification and recall. He proposed that libraries should make sure indigenous languages are preserved so that IK continues to develop and be consumed. However, he posed a question, "should the English language be the *Lingua Franca* in Zimbabwe?" He noted that ILs were viewed as obstacles that prevented colonial manoeuvres against the indigenes. African cultural values, including languages were looked down upon as inferior to the English language. He

concluded by saying that it is necessary to transcend the colonial alienation of indigenous languages and IK for libraries to play a meaningful role in a knowledge economy.

The third presentation was by Joyce D. Ndwandwe and was entitled '*Indigenous Knowledge systems and modernity*'. She started by defining the terms 'modernity', IKS and humanism. She moved on to discuss the African life paradigm characterised by the African world view vs the American world view, African ideology (says there's oneness in all things) vs American ideology (says survival of the fittest promotes a drive for mastery and control of nature), African ethos vs American ethos, African cosmology vs American cosmology, African ontology vs American ontology and African axiology vs American axiology. She went on to say what humanism is and expressed that her approach was based on indigenous values and philosophy and gave the late King Sobhuza II as our model for humanism. She showed a video of King Sobhuza II to support her assertions. She also went on to discuss how IKS and modernity can be blended, that is, only when Western science respects indigenous healing as science and not superstition, property and communal land rights co-exist etc. She concluded by proclaiming that she is an African with noble blood flowing through her veins and is a Princess without a geographic Kingdom blessed with spiritual gifts.

The fourth presentation was by Mass M Tapfuma and was entitled '*Preservation of indigenous knowledge systems in Zimbabwe: some ethical considerations*'. The main focus of the paper was the observance of ethics by researchers in research involving the indigenes. The paper outlined the characteristics of IK and expressed why the knowledge has to be preserved. She said that IK faces extinction and needs to be preserved for posterity and continued use especially for the development of rural communities. She then discussed the ethical considerations that researchers have to observe which include, prior informed consent, seeking clearance from the authorities, access benefit sharing of proceeds from research and ownership of the research results.

The discussion session was quite interesting when a delegate indicated that the story that had been told by Lawton Hikwa of a man who had a permanent penile erection after he had raped a sixteen year old girl, was the African way of securing and protecting our homes and families. African IK has instant justice and has restorative justice. A comment was also made to the effect that most of us are affected by products of modern science. The chemicals that are used for preservation affect us. Concern was also raised as to why the young generation wants to dissociate themselves from IK. IK is 'unprocessed gold.' Therefore, the onus is upon us to make it shine. A question was raised as to whether it's possible to separate spiritualism from IK and the response was that at times it's not possible. An example was given of ailments that can be healed using known herbs whilst other ailments can be cured under spiritual guidance and the same prescription cannot be applied on another patient.

The fifth presentation was by S. Dube and C. Dube and their paper was entitled, '*Assessing the effectiveness of the use of underground cellars for grain storage in Gwanda and Kezi, Zimbabwe*'. The background to the research was that a variety of small grains such as *rapoko*, sorghum and millet were being produced but the long droughts that were experienced made it necessary for the indigenes to design grain storage systems that could ensure regular food supply. The major challenges of stored grains were rodents, fungi, birds, thieves, invaders and insects hence the need for good storage facility. Hence the development of the long term storage system called '*umlindi*' an underground cellar which was dug in the cattle kraal. The grain was put in the '*umlindi*' and ashes were added to eliminate air spaces between the grains. The paper concluded that grain from the underground cellar was safe to eat as there were no toxic chemicals like modern fumigated grains (organophosphates).

The sixth presentation was by Phefumla Nyoni was entitled, *The role of Ubuntu and kinship networks in entrepreneurship development among Mthatha entrepreneurs, S.A.* The focus of the paper was on the use of ubuntu networks in hiring, management and firing by small to medium enterprises. He said that ubuntu in business places emphasis on solidarity, mutual aid, cooperation, sacrifice and harmony. He, however, highlighted that the indigenous networks have both advantages and disadvantages.

