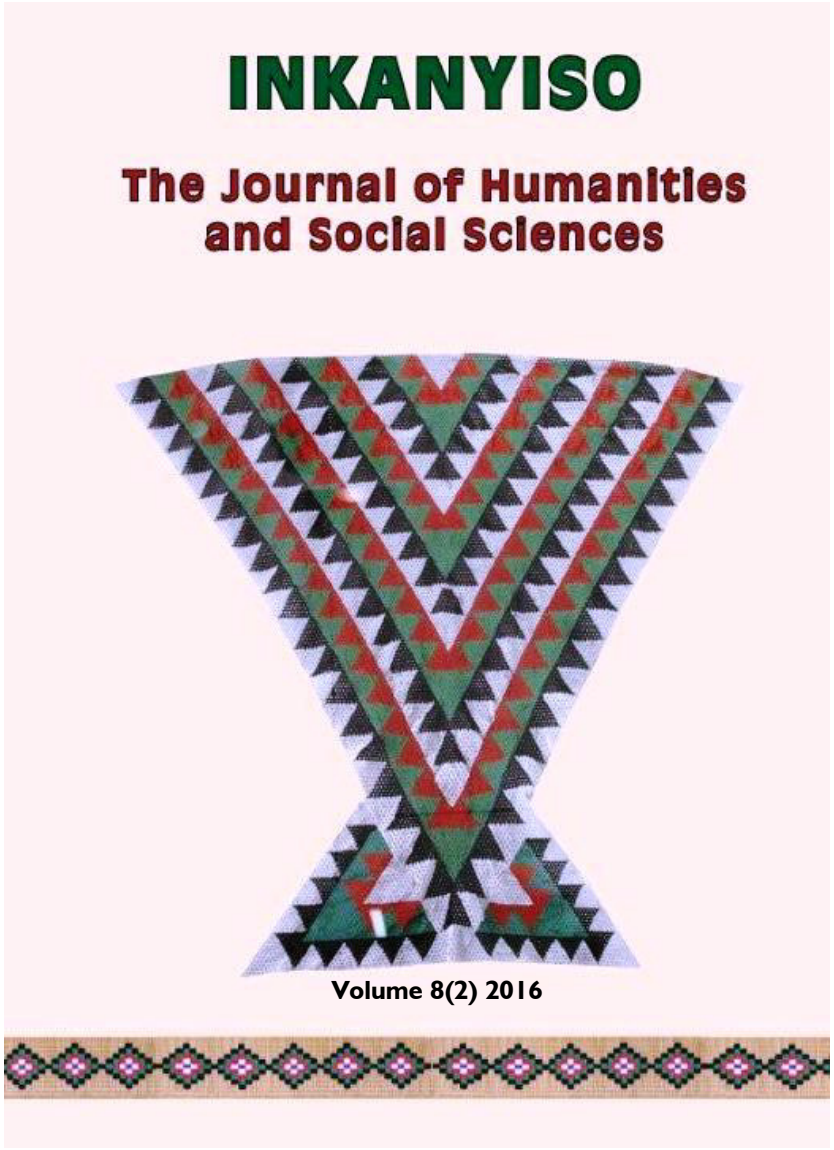

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EDITORIAL

Dear *Inkanyiso* Readers,

I wish to invite you to read *Inkanyiso* Vol 8(2), which consists of eight articles focusing on psychology, philosophy, political science, linguistics and information science.

In the first article, "An integral, positive psychology paradigm for global coherence, research, and health promotion" Steve Edwards, University of Zululand, uses an integral theoretical, positive psychological paradigm to introduce HeartMath and Global Coherence Initiatives as evidence based interventions for promoting coherence, research, health and well-being. He concludes that many more integral healing approaches are needed as is collaboration between all caring stakeholder individuals, communities and countries.

Much has been written about Emmanuel Kant's philosophy. In the second article, Francis Minimah, University of Port Harcourt, interprets the influence of Kant's critical philosophy on Logical Positivism by examining Kant's analysis of the nature, limits and conditions of our knowing process as well as exploring and explicating the relationship between Kant's system and the Logical Positivists. The implication of this article, notes Francis, is to correct the inadequacy of these studies by demonstrating that Kant indeed leaves a lasting influence on the philosophy of Logical Positivism.

Prostitution is one of the oldest 'professions' in the world and also the most researched from many perspectives. In a linguistic study titled "Ideational representation of prostitution and social meaning in Chika Unigwe's *On Black Sisters' Street*", Ikenna Kamalu and Blessing Ejezie, University of Port Harcourt, focus on the role of language in the projection of phenomena by examining ideation as a linguistic tool for inferring or retrieving social meanings encoded in the text. The authors demonstrate how the writer's linguistic choices bring about an understanding of the social experiences and ideology that underlie the discourse under investigation.

African political boundaries were typically crafted by colonists without consideration of their implications. In the fourth article referring to "African colonial boundaries and problems of nation-building", Emmanuel Gbenenye, University of Port Harcourt, attempts to examine the consequences of the Berlin Colonial Conference of 1884-1885 in relation to the creation of the boundaries. Emmanuel concludes that, because of the artificiality and arbitrary nature of these boundaries, each African nation state is made up of people of diverse cultural background, traditions of origin and languages, which posed problems for nation-building in modern African states.

The next three articles focus on information studies. Clinical informatics belongs to health informatics, a part of Information and Communication for Development(ICT4D)/social informatics/ community informatics, which have become growing areas of information science research because of the increased use of information and communication technology in people's lives. Abayomi Owolabi, Thokozani Mhlongo and Neil Evans's (University of Zululand) article on "The status and challenges of clinical informatics development in South Africa" contextualises clinical informatics in South Africa, and recognises the enormous potential it has on healthcare quality in both developed and developing countries by examining the status and challenges of clinical informatics in the South African health care sector. The article provides invaluable information on clinical informatics in South Africa that can be used to inform and support further studies in this growing field, as well as contributing to discussions and debates on the development of social informatics.

In "Serving remote users in selected public university libraries in Kenya: perspectives of the section heads", Mary Njeri Wachira, Jomo Kenyatta University of Agriculture and Technology, and Omwoyo Bosire Onyancha, University of South Africa, argue that the provision of information services to support teaching, learning and research has long been a major objective of libraries in higher education. The authors hope to create awareness of the existence of remote users in academic libraries in Kenya and open up debate on how effectively and efficiently this category of users can be served.

Social media research is growing rapidly. The seventh article, which forms part of information studies in this issue, focuses on 'Maximising the potential of social media to deliver academic library and information services to students. A case study of the technical University of Kenya Library" and is written by Villary Atieno Abok and Tom Kwanya both from The Technical University of Kenya. In this case study, Villary and Tom investigate how academic libraries in Kenya can maximise the potential of social media to deliver their services. They find that that academic libraries in Kenya currently use a variety of social media to facilitate the sharing of information resources, provision of reference services, formation of professional networks, and promotion of library services, but note a lack of resources and infrastructure for social media service delivery. They are of the opinion that the study may be used by academic librarians to apply social media in the design and delivery of information services and products effectively.

Many African countries have failed to develop and implement language policies that favour the use of African languages. The article by Jairos Kangira, University of Namibia, titled "Challenges of the implementation of language policies in Southern Africa: What is the way forward?" acknowledges that at the attainment of independence, most African governments adopted the coloniser's foreign languages as official languages to be used in business, the judiciary, education, local government and parliament, which this trend has largely not changed as indigenous languages in Southern Africa are accorded low variety status vis-à-vis foreign languages. This is mainly due to challenges faced in the implementation of the language policies in these countries. The study recommends the Tanzanian language policy model that formalised Swahili as a national language for all purposes.

Enjoy the reading

Dennis Ocholla- Editor-in-Chief, *Inkanyiso*.

Inkanyiso

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Contents

An integral, positive psychology paradigm for global coherence, research, and health promotion

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Abstract

This study is motivated by many problems confronting planet Earth. Its goal is to promote local and global coherence, research and health. An integral theoretical, positive psychological paradigm is used to introduce HeartMath and Global Coherence Initiatives as evidence based interventions for promoting coherence, research, health and well-being. Interventions are essentially scientific advances on cardiorespiratory based methods which have been used for millennia in various wisdom, knowledge and spiritual traditions such as ancestral consciousness and reverence, Hinduism, Judaism, Buddhism, Taoism, Christianity and Islam. The article reviews research evidence in relation to psychophysiological coherence, which is characterised by a heart rhythm pattern of elevated amplitude in low frequency heart rate variability of around 0.1 Hz. This is associated with synchronisation between various physiological systems, positive emotions, athletes' "zone" experience, enhanced spirituality, effective prayer, personal, social and global coherence and health. For example, research evidence is provided for the effectiveness of an African heart breath healing method, specifically developed around the concept Shiso, an ancient isiZulu respectful (hlonipha) term for a human being, which became an acronym for Spirit (umoya), Heart (inhlizyo), Image (umcabango), Soul (umphefumulo) and Oneness (ubunye). Subsequent independent and collaborative South African research, validating various HeartMath techniques, is described. This includes an African Global Coherence Initiative Site, established on a private game reserve in Kwa-Zulu Natal, providing valuable research data, applicable to all academic fields and scientific disciplines, which is freely available for use. It is concluded that many more integral healing approaches are needed, as is collaboration between all caring stakeholder individuals, communities and countries in the world.

Keywords Integral theory, positive psychology paradigm, global coherence, health promotion

Introduction

The essential theme of this article is that an integral, positive and global psychology involving consciousness transformations, changes of heart and related actions are needed for the many problems confronting Earth. Threats of nuclear war, international terrorism, global warming, overpopulation, unemployment, poverty, illness, injustice, corruption, crime and violence seem to be the order of the day. Most people are locked into an ongoing subsistence and survival struggle, which eats up much precious energy, distorts consciousness, causes illness and exacerbates disorder. The global village desperately needs a global psychology to promote healing in the original meaning of a transformation to health, integrity and/or wholeness. This global psychology needs to represent all planetary inhabitants, in all their diversity, as individuals and members of families, groups, communities and nations. This implies sufficient consciousness, care and collaboration by contemporary humanity in their considerable geographical, historical, religious, political, economic, cultural and other diversity. It also implies comprehensive, equitable and effective approaches (WHO 2013).

An integral, positive psychology paradigm

Integral theory postulates an interrelated universe fundamentally linked through wholes or wholes that are parts of other wholes in an ongoing process of evolution and involution. These processes consist of inseparable events, observable from interior and exterior perspectives, happening moment to moment, with each moment, breath and heartbeat touching the next. An integral approach typically utilises an all quadrants, all levels (AQAL) model, which embraces interior and exterior, individual and collective quadrants or perspectives, at different levels of consciousness ranging through physical, mental and spiritual realms. Integral methodological pluralism facilitates diverse methodologies and truth claims, on any phenomenon or event (Wilber 1997/2007). In simple terms, integral methodological pluralism attempts to create a comprehensive, composite map of all maps that people have created throughout history, using the best essential features of each. A derived all quadrants, all levels (AQAL) model, including lines, states and types, continuously facilitates other new, previously hidden maps of human consciousness, while explicating individual, collective, interior and exterior quadrants

1. Steve Edwards is Emeritus Professor and Research Fellow at the University of Zululand, South Africa

Wilber (2001) instructively pointed out distinct meanings of the term 'paradigm', as originally intended by Kuhn (1962). The first refers to its usual usage as a body of theory or worldview which directs the general quest for knowledge, inquiry and/or research. This may be summarised succinctly as that typical 'do, discover and decide' sequence that characterises scientific inquiry. General and specific meanings are encompassed and integrated in the term praxis, which indicates theory driven inquiry. Positive psychology qualifies as a paradigm in both broad and specific senses of the term. As a body of theory with roots in humanistic psychology, it was pioneered by Seligman and Csikszentmihalyi (2000) to study "positive emotion, positive character and positive institutions" (Seligman 2005:410). Related scientific praxis has led to a proliferation of specific publications and a positive psychology handbook, edited by Snyder and Lopez (2002, 2009), the second edition of which features a biologically orientated chapter by HeartMath Institute researchers introducing their pioneering research on the central role of the heart in generating and sustaining positive emotions. Special focus is on such themes as the physiology of positive emotions and spirituality, the relationship between psychophysiological coherence and positive emotional states, positive emotion focusing techniques and heart-rhythm coherence feedback (McCraty, Atkinson, Tomasino, & Bradley 2009; McCraty & Rees 2009: 527-536).