The seventh presentation came from Esabel Maisiri and the paper was entitled, *Curio makers of the Matopo National Park: an evaluation of the SECI model*. Her research was influenced by complaints from curio shop owners over the quality of products they are now getting and the disappearance of the usual suppliers of curios. She discussed how learning occurs in indigenous communities. She said that learning is contextual and relational, occurring naturally in the course of life within households across generations, it is hands-on, experiential and feedback is immediate and it is centred around observing natural processes and sharing stories in which lessons are embedded. She also mentioned that difficulties in the transmission of indigenous information were postulated to have led to a shortage of certain types of curios in Bulawayo, as reported by a number of curio outlets. Curios are works of art, usually handmade, prized for their rarity or distinctiveness - woodcarvings, baskets, beadwork and stonework. They are essential for the tourism sector, e.g., Zimbabwe is targeting 15% of its GDP to come from tourism by 2014. She went on to discuss the SECI model of knowledge creation. She concluded that a study on a wider scale is essential to establish learning modalities where the curio-making venture has become commercially viable.

The eighth presentation was made by Veli Jiyane and Patrick Ngulube whose paper was entitled, *Use of indigenous knowledge to determine weather patterns: a case study of women mussel harvesters at KwaNgwanase in KwaZulu Natal*. The aim of the study was to determine which IK techniques are used in understanding and interpreting weather patterns used by women mussel harvesters in KwaNgwanase and whether they are still relevant and used in this time and age. Mussels were said to be a type of shellfish related to scallops, oysters and marine clams (Grabarkiewicz & Davis 2008:3 cited in Jiyane & Ngulube 2011). They can be cooked in or out of their shells or purchased smoked, canned or frozen, rich source of essential vitamins and minerals in people's health. Their shells can be used to make fashionable tools, implements, ornaments and fashionable pearls. They found that women of KwaNgwanase attach value in IKS for predicting weather patterns in harvesting mussels. She concluded that IK and IKSs are still valued and used by most people in rural areas. It should be given a deserved value by government and policy-makers. IKS and technology complement each other and therefore should be used interchangeably to solve problems presented by climate change.

The discussion session revealed some interesting thoughts and views. Ngulube asked if the SECI model could be used for the preservation of IK. Maisiri's response was that the model can be used to explain explicit knowledge. The second question posed was that 'our artefacts have a history, why is Matobo Hills unique and why is it important from the ancestral perspective? A comment was also made to the effect that commercialisation of IKS is underrated and a question was posed, who should place value on IKS? Maisiri's response was that sellers are not realizing any profits due to the current economic climate but sales should improve if more tourists were to flock into the country. A discussant commented that she envisages the dismantling of capitalism in Africa in the near future and went on to ask Phefumla if he looked at the types of enterprises where the culture we want will be cultivated. Phefumla's response was that firing of employees in IK entrepreneurs is a challenge as it strains family relations. There is no contractual agreement when people are employed.

The ninth presentation was by Gwatiringa and was entitled, *'Anger management through self-care practices: enhancing indigenous behaviour control mechanisms'*. She started by defining the term 'anger' and noted that anger is not the problem but its management is the problem. She said that anger results in serious aggressive outbursts, domestic violence, divorce, road carnage, workplace violence etc. She discussed indigenous ways that keep temper under check, including: recognising escalation of anger, time-out, expressing anger and identifying possible solutions. She concluded by saying that Health professionals need to enhance clients' ability to use the self-care practices as means of reducing uncontrolled anger.

The tenth presentation was entitled, *'Acquisition and communication of indigenous knowledge for sustainable development: the case of South Africa and Tanzania'*, by Mathew Moyo and Tandi Logwa. In its introduction the paper highlighted that acquiring and communicating IK to rural people has been considered a means of ensuring socially, environmentally and economically sustainable rural development in areas such as agriculture, health, education, natural-resource management, etc. It also mentioned that IK is communicated by development agencies, e.g., extension officers and health workers to local communities. Face-to-face communication is the major mechanism for communicating and acquiring exogenous knowledge in rural communities. The paper concluded that IK is inadequately documented and that exogenous channels are predominated by exogenous information leaving little room for IK.

The eleventh presentation was by Jabulani B Sithole and was entitled, *'Link between indigenous knowledge and development a reality or just a mirage: critical discourse on indigenous knowledge and HIV/AIDS communication'*. The paper highlighted that knowledge informs choices and forms of action that humanity takes when confronted by calamities or emergencies such as HIV and AIDS. He said that IK helps people appreciate development or change from within their context and environments and that people interpret and participate in development processes informed by their interpretation of the world. Language components such as proverbs (*izaga*) and figurative language are being used to communicate HIV and AIDS messages. He concluded by saying that indigenous languages – the vehicles of communication and a store house of knowledge have been used to communicate HIV and AIDS prevention.

L. R Fusire and Heather Ndlovu gave the twelfth presentation entitled, *'The impact and effects of IKS in democracy and good governance in the Zimbabwe context'*. The paper sought to create an understanding of the correlations and differences between the modern views of democracy and good governance and the African indigenous governance system. Good governance is, among other things, participatory, transparent and accountable, effective and equitable, and it promotes the rule of law. It ensures that political, social and economic priorities are based on broad consensus in society and that decision making in the allocation of development resources should consider the voices of the poorest and the most vulnerable. The presenters also mentioned the importance of traditional leaders in the African governance system. They recommended that Zimbabwe in particular should move away from relying on modern liberal democratic principles that have in actual fact bred outcries against autocracy, election violence and election rigging, as well as hate and acrimony among political leaders, politicians and the people in general, and should instead return to the past which is commonly viewed as an anachronism in solving current socio-political and economic problems.

The thirteenth presentation entitled *'Totems, taboos, superstitions and beliefs in wildlife conservation,'* was given by Bekezela Nxumalo and Peter Mundy. The presentation started by defining and explaining the term 'totem'. She highlighted that every Southern African is presumed to have a totem and the question is, can totems be used in wildlife management? She ended by recommending that use of culture in conservation should be upheld and promoted, there is need

to develop national strategies to support the use of IKS and integrate of IKS and modern ways of conservation.

The fourteenth presentation was by Obert Wutete and the paper on, *'The role of taboos (zviera) in conserving natural resources in Gutu District: challenges posed by modernity'*. Taboos were defined as avoidance rules that forbid members of the human community from certain actions based on superstitions (Tatira 2000 cited in Wutete 2011). He highlighted five categories of taboos as suggested by Tatira. These are: taboos conscientising children on health issues, taboos that warn against danger, taboos meant to guard against bad behaviour, taboos that are meant to prevent cruelty and taboos falling under miscellaneous group. The influence of modernity through Christianity, (affected African traditional practises, values, customs and beliefs) and Western type of education, (created an intelligencia class whose critical thinking changed societal values). He recommended that taboos should focus on problems affecting the youths today in order to be acceptable to the young generations and that community leaders should continue to uphold indigenous beliefs and teach about their importance to the younger generations.

Gracious Zinyeka gave the fifteenth presentation entitled, *'Integration of traditional medicine (TM) into nursing school science curricula: issues of sustainable development'*. In his paper, TM type of IK is viewed as the unique lived experiences of people indigenous to a particular geographic area, and is cumulative, representing generations of experiences useful and crucial for meaningful living and survival in the area of health and medicine. The paper also highlights that IK is a domain or area of study which is in its infancy, and has not presently filtered into the curriculum of professional training institutions. As a result nursing schools are poorly prepared to meet the challenge. He concluded by postulating that there are two crucial kinds of research lines which should be birthed. First, the kind of research that focuses on documenting, investigating and suggesting how programs can begin incorporating TM in a valid and legitimate way (Onwu & Mosimege 2004; Zinyeka 2010 cited in Zinyeka 2011). Second there is need for research that takes up from the documented TM practices to do laboratory work focusing on safety, efficacy and quality issues.