The Institute of HeartMath's positive psychological paradigm developed through early studies on heart rate variability (HRV), a measure of the naturally occurring beat-to-beat changes in heart rate, which has great value as an index of adaptation, resilience and general health. HRV is generated largely by interaction between the heart and brain via neural signals flowing through the afferent (ascending) and efferent (descending) pathways of the sympathetic and parasympathetic (vagal) branches of the ANS. HeartMath researchers were instrumental in elucidating the key role of the heart, especially in relation to the vagus nerve, with its approximately 80 percent afferent (nerve cells that send signals away from the heart towards the brain) fibres. They recognised that, through its transmission of dynamic patterns of neurological, hormonal, pressure and electromagnetic information to the brain and throughout the body, the heart possesses a more extensive communication system with the brain than other organs. The pattern of the heart's rhythmic activity became the primary physiological marker, as it is the most sensitive measure of changes in emotional states. (McCraty *et al*. 2009). Research indicated that whereas negative emotions were associated with erratic, irregular, incoherent heart rhythm patterns, positive emotions produced coherent heart rhythm signatures.

From a health promotion perspective, psychophysiological coherence is associated with positive emotions such as appreciation, care and love driving the system toward increased HRV, adaptability, resilience, psychological wellbeing, energy efficiency and metabolic energy saving at the optimum resonant frequency of 0.1 hertz, or 10-second rhythm (Childre, Martin, Rozman, & McCraty 2016; McCraty & Shaffer 2015).

HeartMath techniques and tools

In line with its vision to help people establish heart based living, the HeartMath Institute has developed various techniques and tools, which have considerable evidence based, practical health and psychotherapeutic effects in immediately shifting emotional feelings in the moment these are experienced. Emphasis is placed on the awareness of energy depletion, renewal and resilience in preparing for challenges, shifting and resetting feelings after challenges and sustained reliance through regular HeartMath practice. Firstly, energy expenditure is required to better self-regulate, as techniques are practised and anchored. Adherence is facilitated by mentoring for sustaining practice and improved self-regulation. In the second phase, the process becomes less effortful, more automatic and intuitive. Finally, continued practice lifts consciousness and brings more consistent alignment with the moment to moment intuitive guidance of the deeper Self (McCraty & Zayas 2014). Specific psychophysiological coherence promoting techniques include Heart focused breathing, Quick Coherence, Freeze-Frame and Heart Lock-In (Childre & Martin 1999). Tools include emWave, emWave pro and Inner Balance (Institute of HeartMath 2014).

Heart focused breathing. Although HeartMath research revealed that positive emotions are able to drive psychophysiological coherence independently of respiration, heart focused breathing remains a practical, first step in most tools. This conscious step slows the system down and facilitates the identification and focus on a particular positive emotion.

Quick Coherence. Here attention is on heat focus, breathing and feeling. Heart focused attention is maintained on the heart area in the chest centre. While imagining the breath going in and going out through the heart area in a natural inner rhythm, a sincere positive feeling of a place, person, pet, or situation is activated, generated, cultivated, and/or remembered.

Freeze-Frame. In addition to its depth psychotherapeutic implications, freeze-frame may also be used as a one-minute technique that allows a major shift in perception. It consists of five steps. Firstly, a stressful feeling is recognised and "freeze-framed" as a static image. Secondly, heart focused breathing is practised for at least 10 seconds. Thirdly, a

positive, fun feeling or time in life is recalled and sincerely re-experienced. Fourthly, the heart is asked to provide a more efficient response to the stressful feeling and/or situation. Fifthly the heart answer is sincerely listened to.

Heart Lock-In. This involves experiencing heart at a deeper level. Firstly there is heart focus, secondly a positive feeling of love, care or appreciation for someone or context is cultivated. The feeling is maintained for five to fifteen minutes. The feeling of love or appreciation is then sent to self and/or others to provide physical, mental and spiritual regeneration.

The emWave2. When attached to a laptop computer, the instrument gives readings of heart rate, heart rate variability, time elapsed, as well as low, medium, and high levels of physiological coherence as defined above. Feedback consists of red-, blue-, and green-coloured bars with percentage indications and accompanying tones for low, medium, and high coherence levels, respectively. Further feedback is provided by a cumulative coherence graph with a demarcated area for coherence indicating the zone of optimal autonomic nervous system functioning. A feedback tone is provided when 100 coherence points accrue. The apparatus, approximately 2 × 3 inches in size, can be handheld or attached to a computer, for physiological coherence biofeedback purposes.

HeartMath research on the energetic role of the heart in transmitting dynamic patterns of electromagnetic, neurological, hormonal, pressure and emotional information through moment to moment, beat-to-beat HRV communications supports the research of Pribram and Melges (1969), Becker and Seldon (1985), and Schwartz and Russek (1997). Signal averaging techniques provided evidence of electrocardiogram (ECG) signals registered in another person's electroencephalogram (EEG) and ECG, in both physical contact and non-contact situations. Such research provides a plausible mechanism for energy exchanges between healer and client. The presence of electro-magnetic interactions within and between people have vast implications for interpersonal communication, psychotherapy, healing and future related research and praxis, which have hardly been tapped (Lynch 2014; McCraty 2003; Morris 2010; Rosch 2014).

South African research collaboration

HeartMath interventions are essentially scientific advances on cardiorespiratory based methods which have been used for millennia in various wisdom, knowledge and spiritual traditions such as ancestral consciousness and reverence, Hinduism, Judaism, Buddhism, Taoism, Christianity and Islam. For example, South African research has provided independent collaboration of HeartMath techniques. Initial research occurred without the author being aware of this institution or its techniques. In this initial research, various workshops using an African breath psychotherapeutic technique, codenamed SHISO, (Edwards 2012), which uses techniques similar to heart focussed breathing and Heart Lock-In techniques, were found to be significantly effective in improving health and spirituality perceptions as measured on standardised scales and as compared to control groups. Later studies (Edwards 2013, 2014) followed literature review of the Institute of HeartMath research library and personal and communication with Rollin McCraty, Director of Research at HeartMath. These later studies, which used the HeartMath emWave2 apparatus, provided support for the effectiveness of the HeartMath approach both independently as well as incorporating a SHISO type methodology. Further research collaboration with the HeartMath Institute led to the establishment of the African Global Coherence Initiative magnetometer on a private game reserve in Kwa-Zulu Natal. This is one of 12 to 14 monitoring systems that are planned for planet Earth, six of which are currently in operation in providing valuable data.

The SHISO approach needs specific explication as it honours a perennial form of psychology, currently practised in Africa, which has particular human, spiritual, transpersonal and communal dimensions. This is conveyed in the philosophy and practise of *ubuntu* or *umuntu umuntu ngabantu,* an *isiZulu* idiom portraying an ontological and epistemological reality of human socialisation, that 'a human becomes a person through community' or 'I am because we are', where 'we,' by extension, includes family, community, ancestors and ultimately all sentient beings. Its meaning and methodology is described below.

An African breath psychotherapeutic workshop was developed around the concept Shiso, an ancient isiZulu respectful (*hlonipha*) term for a human being (Doke & Vilakazi 1948), which became an acronym for a particular breath-based healing method, standing for Spirit (*Umoya*), Heart (*Inhlizyo*), Image (*Umcabango),* Soul (*Umphefumulo*) and Oneness (*Ubuny*e). The workshop takes the form of five steps, one for each letter of the acronym.

Spirit. *Umoya* is invoked through dancing in a circle chanting *woza moya* in a breath-coordinated way. If space is very limited, this can also be done in sitting or standing positions, using a cleansing and purifying technique (*ukuhlambuluko*) of continuously exhaling using diaphragmatic breathing while aspirating *woza moya.*

Heart. An emphasis on heartfelt experience begins through standing or sitting with hands over one's heart and feeling its beat as energy, oxygen and blood are circulated.

Image. The next stage involves forming an image of the subtle energy system of the breath/soul/spirit-body.

Soul. Contemplative focus on the soul-body follows. For example, initially this can be kinaesthetically visualised as a spark at the centre of the heart, expanding into spirit permeating the entire universe.

Oneness. As consciousness expands, the experience of being breathed by universal Breath, of Spirit embodied in soul, brings awareness of the interconnected inter-being of everything, the shared, collective ground of Oneness and of the need for people of integrity *(ubuntu*) to help each other in healing the universe. This is followed by specific actions and interventions decided by the group.

The Global Coherence Initiative (GCI)

Indigenous peoples across planet Earth, have traditionally lived in a way that honours life as a deeply interconnected whole. For millennia many wisdom, knowledge and spiritual traditions, such as ancestral consciousness/reverence, Judaism, Hinduism, Buddhism, Taoism, Christianity, Islam and perennial philosophy, have recognised this interconnected non-dual reality, which is typically perceived as layered levels of consciousness involving spirit, soul, mind, body and matter, evolving in the reverse direction (Huxley 1958; Lovejoy 1936; Schuon 1984; Smith 1992; Steiner 1999; Gidley 2007; László 2007; Wilber 2007). Integral psychology honours such indigenous knowledge on the profound interconnectedness of everything, where plants, animals, humans, ancestors and all creation interdependently coexist through Spirit as source of self, community and the all.

GCI is specifically based on the HeartMath integral research approach. In addition to abovementioned research on the energetic heart, interconnectedness and the Global Consciousness Project, GCI is also grounded on various other empirical data. For example, studying global human history dating back to 1749, Alexander Tchijevsky compared the occurrence of key historical events with the occurrence of solar cycles over the same time period until 1926. In compiling the histories of 72 countries, he found that 80% of the most significant events occurred during solar maximums, which correlate with the highest periods of geomagnetic activity (McCraty & Childre 2010; McCraty & Deyhle 2015). One likely physical mechanism for interconnectedness is to be found in Schumann electromagnetic resonances in the cavity formed between the earth's surface and the conductive plasma layer of the ionosphere, which is negatively charged relative to the earth's surface. Schumann resonances directly overlap central nervous system bandwidths. For example, the 7.8 hertz hypothetical resonant frequency of planet Earth directly overlaps with the alpha bandwidth, psychophysiological coherence of 0.1 hertz and average 10 second cycle of ocean waves (McCraty, Dehle, & Childre 2012; McCraty & Deyhle 2015).

GCI was launched with a general vision of advancing global health and facilitating the shift in global consciousness from instability and discord to balance, cooperation and peace. The general postulate is the existence of dynamic, information processing exchanges between all living systems and the earth's energetic/magnetic field, allowing encoded information to be communicated subconsciously and non-locally (McCraty & Deyhle 2015; McCraty *et al*. 2012). The specific hypothesis is that human consciousness, emotions and thoughts, interacting with the earth's magnetic fields, encode globally distributed information, which positively or negatively influences all life. GCI central mission is to conduct research on the mechanisms whereby the earth's magnetic fields affect human and animal health and behaviour. This implies testing hypotheses that these fields are carriers of biologically relevant information that connects all living systems and that large numbers of people creating heart-centred states of love, compassion and/or care, will generate a mutually beneficial, coherent field environment. Further goals include determining if changes in the earth's magnetic fields occur prior to natural catastrophes such as earthquakes and tsunamis as well as human disasters such as social upheaval, unrest, and terrorist attacks. A final objective is to monitor global events to determine where GCI members' collective heart-coherent prayers, meditations, affirmations and intentions can be directed (McCraty *et al*. 2012).

GCI uses ultrasensitive magnetometers to correlate data recorded from planet Earth, the human heart, as well as with various other animal, human and geophysical data (McCraty *et al*. 2012; McCraty & Deyhle 2015). In line with the specific vision to establish personal, social and global coherence, the GCI theory of change is based on dynamic, systemic, mutually reinforcing feedback loops between individual, social and global coherence in humanity and the global field environment. In other words, it is hypothesised that as enough individuals increase their personal coherence, this can lead to increased social coherence (family, teams, organisations) and as increasing numbers of social units (families, schools, communities, etc.) become more coherently aligned, it can in turn lead to increased global coherence, all of which is facilitated through such feedback loops between humanity and the global field environment (McCraty & Dehle 2014:422).