Mehluli Masuku, Delight Sigauke and Patrick Ngulube made the seventeenth presentation on *'The role of archives in preserving indigenous knowledge systems'*. The presenters started off by giving the 'traditional' (classical) and 'total archive' definitions. The traditional archives are selected physical documents, of historical value, preserved in a building with preservation first before access the priority. The 'total archive' is a more expansive [and] inclusive record of evidence with a disregard for medium, source and outside physical abstraction is considered archival or at least collective memory so they argued. They asserted that preservation is a calling to Archivists and as such all IK in societal culture, norms, practices and beliefs must be collected, arranged, described, communicated and preserved in the archive along with other knowledge. They concluded that Archivists have a duty to society and they must accelerate the preservation of IK for future generations and actively take measures to document and preserve it in IK centres.

The discussion session was quite thought provoking with questions and contributions from panellists. A comment was made by Mama Kina that the practice of fencing should be used to prevent people from raping vulnerable members of society and also as a measure against the spread of HIV. On the issue of taboos, it was said that we have to realise that culture is dynamic and begin to answer questions of taboos. Our elders knew when to teach (age groups) and why. Therefore, there is need to inculcate the old school into the curricula e.g. initiation ceremonies. Professor Mundy's comments provoked a lot of anger within some panellists. He mentioned that when he grew up, everything was father and son but now we no longer have that. He also mentioned that colonialism cracked a lot of local culture and that culture is adaptive, so IK

should also be adaptive. He posed a question as to why most of the world's HIV is in Africa. He said that Joshua Nkomo was against condoms and referred to it as public sex. He also asked what IK is in having sex with young girls? The other question that was raised was; should traditional leaders interfere with present day politics? A question was also raised; how can traditional medicine be integrated with conventional medicine because of the spiritual and tacit nature of traditional medicine? A comment was also made that 'time out' as a means of anger management, can be considered unacceptable behaviour. How can this conflict be minimised?

Responses from the panellists were quite interesting. Professor Ngulube expressed worry over Professor Mundy's comments. He said that HIV cannot be traced to IK. For example, having sex with a youngster or virgin is not IK but selfish behaviour which is based on ignorance. He also challenged Bekezela Nxumalo by saying that totems may not be valuable to urbanites, but to the rural folk. Ngulube went on to comment on Wutete's presentation to the effect that the word 'superstition' smelt of Western trappings and was not IK or African. A comment was also made on Gwatiringa's paper on anger management. It was highlighted that the paper should have highlighted indigenous ways of anger management. It was also mentioned that Jabulani Sithole's paper did not show the link between IK and HIV and what does an African understand about HIV/AIDS? A comment was made as to whether we need to modernise IK because the current generation is modernised.

The second day started with the Vice-Chancellor's (Prof. L. R Ndlovu) official opening address. He welcomed all delegates to the conference and said that there could not have been a better time to host such a conference than now, particularly when Africa is aiming at repositioning and redefining itself as a continent. He also mentioned that the sub-themes of the conference spoke to the diverse nature of indigenous knowledge systems which are largely not documented by Africans and therefore premised on Western understanding of the same and scholarship.

The first presentation of the day was by Luyanda Dube whose paper was entitled '*Indigenisation and Africanisation of the Library and Information Science curricula: a case of the Information Science Department, University of South Africa*'. In her introduction she purported that "it has emerged from the literature that colonialist education generally compromised issues of relevance and responsiveness to Africa's needs or imperatives, e.g., library schools in Africa have generally been criticised for continuing to produce professionals who continue to provide elitist, urban-centric and Euro-centric services and products which benefit a minority and continue to perpetuate the exclusion of the non-literate majority" (Sturges & Neil 1990; Alemna 1995; Issak 2000; Mostert 2001; Ngubeni (2004) cited in Dube 2011). She went on to say that Africanisation of the curriculum or tuition is seen by many as a necessary tool to ensure a meaningful reversal of the impact of colonialism which at the same time will ensure relevance and responsiveness to African imperatives, needs and expectations. "Therefore, the Africanness of Unisa is shown primarily by its vision of being an 'African university in service of humanity'" (Unisa (2008) cited in Dube 2011). The objectives of her paper were to reflect upon the extent to which the Department of Information Science has made inroads in Africanising the curriculum in line with the University's vision and to determine the inclusion or embedment of indigenous content, both explicitly and incidentally into the LIS pedagogy including the extent to which indigenous perspectives are reflected through teaching, research, and community service projects. Her paper concluded that, at UNISA, from 2004 to 2008 there was vigour and renewed interest towards African Renaissance, Africanisation and other African oriented initiatives but what is happening at UNISA right now is not Africanisation but a sanitization of the concept characterized by superficial initiatives. The paper recommended that the university should expand its indigenisation initiatives as a 'whole-of-university' responsibility, and encourage and communicate innovative ways to create an indigenised curriculum.

The second presentation was by R. B Nfila and Priti Jain and it was entitled, *Managing indigenous knowledge and indigenous knowledge systems in Botswana using information and communication technology.* In the context of their paper, they defined IKS as,

...complete bodies of knowledge, know-how, practices and representations that have been maintained and developed by generations of Batswana in their interaction with the environment. These IKSs represent understandings, interpretations as well as meanings and have been part of a cultural complexity that encompasses amongst others, language, naming and classification systems, ways of using resources, rituals as well as spirituality (GEF Small Grants Programme (2008) cited in Nfila & Jain 2011).

They said that ICTs integrate IK into both formal and informal education systems e.g. disseminate local cultures to students and teach curriculum in a local language and informally day to day learning and that “ICTs improve linkages between research and extension workers” (Jain 2006; Global Voices (2009) cited in Nfila & Jain 2011). They went on to highlight the IK systems in Botswana. They said that the Department of Research Science & Technology (DRST) coordinates IK research and formulation of IKS policy focusing on traditional knowledge. They also gave an example of Botswana’s “Dingaka Database”, created for the “storage of information on medicinal plants, types of diseases, traditional healers, and works together with Matwetwe Expert System which is an interactive database that captures information from traditional healers and can be used by patients” (GEF Small Grants Programme (2008) cited in Nfila & Jain 2011). They recommended that there should be a strong partnership between the Government of Botswana, through the Department of Research, Science and Technology and other stakeholders.

The third presentation was made by Aleck Ncube. The title of his paper was *Intellectual property rights: a new paradigm*. He started off by saying that resource-intensive growth is being replaced by economic development based on knowledge, innovation and creativity. As a result, Intellectual Property has assumed greater importance and pre-eminence. It impacts every facet of our lives and has become a critical tool for policy making with socio-economic, technological and cultural repercussions. The paper highlighted the different types of intellectual property rights including, copy rights, plant breeders’ rights, industrial property, patents, utility models, industrial designs and trademarks but indicated that to date there is no legal international protection of traditional knowledge, but some form of protection is being considered. In his justification for protecting IK he gave the following reasons: cultural integrity, avoidance of unjust enrichment of outsiders and prevention of economic harm on the community. He recommended the partnering of indigenous knowledge systems with modern science and technology, commercialising certain types of indigenous knowledge, and equitable sharing of the benefits with holders of indigenous knowledge.