Continuing, in depth, critical, theoretical, evaluative, evidence based research is always needed in any scientific endeavour. To date, various scientific studies, freely available on the HeartMath and GCI websites, attest to the individual, interpersonal, social and global health promotional value and research opportunities of this initiative. Relevant information can be found at this site[2] and another [3] with the latter website especially for volunteers wishing to assist with local South African health promotion at the South African Global Coherence Initiative Monitoring Site (GCI6). Research-

ers are specifically motivated to study global coherence[4]. Live data is available.[5] Independent and collaborative South African research has provided substantial and consistent evidence as to the effectiveness of HeartMath techniques (Edwards 2015). Any individual, group, community or nation motivated to promote planetary health and welfare can become global coherence ambassadors at no financial cost. All that is required is heart focused care. For individuals with Internet access the process is explained[6] .Click on GCI care focus, enter the global care room and either click on guided focus care (with or without music), or simply direct heart focused care wherever you feel it is needed. This is an example of a basic moral injunction for caring individuals of all cultures, creeds and countries.

Opportunities for scientific research and praxis

From a being/consciousness perspective, all knowledge disciplines are potentially involved, in that HeartMath and GC1 are contemporary scientific, integrative, evidence based as well as injunctive, skilful strategies to investigate all related phenomena. This includes a mystical and/or theological perspective, that monitoring global coherence has scientific potential to reveal physical, bio-magnetic correlates of contemplation/prayer/meditation. This line of reasoning indicates potential disciplines ranging from physics and chemistry through to theology along a vertical dimension, from psychology through to sociology along the horizontal dimension, and at varying levels of traditional academic depth. More modern pure and applied disciplines such as information and communication science are all included. The major vision and mission could be either pure or applied in focus with scientific potential to promote global, international, South African and local community health and welfare, so this includes social work, nursing, etc.

A tertiary educational research example

GCI research can be undertaken autonomously or in collaboration with international or local scientific, research, health, educational and related institutions and their respective faculties, institutes and departments. Research projects could be pursued at tertiary education/university and National Research Foundation through niche area non-solicited research grants as well as departmental, masters and doctoral student funded grants. Universities, faculties and institutes could similarly research chosen projects at university, institute, faculty and departmental level. For example, university research projects at the University of Zululand, the closest tertiary educational institution to Bonamanzi Game Reserve, on which the African magnetometer is established, could examine interconnecting global information networks at various levels: physical, biochemical, interpersonal, social, spiritual and ecological. Faculty and/or departmental level research examples follow:

Arts

The largest University of Zululand Faculty, Arts, currently consists of the following departments: African Languages and Culture, Communication Science, Creative Arts, Criminal Justice, Development Studies and Anthropology, English, General Linguistics, History, Information Studies, Philosophy and Applied Ethics, Psychology, Recreation & Tourism, Social Work, Sociology. Much research and teaching in this faculty reflects the influence of indigenous knowledge systems, those local, time honoured, traditional, cultural ways of local people employing local knowledge to survive and thrive. Though local in their manifestation, indigenous knowledge systems may or may not be based on evidence or essential scientific processes. However, they are of global interest for their heuristic, creative practicality, application and contextualisation. Whether traditional, conservative, dynamic, and/or activist in intent and effect, products of such systems inevitably originate in oral communities in the absence of writing. Breath, energy, speech, song, meditative, contemplative and/or intercessory traditions form an essential and historical context for all forms of knowledge and culture (Edwards 2011). For example, while Zulu speaking cultural groupings are not necessarily representative of African or Southern African cultures in particular, the available evidence points to such similar patterns in other indigenous cultural groupings that some transferability of findings can be assumed (Edwards 2011). This is not surprising in view of obvious evidence that such traditional, indigenous knowledge, culturally embedded, local systems provided foundations for all contemporary science (Gidley 2007; Wilber 1995). The circular orientation of indigenous African communities is exhibited in their material culture and behaviour, roundness of huts, cattle byres, homesteads, diurnal rhythms of day and night and related colour symbolism in healing. Linguistically the isiZulu terms *indingiliza* and *isidindingilizi* denoting circularity and/or roundness of spherical objects accentuate the emphasis on wholeness, wholesomeness and the whole, health and healing, as conveyed by such terms as *philisayo, philile* and *phelele* (Doke & Vilakazi 1972; Edwards 2011; Mutwa, 2003; Ngubane 1977). Pro-

2. *www.Heartmath.org, www.heartmathsouthafrica.co.za, www.glcoherence.org*
3. *www.live4now.co.za,*
4. *www.heartmath.org/gci*
5. *www.heartmath.org/research/global-coherence/gcms-live-data.*
6. *www.glcoherence.org.*

found interconnectedness becomes especially evident in such themes as *ubuntu* (humanity in all communal and spiritual interrelationships), *ubudlelwana,* (interconnectedness), *ukuhlangana* (coherence), *indaba* (coherent communication), *ubunhlobonhlobo* (diversity in all its relatedness), emphasis on order (*uhlelo*), balance, harmony (*ukulungiso*), dignified movement and rhythm (*isigqi*), balanced ecological relationships and, ultimately, non-dual unity (*ubunye*) (Doke & Vilakazi 1972).

In this context, GCI related research would particularly focus on the literary, philosophical, psychological, social and spiritual benefits of global coherence as perceived and interpreted in local community context. Philosophy could explore perennial intuitive revelations of interconnectedness and/or energy from quantum level, self-organising systems through nurturing care to spiritual love. Qualitative research from language and culturally orientated departments could describe and explicate indigenous theories and practices with regard to enhancing personal, social and global coherence, e.g. exploring connections between traditional Greek and Zulu concepts such as arête (*ubuhle*) and hubris (*ukudlula*). Human scientifically orientated departments could integrate research into indigenous healing, with focus on divination (*vumisa*), ancestral consciousness, non-local healing correlates and effects, the energetics of physical contact, music rhythm and dance. Collaborative research could be undertaken into human and animal emotion, psychophysiological correlates of violent unrest as well as peaceful spirituality, psychophysiological and social programs for persons with HIV/AIDS and the effects of various forms of music and dance on emotional, social and global coherence.

Commerce

University of Zululand Commerce Faculty presently consists of the following departments: Department of Accounting (including Information Technology), Department of Business Management, Department of Economics, Department of Industrial Psychology (incorporating Human Resources Management), Department of Public Administration and Political Science, and the Law Departments (Private law, Public Law, and Mercantile Law). Although GCI is in its infancy, its cosmic and international nature have legal, political and economic implications that could well require much future research, for example, legal research involving copyright and plagiarism issues with regard to HeartMath Institute tools and techniques, as well as actuarial, economic, political and human resource research required to manage local university staff, GCI monitoring sites, website maintenance, research library, increased research production and burgeoning costs and sales.

Education

Vast educational research opportunities exist with regard to development, instruction and evaluation of HeartMath and GCI programs. In line with the mission to research and explore science-based solutions to health and wellness issues and developing strategies to help increase personal, social and global coherence, the free availability of research publications and data on HeartMath and GCI websites[7] are encouragingly facilitative. Educational staff typically carry large teaching loads. In-service training could include an online personal resilience building course[8] both for developing personal resilience and student instruction (Institute of HeartMath 2014). Further studies could involve evidence based research and evaluation of the effectiveness of various HeartMath coherence, biofeedback, health and education programmes for general test, stress and anxiety management from preschool through to tertiary educational level. Other research could target specific programmes for attention deficit hyperactivity disorder, music and/or mathematics performance, learning within a prison environment and education for social justice.

Science

At present the University of Zululand Science Faculty consists of the following departments: Agriculture, Biochemistry and Microbiology, Biokinetics and Sport Science, Botany, Chemistry, Computer Science, Consumer Sciences, Geography and Environmental Studies, Hydrology, Mathematical Sciences, Nursing Science, Physics and Engineering, Zoology and Science Access Department. The Faculty, either alone or in collaboration with other faculties, could conduct interconnectivity research to investigate correlational and/or causative effects of cosmic, solar and geomagnetic activity on plant life and animal health and behaviour; Physics, Agriculture, Hydrology and Botany could work on rainfall patterns, agricultural activity and plant life; Mathematics, Geography and Environmental Studies could provide data on sunspot and magnetic storm activity; Zoology on selected animal behavior; Biokinetics and Nursing Science on assessment and analysis of heart rate variability and coherent heart rhythmic patterns associated with physical activity, ranging from ordinary daily tasks to elite sports performance, chronobiology and geophysical presence of atmospheric negative ions; Biochemistry and Microbiology could evaluate immune and hormonal systems in terms of cortisol, dehydroepiandrosterone (DHEA) and micro-organismic activity.

7. *www.Heartmath.org* and *www.glcoherence.org*
8. *www.heartmathsouthafrica.co.za*

Conclusion

The goal of this paper was to review the HeartMath and Global Coherence Initiative as an integral, positive psychological paradigm, which provides scientific, evidence based interventions for promoting local and global coherence, research, health and well-being. The presentation focused on tertiary educational collaborative GCI research at international, local scientific, health, educational and related institutions and their respective faculties, institutes and departments, with the University of Zululand used as example. Further related research is encouraged.

From a practical positive psychological perspective, HeartMath tools and techniques provide intervention, alleviation and management of everyday human problems such as pain, suffering, stress, tension, anger, anxiety, and depression. This is an unequalled, in the moment intervention and on-going moment to moment coping resource, a scientific, evidence based, updated form of intervention that humanity has used for millennia. HeartMath research indicates that tools and techniques lead to the saving, channeling and harvesting of vital energy as well as building of resilience, life appreciation and positive emotional reframing of above-mentioned negative emotions into joy, excitement, happiness, peace and contentment. Interventions effect consciousness transformations through mindfulness, acceptance and commitment. They improve counseling, psychotherapy, meditation, contemplation and promote integrity, wisdom, moral action and ethical behavior.

Despite all global problems, wonder of wonders, on awakening in the morning, individuals may feel in perfect synchrony with everything within them, as well as being part of everything else. Depending upon spiritual and/or religious orientation, they may interpret their experience as ancestral consciousness, unity consciousness, Brahman, Tao, God, Allah, nondual reality, etc. They may feel changes in heart consciousness and experience perfect health, attuned to the resonant frequency of planet Earth and more. Dante sang of the love that moved the sun and other stars**.** Substantial evidence provided by the Institute of HeartMath on heart energetics and global coherence, supported by intuitive heart consciousness**,** indicates that each individual heart's electromagnetic field radiation, including deeper energetics of coherence and positive emotions such as love, is affecting the earth's electromagnetic field and entire galaxy, on a beat to beat, moment to moment basis. Individuals may decide to convert such feelings, intuitions, meditations, prayers and contemplation into creative, global health promotive behaviour. They may choose to commit to a regular practice of HeartMath techniques. Individuals and collectives may decide to become Global Coherence ambassadors. Planet Earth desperately needs many such consciousness transformations, changes of heart and related actions. HeartMath Global Coherence Initiative constitutes one excellent example of a global psychological approach to health promotion. Many more integral healing approaches are needed, as is collaboration between all caring planetary stakeholder individuals, communities and countries.

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The influence of Kant's critical philosophy on Logical Positivism

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Abstract

This paper attempts to show the influence of Kant's critical philosophy on Logical Positivism. In order to achieve this objective, we set out in the first half to examine Kant's analysis of the nature, limits and conditions of our knowing process. Having established Kant's position, the burden of the second half is precisely to explore and explicate the relationship between his system and the Logical Positivists. Most studies on the Positivists do not deal with the possibility of an influence exercised by Kant's transcendental strategy. The more general reason has to do with the mistaken belief that a philosophical theory can be separated from the intellectual culture in which it is articulated. It has become fashionable to evaluate a philosophical position without taking into account either the roots of the idea in the history of philosophy or the way in which the position emerges within a system of thought. This is one reason why the most intriguing part of the twentieth century philosophy has not been understood – not enough attention has been paid to the indebtedness of the Positivists to the Kantian tradition. This work tries to correct the inadequacy of these studies by demonstrating that Kant indeed leaves a lasting influence on the Logical Positivists' philosophy.