Ken Chisa and Patrick Ngulube made the fourth presentation entitled, *The digitization of indigenous music in Africa: managing the legal and sensitivity issues*. The introduction of the paper highlighted the debate that is going on concerning the commercial exploitation of IK and who is benefiting. The focus of the debate is on (i) indigenous communities (owners), (ii) outsiders (culprits), (iii) Intellectual property rights (tools), and (iv) computer networks (mainly after digitisation). According to the paper indigenous music was used as a primary means of teaching law and culture, ceremony, preserving language, celebration, mourning, and commenting on life, society, politics etc. The paper also highlighted the importance of intellectual property rights (IPRs) and the different types of rights. They concluded that from a legal perspective, developing ethical professional practice within digitisation initiatives should be about managing a range of risks associated with breaches of both customary law and IPRs. The paper recommended that the consequences of IPRs and customary law should be considered before digitising indigenous

expressions by initiating strategies to minimise risk and that these strategies can be used by the institution as a basis for determining legal and culturally sensitive judgements and for maintaining good relationships with indigenous communities.

R. Twala and S. B Mangena gave a paper on ‘*Open/Free source software in preserving and communicating indigenous knowledge*’. The paper started by defining open source software according to Wheeler (2005) cited in Twala and Mangena (2011) who said that Open Source Software/Free Software (OSS/FS) programs are programs whose licenses give users the freedom to run the program for any purpose, to study and modify the program, and to redistribute copies of either the original or modified program (without having to pay royalties to previous developers). This type of software no doubt arouses interest in their applications to Indigenous Knowledge system preservation and communication particularly in remote communities where funding would be a challenge. Funding is generally scarce and hard to come by, open source software would give institutions and individuals involved with Indigenous Knowledge study a better deal compared to proprietary software. An example of Open Source Software operating system is Ubuntu/Kubuntu. This is a South African Software. The philosophy behind Ubuntu is that we are what we are because of what you are and you are what you are because of what we are. In Nguni it simply means “*umuntu ngumuntu ngabantu*”. In this study a passive network performance software application program was used in order to monitor the performance of an Indigenous Knowledge application on an Open/Free Source platform. The paper concluded that; (i) we have much to learn about the strengths and weaknesses of open source software as it moves into the mainstream of software development and systems integration - be it for Indigenous Knowledge systems or other areas, (ii) while commercial software and open standards are often perceived to be in conflict, this is not necessarily the case – indeed it may make good commercial sense to use open standards where a product needs to work in harmony with others, even though the internal workings of the product are proprietary (rather than open source).

The sixth presentation was by K. DK Tapfumaneyi and G. Rupande. Their paper was entitled, ‘*Indigenous knowledge transfer, the means towards safeguarding our cultural heritage practices and challenges: the case of Zimbabwe*’. In its introduction the paper attributed the high attrition rate of IK to lack of documentation. The importance of IK in the social development of communities is highlighted. The recommendations made included: (i) there should be an agreement in principle that Indigenous and non-Indigenous knowledge should feature in a national education curriculum, (ii) the intellectual value of Indigenous peoples knowledge should be credited thus intellectual property should be shared in ways that are mutually beneficial to researchers and IK owners, (iii) developing governments should take active participation in supporting cultural institutions like libraries and museums in collecting and disseminating IK materials and, (iv) governments should promote and provide incentives for writing and publishing works on IK. For instance, government may sponsor conferences such as this one (Which focuses on indigenous knowledge systems) and also facilitate the publishing of the papers to enhance documentation of IK.

The discussion session ensued with interesting comments and questions being raised. A question was posed to Chisa expressing that IK is resident in rural areas, so does he mean to say that our traditional songs are not music? His response was that IK cannot be static. It has to be relevant to the current generations by incorporating kwaito and hip hop music. A comment was made on A. Ncube’s presentation that it clearly showed that colonization has not ended. We need to start looking at our souls and find ourselves. We seem to be running around. Mr Zinyeka posed the question specific to critical thinking about IK. What should we do to avoid engaging tension between and among different worldviews to allow them to become complementary or competing worldviews. Advice was given for participants to read the writings of African philosophers. S. B. Mangena responded to an earlier comment that had been made by a

discussant to the effect that Binga was backward. He wanted to correct people's view of the ethnic group by saying that the areas was not backward. People were told to visit a web page called Mulanga Online where they would find information on the goings on in Binga.

The seventh presentation was made by Pastor L. Mahofa. The purpose of his presentation was to explain the role of the Zimbabwean Government in promoting Science and Technology (S & T) research, development and innovation (RDI) He started off by giving the vision and mission of the Ministry of Science and Technology Development (MSTD). The vision is, *"To make Science and Technology an integral part of both individual and national development"* and the mission is, *"To provide an enabling environment in which Science and Technology and Innovations thrive with a view to intensifying national development."* He mentioned that Zimbabwe and South Africa signed a Memorandum of Understanding in Science and Technology and are in the process of implementation, a conference resolution encouraging further collaborations in the IKS e.g. through organised groups in both countries would be very ideal. Say, NUST focal point for Zimbabwe through incorporation of existing bodies such as the traditional medical council of Zimbabwe (TMCZ), the Zimbabwe National Association of Traditional Healers (ZINATHA) and the Zimbabwe Association of Inventors (ZAI). He also pointed out that MSTD's high level representation at the SADC protocol is a clear indication of how serious it is in supporting the use of IKS and its integration into S&T RDI results which can be commercialised through the Innovation and Commercialisation Fund (ICF). MSTD is in the process of reviewing the S&T policy so that it is relevant to the current needs of all Zimbabweans. Participants were urged to be ready to contribute in IKS when the exercise is extended to them. Therefore, MSTD would like to be informed of the NUST, FCIS 2012 S&T and IKS calendar of events including the next round of the International IK and IKS conference, for planning purposes. He pointed out that NUST is naturally the ministry's focal point in Matebeleland and MSTD encourages that where resources allow, politicians should be invited to such fora (The Governor, Mayor etc, Ministries of Environment and Natural Resources, MSTD) for easy buy in of national programmes which arise out of such gatherings.

K.DK. Tapfumaneyi and G. Rupande then presented a paper on *Making libraries more relevant to communities, the inclusion of indigenous knowledge in library information services-the potential benefits and challenges: an Afro centric librarian's perspective*. In their introduction they said that Libraries are the cultural pillars of any given society and community as they transmit culture from generation to generation. Libraries are thus regarded as oases of all information. Sadly the role of the African librarian has been limited in scope leaving librarians to be passive enquirers of already codified knowledge and information neglecting the rich indigenous knowledge (IK) of the communities in which they operate. They said that the role of the librarian has to mutate from a passive enquirer and keeper of already codified knowledge to an information gatherer and documentalist of the culturally grounded IK which is relevant to the library's clientele. They quoted Abdulla (1998) who stated the constant demands for information by farmers in rural areas remain unfulfilled because of illiteracy and the solutions the sources in the library provide are alien and beyond the financial reach of such communities. They questioned which culture the African libraries are transmitting to the young generation? The answer is readily clear and available, thus library sources are stock piled with a whole range of western knowledge. Challenges of IK transmission were highlighted including: (i) some experts caution against any attempts to transfer IK because they believe IK cannot or should not be exchanged across communities because it could be irrelevant or even harmful outside its original cultural context, (ii) there are fears that attempts to record, document and transfer IK could lead to the dis-empowerment of indigenous people and (iii) IK goes into spiritual realms which make it difficult to document and share. A recommendation was made that African librarians can collaborate with or recruit volunteers from communities (elders, community leaders and/or government officials) to organize

workshops, and meetings, where relevant IK and information can be passed orally. There is no shortage of teachers and mentors in IK and oral tradition.