Keywords: Immanuel Kant, critical philosophy, influence, Logical Positivism

Introduction

That a philosophical tradition influences culture and culture stimulates thought is consistent with the view that thought and culture are reciprocally causes and effects of each other. Such was David Hume's revolutionary view against reason and nature to which Immanuel Kant's critique was a response, which in turn became a great source of philosophical speculation for many other philosophers, notably the Logical Positivists. Their speculations were responding indirectly to the cultural factors that prevailed in Kant's days. The history of philosophy since Kant is to a great extent the history of his influence; interpretation, transformation, critique and re-assessment of his ideas. To give an adequate account of Kant's influence either positively, negatively or in the neutral sense (which only suggests his extra-ordinary importance) is to rewrite the history of post-Kantian philosophy. In him, as truly perhaps as in Descartes, philosophy made a new beginning such that most of those who came after him were influenced by one or more aspects of his teachings. It is remarkable that of all the historical figures in modern philosophical tradition, Kant has been the most influential in the West. A great number of the philosophical controversies of the late twentieth century can be greatly clarified only by a recognition and understanding of their Kantian origin. The Logical Positivists' paradigm of two types of judgements – analytic (*a priori*) and synthetic (*a posteriori*) and their rejection of synthetic *a priori* judgement as established by Kant in the eighteenth century is one example. The second consideration is based on the verification criterion and metaphysics. Here, it is important to view the Verificationists' epistemology in the light of this distinction that Kant had established. In advancing this, the Logical Positivists' principle of verification is supposed to constitute the yardstick for determining whether a proposition is literally meaningful or not. For them, a simple way to formulate it is that a proposition has literal meaning if what it expresses was either analytic or empirically verifiable. In this, the Positivists' problem against the metaphysician is not that they try unlike Kant to apply the categories of the understanding beyond the bounds of possible experience but because they produce sentences which do not conform to the test of being empirically verifiable. Kant equally rejects the metaphysicians for the same reason, accusing them of ignoring the conditions of knowledge in order to discover the limits of the human understanding, whereas the Logical Positivists accuse them of disobeying the rules that govern the limits of language in order to formulate a general criterion of its usage. The third historical thread that stands out especially significant connecting the Logical Positivists to the Kantian heritage that will be examined is the separation of science from religion. For them, there is an attempt to set up a world of value different from the world of possible experience. By so doing, the Positivists are seen as a continuation of the tendency that is characteristic of the philosophy of Kant. As we shall see, the reading that is to follow traces the very different ways in which Kant's thoughts affected the Positivists. But before giving these essential details, let us begin with an analysis of his critical philosophy.

Kant's critical philosophy

Kant, perhaps the greatest German philosopher of the modern period, was influenced by Martin Knutzen, a professor of logic and metaphysics at the University of Konigsberg, from whom he developed an interest in the philosophy of Christian

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Wolff – a follower of Leibniz. During this period, Kant's interest irrespective of his lectures on logic, mathematics and metaphysics, was in the external world. That was why he devoted much time to the relationship between metaphysics and the natural sciences that culminated in the publication of his *Universal History of Nature and Theory of Heavens* in 1755 – a work in which he attempted to explain the structure of the universe using Newtonian physics. In 1760, Kant's interest started moving into the outer limits and innermost nature of the cosmos; that is, the moral nature and knowledge of human beings. He started moving away from the traditional metaphysics of Descartes and Leibniz, in terms of what people know, to how people know or what conditions make 'knowing' possible. This movement was occasioned by his acquaintance with Hume's work, which as it were awakened him from his rationalist 'dogmatic slumber' (Kant 1950:8). It must be emphasised that the seventeenth century rationalists had tried to formulate thoughts from their given stock of innate ideas where they attempted to deduce the knowledge of objects, while the eighteenth century empiricists had sought to present human knowledge as being derived solely from sense experience and induction. Hume, though an empiricist, stretches this process to its limits and shows that experience cannot provide any justification for the basic principle of causality. In his view, we psychologically assume that our impressions of contiguity, priority in time and space and constant conjunction do imply the existence of a necessary connection that supports the principle of causal necessity and its attendant negative consequences for objective scientific knowledge.

Being dissatisfied with rationalists' tradition and the skepticism of Hume's empiricism, Kant felt that both positions produced chaos and anarchy. His central project in the first *Critique* of 1781, therefore, is to bring order to human knowledge. In his view, there is no knowledge without reason and experience. Only in their synthesis do we make legitimate claims about the world. In order to formulate a novel conception of objectivity in knowledge which he calls transcendental or critical idealism, Kant agrees with the empiricists that all knowledge begins with experience. He raises an epistemic question which borders on metaphysics, namely: "Is there any knowledge that is independent of experience and even of all impressions of the senses? Such knowledge is entitled *a priori* and distinguished from empirical, which has its source *a posteriori*, that is in experience?" (1929:42-43). Kant is here asking whether there is something such as analytic or *a priori* judgement?

> The expression '*a priori*' does not however indicate with sufficient precision the full meaning of our question. For it has been customary to say even of such knowledge that it is derived from empirical sources, that we have it or are capable of having it *a priori*, meaning that we do not derive it immediately from experience but from a universal rule, a rule which is itself borrowed from experience (1929:43).

In doing this, Kant is pre-empting a viable condition for a meaningful discussion of a non-experiential being. Simply put, he is implying that metaphysics without epistemology is impossible. In the course of elaborating his theory, Kant introduces his dictum of dichotomy. According to him "… though all our knowledge begins with experience, it does not follow that it all arises out of experience" (1929:41). This statement can be explained from two logical concepts, namely necessary and sufficient conditions. A necessary condition is one without which a thing would not occur or exist, while a sufficient condition is one which when given, something else automatically exists or occurs. Kant's dictum can be re-phrased in the light of the above logical explanation to mean that even if sense experience is a necessary condition of knowledge, it is not a sufficient condition.

Against the contingency of empirical knowledge, Kant is of the opinion that there must be another kind of knowledge which is both necessary and absolutely universal. Such knowledge is necessary because it does not owe its validity to empirical verification. Its negation will always introduce a contradiction while it is universal because it holds for every place and every time. This kind of knowledge Kant calls analytic judgements. An analytic judgement is one in whose truth is guaranteed by the meaning that is discoverable through the analysis of the terms used. In Kant's view, "… the connection of the predicate with the subject is thought through identity" (1929:48). Far from telling us anything new, analytic judgements logically entail what we already know. The "predicate B belongs to the subject A, as something which is (covertly) contained in this concept A" (1929:48). Here too, some analysis of the above statement is necessary, otherwise one may through misunderstanding commit Kant to a logical error. It is on the level of 'predicacy' that he makes such an assertion. He is not saying that the predicate is contained in the subject as any object relates to its container. This would run him to a logical misappropriation because predicates are larger in extension than their subjects. His examples of analytic propositions include (i) "All bodies are extended"; "The whole is equal to itself"; "The whole is greater than its parts"; "A triangle has three angles"; "God is omnipotent" (1929:48, 54, 502); "Gold is a yellow metal"; "No bodies are unextended" (1950:14). When we say 'Rose is a flower', the concept of 'flower' is larger than the concept of 'rose'. There is no logical method through which we can fit a larger entity into a smaller container. It is in this sense that Kant uses the word 'covertly contained' in a distributive way. In the example 'a bachelor is an unmarried man', the predicate 'unmarried man' is distributed in the subject 'bachelor', while the subject 'bachelor' is related to the predicate 'unmarried man', in the same way. This is how the predicates in analytic judgements are 'covertly contained' in

their subjects or vice versa. Kant contrasts analytic judgements with synthetic judgements. In the latter type, the connection of the predicate with the subject "is thought without identity" (1929:48). Here, the predicate "B lies outside the concept A, although it does indeed stand in connection with it" (1929:48). "All leaves are green" or "All bodies are heavy" (1929:49) is Kant's example of a synthetic judgement. This means that the predicate 'green' does not necessarily characterise 'all leaves'. It is quite unlike the relationship that exists between the subject and predicate in analytic judgement – 'a bachelor is an unmarried man'. In the second case, the concept of 'bachelor' is necessarily connected to the concept of 'unmarriedness' and adds nothing to the content of knowledge. But in the first case we are considering a predicate 'green' which is not necessarily connected to the subject 'all leaves'. In synthetic judgements, therefore, the predicate is accidental to the subject and this extends our knowledge of the world (1950:14).

At this stage, Kant's arguments rest on the general doctrine that the only meaningful propositions are essentially *a priori*, necessary or analytic truths or they are *a posteriori*, contingent or synthetic truths. On this dichotomy, Hume drew the conclusion that any metaphysical proposition must be meaningless since it would be either analytic or synthetic. Thus, from Hume it was already becoming apparent to Kant that empiricism denies the possibility of metaphysics while upholding the truths of mathematics and natural science (physics). Kant thought that the problem of the status of mathematics, natural science and metaphysics is central to his whole philosophical enterprise. In contrasting our knowledge of mathematics and natural science with metaphysics, Kant argues that the general claims of these disciplines are synthetic *a priori* judgements. He tells us that "in all theoretical sciences of pure reason, synthetic *a priori* judgements are contained as principles" (1929:52). It should noted, however, that Kant uses 'judgement', 'knowledge' and 'proposition' interchangeably. His reason is that all knowledge is a product of judgement and all judgements are expressed in propositions or statements. He offers the most conspicuous examples in mathematics, namely the proposition "7+5=12" (1929:52) while the propositions "in all changes of the material world, the quantity of matter remains unchanged" (1929:54) and "the world must have a first beginning" (1929:55) are examples of synthetic *a priori* principles in natural science and metaphysics respectively. In all these examples, Kant shows that the truths of these propositions are presupposed in the interpretation of experience. For each claim to be true, it would not refer to a particular time and place, but must be strictly universal and necessary. Thus, when Kant in the opening sections of the *Critique* asks the question "How are synthetic *a priori* judgements possible in mathematics, natural science and metaphysics?" he is in effect asking the question about the status of the general truths of these disciplines as synthetic *a priori* knowledge. For him, it is such truths as these that are required for the proof or defense of objectivity. In the 'Aesthetic' and 'Analytic', Kant is concerned to discover how this can be established in mathematics and natural science, while in the 'Dialectic' he shows the impossibility of its demonstration in metaphysics.

To investigate the possibility of synthetic *a priori* knowledge in mathematics and natural science, Kant aims to show that these judgements define the necessary conditions of experience and by extension how objective knowledge of the world is possible. He argues that experience has a structure namely space and time which are intuited *a priori*. As the base for the formation of mathematical concepts, they are the representation of the form or necessary conditions of viewing appearances of objects as sensible intuitions in the mind. In this way, Kant's problem is: Given a universe, how can we know it? In his view, when we make judgements about the world, the understanding (apart from space and time which are forms of sensible intuitions) brings the *a priori* categories of unity, causality, substance, necessity, existence, etc. to bear on our experience using these concepts in judgements. He contends that without the condition of sensible intuition that interplays with concepts or categories, the possibility of any object is incomprehensible. In a famous remark Kant says: "Thoughts without content are empty, intuition concepts are blind" (1929:93). He holds that because of the role of space and time and the categories (as *a priori* intuitions and concepts of pure understanding) which justifies them as valid laws that describe the workings of nature, our knowledge of objects within this formulation is synthesised as phenomenal (that is objects as they appear to us) to differentiate them from noumenal (objects as they are in themselves). Thus, when Kant says that objective judgement refer to objects to be true, he does not mean that they must refer to objects existing independently of the perceiver but of phenomenal 'objects' which "are nothing but mere representations of our sensibility" (1929:74). This is the idea that is compared to the Copernican revolution which reversed the traditional scientific belief of the sun orbiting the earth. In the same way, Kant (contrary to the claims of his predecessors) argues that the human mind acquires knowledge by imposing the *a priori* laws of the understanding upon experience. He gives the name 'transcendental ideas' to the concepts of pure reason just as he gives the name 'categories' to the concepts of pure understanding. The pure concepts of reason then, Kant contends, are necessary in so far as they set us the task of extending understanding as far as the unconditioned. It is important to note, however, that because such concepts arise from the very nature of reason, they have no corresponding empirical employment and so can have "… no other utility than that of … directing the understanding" (1929:316). Kant therefore calls the objective employment of pure concepts of reason 'transcendent', by which he means an employment extending or overlapping the limits of experience while the

employment of the pure concepts of understanding (the categories) he calls immanent, that is applying only to possible experience.

In determining the scope and limits of knowledge, Kant speaks of metaphysics as "the battle-field of … endless controversies" (1929:7) and of his own aims as those of its "reform and restoration" (1929:8) by instituting "a tribunal which will assure to reason its lawful claims and dismiss all groundless pretensions" (1929:9). In exposing its lack of credentials in areas where it has no legitimacy, Kant tells us that the "… unavoidable dialectic of pure reason" (1929:300) occurs when the *a priori* categories of human understanding which are not meant to be used outside experience are objectively employed to apply to things in themselves. By so doing, the metaphysician is led to overstep the limits of possible experience to produce transcendental ideas as demonstrated in the illusion of speculative psychology (parallogism – fallacious syllogism about the self erroneously taken as object of knowledge). Similarly, when the metaphysician attempts to transcendentally investigate the world as he does in speculative cosmology, he is inevitably led to a 'conflict' of reason consisting of the antinomies (contradictory positions with theses and antitheses about the world on issues bordering on space and time, substance, causality and the idea of an absolute, necessary being as the cause of the world or its parts) and when he tries to inquire about the knowledge of God (speculative theology), the idea of pure reason is unavoidably involved in an illusory proof of God's existence as if it is an object of experience. Kant believes that these illusions can be resolved once we realise that the legitimate theoretical function of reason is not to give us knowledge of the self, cosmos and God (because such transcendental entities or ideas which are not given to us in experience are beyond the power of minds to shape) but to serve as regulative guidelines of the way we think in providing a unity and coherent whole to human knowledge in our attempt to ask many unresolved metaphysical questions.

It is significant to note that Kant's limitation of knowledge to the spatio-temporal realm was to understand our experience not only in the defense of scientific knowledge but also in the defense of moral and aesthetic values. In proposing a moral departure for religious beliefs, Kant claims that religion arises from our moral obligation as duty, as a rational necessity. For religion is nothing else than "the recognition of all duties as divine commands" (1996:156). In the absence of the moral law, Kant insists that man would never know himself to be free and without freedom morality is impossible. For man to be ethical, he has to be free. From this, Kant thus formulates the fundamental law of pure practical reason as (i) let your action be a universal law (ii) let men be treated as ends not as means. These laws are not man-made. They are categorical imperatives. Categorical because they are unconditioned, universal, objective and independent of human feelings; they are imperatives in the sense that they are experienced with a sense of duty, as an inner necessity occasioned by reason. They presumed or presupposed something religious – that is there is a law giver (a God) who guarantees their success. Obeying them requires the idea of justice by rewarding people according to their adherence or otherwise.

Kant and the Logical Positivists' philosophy

A philosophical idea can impact on subsequent thought in the following ways, namely the positive sense in which case an idea may be fully assimilated in its entirety. One may also be wholly influenced by an idea in the negative sense but at the same time use the idea in different ways with different applications, while in the neutral sense one may be influenced by an idea but in the long run takes a completely radical departure by constantly reviewing the original position in order to reach an equilibrium. Peter Bodunrin once argued:

> It is often not realised that the influence of one philosopher over another is attested not only by the similarity of their thoughts but by their dissimilarity. The works of one philosopher may lead another to follow a different path, when we say he reacts against the former (1987:8).

It is in the above senses that the influence of Kant's critical philosophy by the close of the eighteenth century gave an extra-ordinary impetus to the study of problems concerning the scope and limitations of human certitude. This influence was felt among the exponents of the traditional 'philosophy of the schools' such that the agenda for practically every philosophical movement during the nineteenth and late twentieth centuries were significantly refined, shaped and impacted by Kant . W. T. Jones lent credence to this when he observes that:

> Kant's influence was too powerful … For a long time to come everyone (including the Logical Positivists) thought not only in his terms, but largely in his vocabulary … and … found reasons for developing his thoughts in a different direction … (1952: 101).

The term 'Positivism' was first used by Henri de Saint-Simon (1760-1825) to describe the use of scientific method in sociology and philosophy. Through Auguste Comte (1778-1857), the school became a great philosophical movement in the Western world during the second half of the nineteenth and the first decade of the twentieth century. For them, science is the only valid knowledge and as such philosophy should not possess a method different from science's.

Positivism abandons any alleged knowledge that goes beyond experience and any method of investigation other than the scientific method. In his conception of a positive science of society, Comte for example confines himself to the concept of experience and demands the removal of all metaphysical elements from science by being resolutely opposed to the *a priori* speculations of the German idealists like Kant and the neo-Kantians – G.W.F. Hegel (1770-1831), J.G. Fichte (1762-1814), F.W.J. Schelling (1775-1854), L. Feuerbach (1804-1872), etc. This tradition resulted in the anti-metaphysical posture of empirical positivists like J.S. Mill (1806-1875), R. Avenarius (1834-1896), Ernest Mach (1838-1916), etc. whose doctrines according to W.H. Walsh were that "science is fundamentally the description of experience" (1967:52). Thus, it is safe to say that Positivism as it may be is rigidly 'empiricist' in the eyes of it exponents. As a radical projection of the British empirical tradition, its most direct influence could be traced to Hume's and particularly Kant's rejection of speculative metaphysics. With such a powerful influence, the Positivists developing Kant's ideas along different lines began to see in Wittgenstein's *Tractatus* and the writings and teachings of G.E. Moore and Bertrand Russell the bedrock for building their philosophical enterprise. In that work, Wittgenstein had said, "what can be said at all can be said clearly; and whereof one cannot speak thereof one must be silent" (1999:27) and hence to the effect that "philosophy is not a body of doctrines but an activity" (1999:4.112). This remark of Wittgenstein coupled with Moore and Russell's insistence that the task of philosophy is merely to make clear what it is that we know and how we know it when we assert propositions to be true that greatly influenced the spread of the Positivists' philosophy.

Consequently, in the first quarter of the twentieth century, a group of eminent scientists and intellectuals – A. J. Ayer, Rudolf Carnap, Phillip Frank, Frederick Waismann, Otto Neurath, Hans Hahn, Herbert Freigl, Kurt Godel, Victor Kraft and Felix Kaufmann under the leadership of Moritz Schlick, a physicist, converged in Vienna to reconstruct philosophical thinking and proposed a consistently methodological perspective. Although the intellectual background of these great minds varied, their strongest common interest was not only on how to confront and resolve the hitherto philosophical problem of traditional speculative philosophy as a description of ultimate reality but also a continuous radical reaction against speculative German metaphysics and system building. The philosophy of this group which later came to be known as the 'Vienna Circle' was also referred to as 'Logical Positivism', 'Logical Neo-positivism', 'Logical Empiricism', 'Consistent Empiricism' and 'Scientific Empiricism'.

> … the members of the Vienna circle moved away from Kant owing to their professed empiricism, they did nonetheless adopt the Kantian project of founding science on an unshakable basis in another form that drew them nearer to Hume and in particular, to a more modern current of thought … (Delacampagne 1999:96).

In brief, this Kantian and Modern perspectives could be found in the unification of science attainable through the unity of language (precisely the language of physics), the conspiracy against metaphysics in all its disguised forms and the total indifference to ethical concepts. According to Robert Martin, the Positivists "discard all the overblown wooly pretentious nonsense that had passed as philosophy for centuries" (2001:7). Thus, like Kant, their aspiration to rebuild the foundations of philosophy were committed to a scientific conception of the world that could find meaningful expression in all areas of life. In Ayer' own words, he says:

> One of the principle aims of the Vienna Circle was to rebuild the bridge between philosophy and science which had been largely broken by the romantic movement and the accompanying rise of idealist metaphysics at the beginning of the nineteenth century. Indeed, its members saw the future of philosophy as consisting, once the fight against metaphysics had been won, in the development of what they called the logic of science (1977:129).

In the Logical Positivists' conception of the logic of science, the use of the syntax of scientific language was to play a fundamental role in this venture only if it meets the requirements of clarification of concepts by means of logical analysis. It is in this recourse to the systematic pursuit of clearness, logical precision and the rigorous intellectual commitment to grapple with the problem of meaning that Gustav Bergmann tells us how a clever Englishman once proposed the equation that "Logical Positivism is Hume plus mathematical logic" (1954:33).

Analytic and synthetic dichotomy

Kant's influence on the Logical Positivists' philosophy presents itself first in two main ideas which form the heart of his system. These are (i) the recognition that all forms of logical and deductive reasoning as a whole are analytic, in which case they elucidate the meaning of words such that their predicates are contained in their subject terms, but yield no new knowledge about the world, while (ii) all empirical propositions are synthetic, in which case their predicates are not parts of the subject terms, but add new information that expands our knowledge of the world. As we have seen in our analysis of the critical philosophy, Kant's classification of judgement into analytic and synthetic propositions has a long history from antiquity. While some notions of the *a priori* and *a posteriori* were contained in Aristotle's philosophy in the Ancient period, St. Thomas Aquinas, Boethius and others in the medieval period defined 'self-evident' (analytic) propositions as

those in which the predicate terms are contained in the subject terms. This agrees with the claims of the rationalists that all truths are analytic in contrast to the claims of the empiricists who think all truths are synthetic. Leibniz and Hume for example took over the distinctions between 'truths of reason' and 'truths of fact' and relations of ideas' and 'matters of fact' respectively. By Kant's time, the term analytic had come to mean propositions which are found in the analysis of their subject concepts. They are therefore *a priori* knowledge, independent of experience, while synthetic propositions are *a posteriori* because their truths cannot be established by the analysis of their subject concepts but have to be learnt from observation and experience.

By drawing a similar distinction between these two concepts, the Positivists "preserve(d) the logical import of Kant's distinction between analytic and synthetic propositions" (Ayer 1952:78). According to them:

> … we say that a proposition is analytic when its validity depends solely on the definitions of the symbols it contains and synthetic when its validity is determined by the facts of experience. Thus, the proposition 'There are ants which have established a system of slavery' is a synthetic proposition. For we cannot tell whether it is true or false merely by considering the definitions of the symbols which constitute it. We have to resort to actual observation of the behaviour of ants. On the other hand, the proposition 'Either some ants are parasitic or none are' is an analytic proposition. For one need not resort to observation to discover that there either are or are not ants which are parasitic. If one knows what is the function of the words 'either' 'or' and 'not' then one can see that any proposition of the form 'Either P is true or P is not true' is valid, independently of experience. Accordingly, all such propositions are analytic. It is to be noticed that the proposition 'Either some ants are parasitic or none are' provides no information whatsoever about the behaviour of ants or any matter of fact. And this applies to all analytic propositions. None of them provide any information about any matter of fact. In other words, they are entirely devoid of factual content … It is for this reason that no experience can confute them (Ayer 1952:78-79).

In the same way, Carnap also argues that:

> (Meaningful) statements are divided into the following kinds. First there are statements, which are true solely by virtue of their form ('tautologies' according to Wittgenstein; they correspond approximately to Kant's 'analytic judgements'). They say nothing about reality. The formulae of logic and mathematics are of this kind. They are not themselves factual statements but serve for the transformation of such statements. Secondly, there are the negations of such statements ('contradictions'). They are self-contradictory, hence false by virtue of their form. With respect to all other statements, the decision about truth or falsehood lies in the protocol sentences. They are therefore (true or false) empirical statements and belong to the domain of empirical science (1978:76).