The ninth presentation came from S. B Mangena and R. Twala, NUST and their paper was entitled *'Using ICT networks for IK: utilising computing and microprocessor technology to develop virtual communities.'* The paper started by highlighting the importance of networks; they are the bedrock of communities, they communicate in a recognisable domain, they have an ontology and, their communicated is based on some media. They said that networks communicate content of social, business, academic /research and IK nature. For ICT networks to be effective in the IKS domain there is a need to: (i) set up founding ontologies for domains such as indigenous health and medicine, (ii) agree on languages, (iii) select software, and (iv) set up mile stones.

Koketso Mokwatlo gave the tenth presentation. Her paper was entitled *'An exploration of amagqirba's and abakhwetha's experiences and perspectives on the recording of information and knowledge on ukuthwasa.'* The paper focused on the information and knowledge preservation practices of *amagqirba* and *abakhwetha*, with special reference to *ukuthwasa*. Recent years have ushered a seemingly co-dependent relationship between indigenous and biomedical health care systems. However, a wide gap still remains between the two health systems with regard to the preservation of their respective information and knowledge. She concluded that there is an agreement that *ukuthwasa* information and knowledge should be recorded, and preferred role players should be identified.

The presentation on: *'Traditional and modern perspectives on the use of traditional medicines for infant illnesses: a case study of Tafeni location of Nyandeni Local Municipality in the Eastern Cape of South Africa'*, was made by Kholekile Hazel Ngqila. She said that about 60 to 80% of the South African population was using traditional medicines. South Africans believed so much in indigenous medicine such that they even "indigenise manufactured traditional medicine" (Cocks & Moller [Sa]. cited in Ngqila 2011). In her research she found that Tafeni people based their interpretation on beliefs in spiritual causation of infant illnesses and their mortality while the modern perspective was that the period of infancy was a very delicate one – it becomes very easy for a child to catch any form of disease when exposed to it. She concluded by saying that it does not help to crush and underestimate the power of beliefs in the lives of people, instead, there should be a way of reconciling the two approaches. Gradual integration of the traditional medical sector into the modern medical sector could assist in many ways.

The last Conference presentation was by Kudzai Chiwanza and Josephine Phiri. Their paper was entitled, *'Making the law work for preserving IKS in Zimbabwe'*. The background to the paper was that traditional knowledge is fast becoming an acceptable and indispensable part of modern life. Connections among indigenous, western knowledge and the concepts of law have assumed new significance and that IK has posed a crisis of legitimacy for the intellectual property(IP) systems, hence the call for the re-examination of IP law in and across-cultural dimensions. After independence, the government of Zimbabwe passed the Traditional Medical Practitioners Council Act of 1981 which stipulates that the practice of traditional medicine encompasses treatment identification and analysis without the application of operative surgery by traditional methods. Structurally, Zimbabwean law largely conforms to the major requirements of the dominant IP law regime at international level, but Copyright and Neighbouring Act, has failed to protect the rights of indigenous people to their knowledge. In conclusion the paper said that there is great value in the indigenous resources of Africa and there is need to strengthen the legal framework to protect such resources and ensure Africa has a relatively rich body of indigenous knowledge and related technology.

The comments, question and answer session ensued. A question was posed; how much of IK is contemporary culture? Another question was posed to Kudakwashe that when one goes to a local community would one take the library or one would take extension workers? The response from the floor was that rural libraries are still relevant and are in existence. An example of the Rural Libraries Resources Development Programme (RLRDP), Zimbabwe where community resource centres have been established and communities are benefiting. A comment was made towards Mangena's presentation, that people appreciated the new technology and the onus was upon us to initiate change. IK is not necessarily rural neither is it urban, therefore, we should publish the information and put it in the public domain by using the technology to our advantage. Another comment was passed on the need to rebuff the Western view of literacy as literacy has been used to explain the lack of development in Africa, which is largely attributed to low literacy levels. However, panellists felt that we need to be careful about how we use the term illiteracy. Knowledge is no longer confined to paper, e.g., one does not need to be literate to watch TV.

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