Following the above position, the Logical Positivists openly declare their derivation from Kant of the view that every significant or meaningful proposition must be either analytic (*a priori*) or synthetic (*a posteriori* or empirical) whose usefulness or significance is to provide us with a clarifying picture of our knowledge. Yet, while Kant introduced the distinction between analytic and synthetic statements as a way of establishing the limits of knowledge, the Positivists on the other hand subscribe to the view that linguistic expression could be exhausted by a similar distinction. This implies for the Logical Positivists a rejection of Kant's third classes of judgement, the synthetic *a priori* propositions. According to Kant, it is the demonstration of such truths as these that are required for the proof of objective empirical science. Thus, the problems of objectivity and synthetic *a priori* knowledge in Kant are ultimately connected. This view is discussed extensively in one of the most famous sections of the *Prolegomena* titled "Second Part of the Main Transcendental Problem" (1929:28ff) where he tries to show the possibility of a pure science of nature consisting of propositions that are synthetic *a priori* in the sense that objects of experience must of necessity conform to certain *a priori* conditions. For the Logical Positivists, there is no such a thing as synthetic *a priori* truths as demonstrated by Kant in the foundations of mathematics and natural science. In fact, it is precisely in the rejection of the possibility of (Kant's) synthetic knowledge *a priori* that the basic thesis of modern empiricism lies" (Sarkar (ed.) 1996:330).

The verification criterion and metaphysics

With the classification of meaningful propositions into an analytic-synthetic distinction and the rejection of the synthetic *a priori* type stemming from the Kantian tradition (that we cannot make sense of the claim to understand the world beyond our experience), the Logical Positivists were led to the formulation of a criterion for determining the meaningfulness of propositions. This criterion which was henceforth and collectively referred to as the 'verifiability principle' (VP) saw the declaration of war "not only on classical metaphysics – with strict reference to the systems of the scholastics and German idealism – but also the veiled metaphysics of Kantian and modern a priorism" (Carnap *et al*. 1966:485). (Though, unlike the Positivists', Kant in the dialectic never rejected all forms of metaphysics. What he rejected was the rationalist

dogmatic metaphysics of the traditional type). The main impetus in the formulation of this fundamental principle was the search for meaning. According to Ayer, "the principle of verification is supposed to furnish a criterion by which it can be determined whether or not a sentence is literally meaningful" (1952:5). As was originally conceived by members of the Vienna Circle, the Verifiability Principle was expressed as saying that "the meaning of a proposition is its method of verification" (Schick 1968:443). Ayer contends that:

> A sentence is factually significant to any given person, if and only if he knows how to verify the proposition, which it purports to express – that is if he knows what observations would lead him under certain conditions to accept the proposition as being true or reject it as being false (1952:35).

The underlying import of the verification criterion was that there are no abstract universal or *a priori* principles, no presumptions of a general kind whether these are philosophical or theoretical. For them, everything must be reduced to the 'given' of experience by being inter-subjectively testable. By formulating this precise criterion of verification, the Logical Positivists hope to make possible a strict scientific discussion of all philosophical questions.

Among the Positivists there was no agreement as to the nature of the verifiability principle itself. While some insist that it should be completely verified, 'practical verifiability' ('direct' or the 'strong sense'), others accept that it is enough to be verifiable in principle ('indirect' or the 'weak sense'). A proposition is said to have a direct method of verification when it asserts something about an experience which can be effectively tested or verified by immediate perception. For example, if we say 'it is raining'. This is verified by our present experience. Whereas an indirect method of verification is employed when the proposition cannot be verified directly through one's immediate perception. For example, the proposition that 'the earth revolves round the sun in 365 days' is not directly or immediately verifiable (practical verifiability) but it is indirectly verifiable (verifiable in principle) because we can find some means of going out of our planet to verify the movements of bodies. But this statement is at least verifiable in principle. This means that even if we cannot at the present time verify the proposition, we can at least describe the conditions under which this verification is possible. Carnap argues that the direct and indirect methods of verification are very crucial in scientific investigation because they assert something either about our present or future experiences. Against this backdrop, speculative metaphysics according to the Logical Positivists fails to meet their criterion of meaning and therefore all writings purporting to deal with supra-sensible and transcendental realities were regarded as the production of nonsense. In Ayer's words,

> We may accordingly define a metaphysical sentence as a sentence, which purports to express a genuine proposition but does, in fact, express neither a tautology nor empirical hypothesis. And as tautologies and empirical hypothesis form the entire class of significant propositions, we are justified in concluding that all metaphysical assertions are nonsensical (1952:41).

Within the Vienna Circle itself, Schlick had earlier published an article entitled "Experience, Cognition and Metaphysics" in 1926 in which he argues that the pretensions of the metaphysicians to have knowledge in the transcendent sense is impossible because this involves a contradiction. In his view, the metaphysician could have knowledge of his experience by enriching life through poetry and the works of art. But once he attempts to absolutely experience the transcendent, he is confronted by contradictions that confuse the art of living with the notion of knowledge and truth; thereby chasing empty shadows (1979:110-111). In the Positivists' view, "the traditional disputes of philosophers are for the most part unwarranted as they are unfruitful" (Ayer 1952:33). They advocate as a solution the determination of the purpose and method of a philosophical inquiry; and proceed along the Kantian intellectual legacy to reject the metaphysical thesis that "philosophy affords us knowledge of a reality transcending the world of science and common sense" (Ayer 1952:33). For Ayer, "it is possible for us to be … metaphysician(s) without believing in a transcendental reality" (1952:33). Metaphysical assertions arise as a result of "the commission of logical errors (in our linguistic usage) rather than to a conscious desire on the part of their authors to go beyond the limits of experience" (Ayer, 1952:33). These logical errors are due to the fact of distinguishing a thing from its sensory properties such that when we ascribe properties to a thing, we invariably assert that it exists. In this way, we cannot according to the Positivists validly move from the evidence of the senses to arrive at the conception of a transcendental reality. In their submission, "… from the empirical premises nothing whatsoever concerning the properties or even the existence of anything super-empirical can legitimately be inferred" (1952:33). Interestingly, this implies that there is no logical warrant to transit from the empirical to the non-empirical and to venture into the world of transcendence is logically unjustified. In their views, metaphysicians "who raise questions about Being … based on the assumption that existence is an attribute are guilty of following grammar beyond the boundaries of sense" (Ayer 1952:43).

Carnap also argues that the application of the verifiability principle to metaphysics proves that it is non-verifiable and that if any effort is expended on verification, the product or result is always negative. He posits that "many words of metaphysics … (are) devoid of meaning" (Ayer (ed.),1978:65). He goes on to illustrate this with the term principle (in the sense of principle of being, not principle of knowledge or axiom). Carnap observes that "various metaphysicians offer an

answer to the question which is the (highest) 'principle' of the world" (Ayer ed., 1978:65), in terms of water, number motion, etc. In showing the meaning of the term 'principle' in the above metaphysical question, he contends that:

> We must ask the metaphysician under what conditions a statement of the form 'X' is the principle of 'Y' would be true and what conditions it would be false. In other words; we ask for the criteria of application or for the definition of the world 'principle' (Ayer ed., 1978:65).

Carnap posits that for this question the metaphysician would reply that " 'X' is the principle of 'Y' is to mean 'Y' arises out of 'X', the being of 'Y' rests on the being of 'X', 'Y' exists by virtue of 'X' and so forth" (Ayer ed., 65). Carnap believes that these words are imprecise and ambiguous. He says:

> Frequently they have a clear meaning (when) for example, we say of a thing or process 'Y' that it 'arises out of 'X' frequently or invariably followed by things or processes of kind 'Y' (causal connection in the sense of a lawful successions). But the metaphysician tells us that he does not mean this empirically observable relationship (Ayer ed., 1978:65).

The metaphysicians, according to Carnap, cannot resist the attempt of making their propositions non-verifiable because if they do, then they would be merely empirical propositions belonging to the domain of empirical science whose truth or falsehood would be based on experience. Carnap equally observes that "the expression 'arising from' is not to mean here a relation of temporal and causal sequence which is what the word ordinarily means. Yet, no criterion is specified by the metaphysician for any other meaning" (Ayer ed., 1978:65). Carnap therefore contends that "the alleged 'metaphysical' meaning which the word is opposed to have here in contrast to the mentioned empirical meaning does not exist" (Ayer ed., 1978:65). In the same vein, Carnap gave instances of metaphysically meaningless expressions for which no empirical criterion can be given. These are "the idea", "the being of being", "non-infinite", "nothingness", "the cause of the word", "thing-in-itself", "absolute spirit", "objective spirit", "essence", "being-in-itself", "being-in-and-for-itself" "emanation", "manifestation", "articulation", "the Ego", "the non-Ego" and so on. By drawing an analysis, Carnap submits that "meaningful metaphysical statements are impossible. This follows from the task which metaphysics sets itself: to discover and formulate a kind of knowledge, which is not accessible to empirical science" (Ayer ed., 1978:76). At best, they contain ideas that are in part poetic and in part religious. In Carnap's words "metaphysics is the inadequate means for the expression of the basic attitudes … towards life" (Ayer ed., 1978:79); yet they do not have the capacity to do so in an adequate way through the creation of works of art. He argues that "metaphysicians are musicians without musical ability" (Ayer ed., 1978:80) who "… have a strong inclination to work within the medium of the theoretical to connect concepts and thoughts" (Ayer ed., 1978:80). In doing this, they thus make use of the language of science in which they express inadequately their experience of the world (by producing a structure which achieves nothing for knowledge) as compared to the works of art and 'the attitude towards life'. On this ground, Carnap vehemently expresses the Logical Positivists' view this way:

> Metaphysical propositions are neither true nor false because they assert nothing, they contain neither knowledge nor error, they lie completely outside the field of knowledge, of theory, outside the discussion of truth or falsehood. But they are, like laughing, lyrics and music expressive. They express not so much temporary feelings as permanent emotional or volitional disposition … The danger lies in the deceptive character of metaphysics, it gives the illusion of knowledge without actually giving any knowledge. This is the reason why we reject it (1935:19).

Admittedly, the Positivists agree with Kant on the rejection of metaphysics as a science. Both accept the contention that the scientific status of metaphysics is not attainable because the statements made by the metaphysicians are not 'testable' by any experience. Yet, there is a decisive difference between them. For the Logical Positivists, metaphysical statements as 'a matter of logic' are literally insignificant. They simply do not pass the test of verification and as such they are meaningless or non-sensical. For Kant, metaphysical assertions as 'a matter of fact' lacked epistemological credentials in not being empirically verifiable. His argument is that though we have no right to assume the existence of metaphysical objects (as noumena or things in themselves) because they are not objects of possible experience, we equally, unlike the Logical Positivists, have no right to deny them. For Kant, the problem of metaphysics is the natural and unavoidable disposition in man to transcend the spheres of the phenomenon world to the things in themselves as noumena which are not objects of knowledge. In this way, Kant's philosophy stood at the dividing line between two worlds. His attempt to save metaphysics in the (i) limited sense of a system of metaphysical (synthetic *a priori*) propositions or foundation of the empirical sciences which he termed the principles of pure natural science and (ii) the human mind's natural disposition to it were completely rejected by the Positivists who had no problem in limiting knowledge to the 'given'. It is however worth reminding ourselves here that this view of the Logical Positivists had its origin in Kant.

Science and non-science

The distinction between science and non-science represents the third major influence of Kant on the Verificationists. In our analysis of the critical philosophy, we have seen how Kant argued that an objective science of nature is possible only within the realms of our experience. In Kant's articulation, our knowledge of the objective world is a joint product of the rational or conceptual through the forms of sensibility.This means that every object of knowledge is subject to the forms of space and time and must have a sensuous content that is determinable by the concepts or categories of the mind. On the contrary, when we try in the same way to know the ultimate reality as if they are objects of experience, we become involved in the dialectic of pure reason (i.e. the paralogisms, the antinomies and the ideals of reason in the defence of God's existence) which are illusions, taking the transcendental ideas as things in the themselves. Kant is convinced that we can only grasp the ultimate nature of things through ethics and aesthetics (that is our experiences of moral obligation, the beautiful and purposefulness of nature). He is determined to defend the integrity of science and moral experience and hence the distinction between science (facts) and values (ethics, aesthetics and religion). Kant's earlier consideration shows that there are transcendental objects whose concepts as he says cannot be produced by our experience. They are distinct from phenomena (appearances) whose existence constitutes our experiences of objects. He tells us that even if we cannot know the noumena as they are in themselves, we can at least believe through the use of practical reason the necessity and reality of freedom, the immortality of the soul and the existence of God as products of pure reason that are useful for the moral life of man and society. His denial of knowledge in order to make room for faith in his system further reinforces this fact. Some scholars however think that Kant would have expressed his mind in a better way if he had said that he was limiting scientific knowledge so as to carve a place for the appreciation of values (Jones 1952:68, Lawhead 2002:345).

In Kantian terms, the same can be said of the Logical Positivist model of scientific knowledge. They acknowledge Kant's claims that there is no knowledge without the mental activity of the subject (the knower) to form concepts of our experience of the world. Both Kant and the Positivists agree that in asking questions about the real nature of things, science is not able to tell us anything about the nature of reality but proceeds to limit knowledge to the phenomenal world of our experience. In Kant, however, there is the realisation that the active constructive powers of the mind, as a set of cognitive activities governed by concepts or rules of the understanding which are logically presupposed by any experience in the act of making judgements about phenomenal objects external to it, has an essential role in shaping the content of our knowledge and the meaning of the world. The Positivist doctrine of concept formation on the contrary exhibits a reversal of Kant's epistemological revolution comparable to the famous Copernican turn such that we begin to have the idea of a world that conforms to the nature of our concepts. For them, concepts are the original atomic sense data (copies, 'images', 'sensations', 'impressions' or abstractions) of objects perceived through the senses and passively interpreted by the mind. They are the mental representations or 'possessions' of the individuals which correspond or conform to something in our experience of the external world. Given the Positivists' interpretation of the world, the crucial question becomes "how it is possible for example to show … that one's person's experience is identical with another's … an experience based science is fundamentally subjective; science is verified only at the cost of losing its objectivity" (Edward ed., 1967:55). This is clearly because two individuals can disagree on the colour of a thing due to differences in their physiological and psychological disposition and the relative position of the object of experience. Kant, however parts ways with the Positivists in this regard. His emphasis on the *a priori* categories of the human understanding as the universal, necessary conditions of knowledge seems to provide a resolution of the question of objectivity in science.

A further consequence of the verifiability principle for the Logical Positivists is that ethics, aesthetics, religion, etc. are not scientifically defensible. For them, assertions about values fall within the realm of metaphysics and were therefore regarded as meaningless. Ayer and Carnap argue that ethical assertions based on the principle of verification lacked factual content. They are not assertions at all. "The existence of ethical and aesthetics as branches of speculative knowledge presents an insuperable objection to our radical empiricist thesis" (Ayer, 1952:102). Values and morality are without reality and meaning. To make a judgement of ethical values about 'the wrongness of stealing' for example is not, they suggest, to convey empirical information about stealing which can be either true or false, but that such judgement expresses our feeling of disapproval. Ayer argues:

> If I say to someone, 'You acted wrongly in stealing that money' I am not stating anything more than if I had simply said, 'You stole that money'. In adding that this action is wrong, I am not making any further statement about it. I am simply evincing my moral disapproval of it. It is as if I had said 'you stole that money' in a peculiar tone of horror, or written it with the addition of some special exclamation marks. The tone or the exclamation marks, adds nothing to the literal meaning of the sentence. It merely serves to show that the expression of it is attended by certain feeling (of moral disapproval) in the speaker (1952:107).

In this particular example, there is an attempt to dissuade others from stealing. The disposition is to evoke an emotional reaction. Thus, Ayer contends that "in every case in which one would commonly be said to be making an ethical judgement, the function of the relevant ethical word is purely 'emotive'. It is used to express feeling about certain objects, but not to make any assertion about them" (Ayer, 1952:108).

Similarly, Ayer tells us that "aesthetic words such as 'beautiful' and 'hideous' are employed … not to make statements of fact, but simply to express certain feelings and evoke a certain response" (1952:113). Like ethics, aesthetic judgements according to the Positivists have no 'objective validity'. They do not say that a particular aesthetic object has value.What they communicate is that the person who makes the judgement has certain feelings (emotions). In distinguishing the Positivist moral concepts from that of the Kantian project, Ayer concludes that:

> Any attempt to make our use of ethical and aesthetic concepts the basis of metaphysical theory concerning the existence of a world of values, as distinct from the world of facts, involves a false analysis of these concepts. Our own analysis has shown that the phenomena of moral experience cannot fairly be used to support any rationalist or metaphysical doctrine whatsoever. In particular, they cannot as Kant hoped be used to establish the existence of a transcendent god (1952:114).

In the same way, the Positivists reject religious truths on the grounds that the propositions which the theists use to communicate such 'truths' are not testable by any experience. 'If God is a metaphysical term,' says Ayer, 'then he belongs to a reality which transcends the world of sense experience.' Such terms cannot be true or false. They come under the blanket rejection of metaphysical assertions.

From the foregoing, it is clear that the Logical Positivists stress or derive the need for a clear or complete distinction between science (facts) and non-science (religious and moral values) as two distinct fields of inquiry.

> There is (according to the Positivists) no logical ground for antagonism between religion and … science. As far as the question of truth or falsehood is concerned, there is no opposition between the … scientist and the theist who believes in a transcendent god ... since the religious utterances of the theist are not genuine propositions of science. Such antagonism as there is between religion and science appears to consist in the fact that science takes away one of the motives which make men religious. For it is acknowledge that one of the ultimate sources of religious feeling lies in the inability of men to determine their own destiny and science tends to destroy the feeling of awe with which men regard an alien world, by making them believe that they can understand and anticipate the course of natural phenomena and even to some extent control it (Ayer, 1952:117).

The resolution of the glaring distinction by the Positivists between science and non-science in conformity with the Kantian paradigm rules out the possibility of any conflict between them. Both schools of thought believe intensely in the separate spheres of these disciplines and the tireless concern to preserve their independence, characteristics and functions which stem from their objects of knowledge constitute and pervade Kant and the Positivists' system. For them, the object of scientific knowledge is on the perceptible, physical world of concrete existence while religious beliefs are about our moral life which relates us to a transcendental God. For the Positivists such a Kantian belief in God is totally meaningless.

Conclusion

Our examination of the critical philosophy has shown Kant as the last modern practitioner of foundationalist epistemology in the Cartesian tradition – a tradition which he recognised and at the same time rejected – saw the major problem of the history of knowledge as one of providing a metaphysical account of the way in which the subjective contents of individual minds come to have indubitable objective reference. He is also the inaugurator of a very different approach to epistemology – one that sees methodology or rules of cognitive procedure as fundamental in determining the objectivity of knowledge. While the standard view shows no relationship between Kant's system and the Positivists of the Vienna Circle, a careful study has shown that the same claim can no longer be made about them. In fact, the Positivists' general characteristic was the replacement of previous philosophical speculation with the scientific ways of thinking that guarantee the role of reason and the constraints of experience as Kant did. As was to be expected, this work has established that Kant's ideas fitted well (though with some disagreements) into the debate of the latter as evident in the epistemological and semantic context. The fact of Kant's influence on the thoughts of the Positivists is uncontested. He has more in common with late twentieth century philosophers than with his traditionalist eighteenth century predecessors. The Logical Atomism of Bertrand Russell, the 'Vienna Circle' Logical Positivism, Williard Van Quine and Ordinary Language Philosophy for example could be viewed as extensions of Kant's criticisms of dogmatic metaphysics.

In locating the nature of Kant's influence specifically on the Logical Positivists, we have seen that they derived valuable and legitimate reference to Kant in their philosophical debate. These include the clear cut distinction between analytic

and synthetic statements and by implication the recognition of the rational (the purely conceptual) and the empirical (the existential) elements in creating the objects of knowledge. The others being the verification criterion which saw all forms of metaphysics as falling into the realm of nonsense because it could not be reconstructed on a strictly empirical basis and the subsequent division between science and non-science. A dominant theme of the entire work is the demonstration *a la* Kant that for anything to be objectively valid in the epistemic sense, it must have a corresponding reference in the world of experience. Even the Positivists accept this. The failure to see this connection often hidden in the background has resulted in the failure to appreciate the importance of Kant's doctrine for the Verificationists. Graham Bird acknowledges the relevance of Kant within the context of twentieth century philosophy when he says "… though any current lessons from Kant may seem relatively inexplicitly …, still the influence of Kant's philosophy is considerable and undisputed" (1962:127). His general mode of thought and contributions to subsequent philosophical thinking has been immense, such that his work in anticipating the ideas of the Verificationists, particularly in the areas which we have delineated, cannot be easily underestimated.

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Ideational representation of prostitution and social meaning in Chika Unigwe's *On Black Sisters' Street*

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Abstract

Previous studies on Chika Unigwe's On Black Sisters' Street *(OBSS henceforth) have focused mainly on the thematic concerns of the text – prostitution, sex trafficking and sex slavery, without paying considerable attention to the role of language in the projection of the phenomena. This study critically examines ideation as a linguistic tool for inferring or retrieving the social meanings encoded in the text under study. This study also explores how the resources of language can be used in establishing social and power relations in discourse encounters and how their manifestation in literary discourse represents social experiences in real life situations. Working within the tenets of M.A.K. Halliday's Systemic Functional Linguistics (SFL), this study engages in the project of using insights from critical discourse analysis (CDA) and sociolinguistics to ascertain the mental and physical state of the victims of sex slavery, the attitude of their clients, and that of other powerful social actors that inhabit the creative universe of the text under consideration. The significance of this study lies in its demonstration of how the writer's linguistic choices bring about an understanding of the social experiences and ideology that underlie the text under study*

Keywords: prostitution, sex trafficking, sex slavery, Nigeria, Chika Unigwe

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Introduction

Prostitution as an integral aspect of urban life has received the attention of many Nigerian and other African writers. Nigeria's Cyprian Ekwensi, popularly regarded as the patriarch of African urban literature, was the first to depict prostitution as an integral component of social life in the city. Charles Nnolim identifies money, sex and power as the compelling principles in the lives of the urban characters in Ekwensi's fiction. This explains why Nnolim (2009:92) describes Ekwensi as "Nigeria's novelist of the city". Ekwensi's *Jagua Nana* (1961) was so critically received by the Nigerian readership that its moral content had to be debated on the floor of the Nigerian parliament on the grounds that it tended to promote immorality. The neo-Platonists in the parliament argued that sex (a tabooed locution in African tradition) and sexual images were brazenly employed in the text by the writer. This, they contended, was capable of injuring public morality.

Ekwensi in his texts on prostitution tries to portray the profession as a debased, dehumanising and hazardous art (occupation), which unfortunately has been essentially sustained under different guises by some depraved but highly placed individuals in society. Some of the prostitutes in *Jagua Nana* like Jagua and Mama Nancy are economically independent women who have sufficient wealth and social connections to contemplate sending their younger boyfriends overseas for further studies. This implies that some of the prostitutes of the twentieth century were, to a large extent, economically independent. This, however, is not the case with the twenty-first century prostitutes we encounter in the works of Chika Unigwe and Ifeanyi Ajaegbo. The young women are mere bonded sex machines who must first satisfy the economic interests of their masters and mistresses before they can obtain their freedom and independence. Many suffer varying degrees of deprivation and losses in the process of working for their freedom and self-actualisation. The construction of prostitution by some twenty-first century writers such as Amma Darko, Unigwe and Ajaegbo is therefore not a mere intertextual extension of the discourse as established in the works of writers like Ekwensi, Ngugi wa Thiong'o, Meja Nwangi, Chinua Achebe, and several others. It is a shocking revelation of how brutally exploitative and internationalised the trade has become in the present century.

Previous studies on Unigwe's *On Black Sisters' Street* have focused mainly on the theme of prostitution without exploring the ideological motivations for the thoughts and actions of discourse participants. Thematic studies are associated chiefly with literary criticism. This study differs significantly from traditional literary criticism by drawing strongly from the linguistic resources of CDA and SFL in the investigation of ideation and tenor in the text under consideration. The study aims at revealing the socio-psychological experiences of the discourse participants involved in

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trans-continental prostitution and sex slavery, and the role of language in framing such experiences. The linguistic and cognitive resources deployed by the writer enable the reader to perceive the inhuman and degrading conditions of victims of the trade and the ideological motivations of the powerful social forces behind the business. The language of the powerful social actors and that of their victims show that sexual exploitation, as a social activity, is a form of dominance. It is a form of dominance because it involves participants who share unequal power relations in which one group maintains a hegemonic control over the other and justifies acts of deprivation and violence against members of the subordinated group. Discourse situations reveal how powerful social actors use language to deceive, seduce, cajole, coerce, threaten and manipulate the weak and the vulnerable in the process of legitimation. In the end victims are delegitimised and stripped of their basic humanity and identity. The ideology that underlies the text under consideration enables the reader to infer the asymmetrical power relations between the dichotomous groups involved in social interaction as well as the tacit endorsement of sex slavery and exploitation by agencies of the law. Chinyere Nwahunanya observes that prostitution thrives because of the institutional support it receives from agencies of the state. He notes that some countries "see prostitution as a source of income to government coffers, since a number of tourists may find the availability of youthful prostitutes a good reason to travel to those countries where prostitutes operate without legal restrictions" (Nwahunanya 2011: 349). Consequently, a country like South Africa, according to Nwahunanya (2011:348), "is about to introduce a legislation that legitimises prostitution. It is expected that this would give a wider operational space for prostitutes and their clients."

The text under study shows that a cabal of power is behind prostitution and sex trafficking as a lucrative domestic and international business. This study, therefore, undertakes to unearth how the resources of language in a literary discourse enhance our understanding of how individuals and groups establish or negotiate their identities, legitimise their actions, enact their social experiences, and establish intergroup and interpersonal relationships. Language has always been the medium through which thoughts, feelings, ideologies, and other human experiences are expressed. Language is considered the most viable means of communication; whether spoken, written or gesticulated. It is through the resources of language that individual and group identities and ideologies are construed and expressed. Writers exploit this fascinating nature of language to relate social experiences to their readers through conscious choices made from available linguistic features at every level of language structure. The distinctive way a writer conveys a message constitutes that writer's style. It is therefore through the instrumentality of language that we see a writer's ability to conjure pictures and sounds, and imply meaning in the world of his or her text.

The notion of ideation as a linguistic term emanates from the tenets of systemic functional linguistics (SFL) of M.A.K Halliday. The ideational function of language expresses the content or speaker's experience of the real world, including the inner world of his or her own consciousness. The ideational function or metafunction is sub-divided into two: the experiential (an expression of the user's experience of his/her real world) and the logical (an expression of the language user's experience of the internal world of his/her own consciousness). Ideational metafunction is about the natural world in its broadest sense. It is concerned with "ideation", the resources for construing our experiences of the world around us and inside us. This involves the use of language to represent things, ideas and relations or states of affairs. According to John Haynes (1992: 23), "It is this function which allows us to label things in a situation, to indicate categories and connections among them, and to show more abstract relations such as negation and causation." Language enables its users to express their knowledge of their cultural and social world, including the inner world of their own consciousness. Stefan Sonderling (2009: 86) argues that "our knowledge and experience of the world are words and meanings mediated by language. The way we organise and articulate our experience is an interpretive process that takes place mainly in, and through, language."

The functional view of language perceives language as a social resource that enables its users to express ideational meanings, interpersonal meanings, and textual meanings in social and cultural contexts. Suzanne Eggins (2004:11) contends that the fundamental purpose that language has evolved is to enable us to make meanings with each other. In other words, language users do not interact in order to exchange sounds with each other, nor even to exchange words or sentences. People interact in order to make sense of the world and each other. The overall purpose of language, then, can be described as a semantic one, and each text we participate in is a record of the meanings that have been made in a particular context.

The above reinforces the communication of meaning as an essential component of human interactions. SFL takes a sociological view of language and argues that every text, whether structurally complete, grammatically correct or otherwise must make meaning in context. Ideational meanings are about how we represent experience in language. According to Eggins (2004:12), "whatever use we put language to, we are always talking about something or someone doing something." Interpersonal meanings are meanings about our role relationship with other people and our attitudes to each other. Similarly, whatever use we put language to we are always expressing an attitude and taking up a role.

Textual meanings are meanings about how what we're saying hangs together and relates to what was said before and to the context around us; hence, whatever use we put language to we are always organising our information (Eggins 2004:12). Again, the study of ideation as part of a writer's style is essentially aimed at unearthing the writer's ideology and the social meanings so carefully embedded in the work through the instrumentality of language. In other words, we are considering that very distinct manner in which a writer expresses his or her ideas about subject matter in the world of his or her text. Through the interconnectedness between language and art, a writer is able to communicate to us the flux of goings-on in his or her society, proving succinctly that meaning does not reside in linguistic codes alone, but also in the context wherein said codes are used. One understands this by looking at the text from the angle through which a story is presented or told, the socio-political motivations of the story, the identity of the narrator, the cultural and historical contexts of the narrative, and so on. We can infer the ideational meaning of a text by considering the identities of the participants in a discourse event, their relationships with one another, the background knowledge we have about our social world and the world of the narrative, and the context within which the discourse event takes place.

Ideational representations in OBSS

Ideation is concerned with the resources for construing our experiences of the world within and around us, which involves the use of language to represent things, ideas, and relations or states of being. Halliday however says that ideational meaning does not work in isolation; it also involves the construction of interpersonal and textual meanings. To Eggins (2004:12), "These three types of meaning are expressed through language because these are the strands of meaning we need to make in order to make sense of each other and the world." At the level of lexico-grammar, ideational meanings are expressed in transitivity – the grammatical resource for construing our experiences. A few examples of how Unigwe constructs the social experiences of some of the discourse participants are examined below:

> Ama, Joyce and Efe – were at that very moment preparing for work, rushing in and out of the bathroom, swelling its walls with their expectations: that tonight they would do well; that the men would come in droves; that they would not be too demanding. And more than that, that they would be generous ... There was time before they had to leave, but they liked to get ready early. Some things could not be rushed. Looking good was one of them. They did not want to turn up at work looking half asleep and with half of their gear forgotten at the house (Unigwe 2009: 3-4).

This text helps readers understand the nature of the trade and the extent to which the prostitutes have to prepare for the day's "work". The use of relational processes (were and was) is to clearly depict a state of being – in this case, the act of prostitution. In the competitive world of prostitution, one has to constantly repackage and rebrand yourself outstandingly in order to attract customers. Material processes such as "rushing" and "swelling" underlie the seriousness with which the discourse participants take the trade. The linguistic representation of actions with the material processes performs the semantic role of enabling the reader to perceive the women as doing what is needed in that circumstance to survive against all odds. This makes an appeal to the sentiment of the reader. The word "expectations" underscores the mental state of the women as they prepare for the day's work. Also worthy of note is the euphemisation of prostitution, an undignified profession, as "work." The expression presents prostitution, an ignominious act, as something noble. The ideology that underlies its use in the text is to show that both the women and their sponsors no longer see prostitution as something evil, sinful, and despicable, hence the women have to "rush", "swelling the walls with their expectations." The entire description also leads us to infer some of the negative social experiences the women encounter in the course of doing the job. Such negative experiences include nights when men are less generous, or do not come in droves, and nights that men make serious and sometimes inhuman demands on them. Thus, tonight, the girls' mental being orients towards having a better outing.

> Ama thought he was a ghost and would have screamed if he had not pre-empted her by covering her mouth with one broad palm and smothering the scream in her throat. With the other hand he fumbled under her nightdress, a cotton lavender gown with a print of a huge grinning bear ... The walls could sketch her stories. They could tell of how she wished she could melt into the bed. Become one with it. She would hold her body stiff; muscles tense as if that would make her wish come true. When she did this her father would demand, 'What's the fifth commandment?' (Unigwe 2009: 131-2).

The use of mental processes like "thought" and "wish" and material processes like "covering", "smothering" and "fumbled" in the text above delivered by the narrator depicts the victim's physical and mental ordeal in the hands of a man she calls *father*. The psychological damage she sustains in this awful encounter informs her passive attitude to everyone and everything around her in her adult life. The encounter also distorts her emotional stability, particularly to men, even as a prostitute. The intertextual reference to the fifth commandment by Brother Cyril while in the very act of raping Ama does not just show profanation of the highest order but also shows a case of double standards and hypocrisy

on his part as a self-acclaimed child of God. The material processes ("covering", "smothering" and "fumbling") reveal the processes of an illegitimate act – rape initiated by Brother Cyril, the victim's foster father, while the mental and relational processes show the victim's physical and emotional being. In all, the author uses the victim's mental and psychological state to index rape as an act of violence against innocent and vulnerable victims. The processes show that rape is a physical and psychological violence against women and children. In the text below, one of the women uses relational processes to assert their humanity and challenge the oppressive social actors responsible for their inhuman conditions.

> We're human beings! Why should we take it? Sisi is dead and all Madam can think of is business. Doesn't Sisi deserve respect from her? What are we doing? Why should she treat us any how and we just take it like dogs? (Unigwe 2009: 289).

The text above is a discourse of resistance against an oppressive social order. Joyce, one of the prostitutes, uses a chain of interrogates to challenge the hegemony and insensitivity of their matron prostitute and oppressor (known in the text as Madam) by using relational processes like **are** and **is** to affirm their humanity in spite of their dehumanised social conditions. Her use of the processes to reflect her emotional state reveals how depressed she is as a result of Madam's obvious insensitivity to her slavish conditions. Even though she is unable to initiate any physical revolt against Madam her questions indicate a conscious recognition of her social condition and that of the other women in the hands of a cabal of power that dominates, exploits and dehumanises them.

Syntactic codification of social experience

Sentence structures can be used by writers to reveal social situations such as confusion, fragmentation, turmoil, and meaninglessness in the world of the text as well as in the real world. Unigwe uses the structure of some sentences to portray the state of mind of discourse participants, their experiences, and their social conditions as can be seen in the texts below.

> Yes. Yes. You Africans are soooooo good at this. Don't stop. Don't stop. Please. You. Are. Killing. Me. Mmmmm. Mooi! (Unigwe 2009: 36)

The syntax or structure of the above text is used to encode experiential meaning, which is that of pure ecstasy and mental disorientation. It reveals the state of mind of the speaker in a sexual encounter with one of the African prostitutes. His use of one-word sentences and fragmented structures depict the level of confusion and disorientation the speaker feels at the time. The disjointed utterance is further used to represent the moral and social disorderliness in the society where this act takes place. The speaker's use of an imperative expression – "don't stop" is mitigated by the use of "please", an article of politeness to encourage his partner to sustain the tempo. Psychologically, it shows the enormous influence of sex on the human mind. The speaker uses pronoun of exclusion "you", as in "You Africans" as a racial identity marker to show that he is non-African and also to underscore the assumption or claim that some races are better sexually than others. Here, the speaker rates African women (or prostitutes) very highly. Unigwe apparently feels that syntactic disorientation or distortion is the best form to capture the speaker's state of mind at the peak of sexual ecstasy and experience. Unigwe also uses syntactic fragmentation to depict the psychological state of Ama in the text below:

> Ama hissed, turned and walked out.
> What did he take her for? She wanted a better life but not that badly.
> But.
> Wait.
> Maybe.
> What if?
> So?
> At night, when she tried to sleep, mosquitoes buzzed in her ear and kept her awake, and being unable to sleep, she thought. But. Wait. Maybe. What if? So? And one night she thought and then she laughed. Maybe she was going crazy. (Unigwe 2009:166)

The structural arrangement of the text above shows the mental anguish and confusion this character is passing through. Unigwe uses the syntactic patterning of the text to convey the mental and emotional state of the character whose mind is being mirrored. The graphological design of 'But. Wait. Maybe. What if? So?' in both the vertical and horizontal dimensions, shows the several ways this character has considered the issue under engagement and her inability to wriggle out of her confusion and social condition as a victim of sex slavery. The vertical dimension or paradigmatic (angle of selection) form of the words represents a conscious choice of words made from several alternative words available to the speaker. The paradigmatic angle of language permits the language user to make lexical choices from so many other words that are open to selection. The vertical structure of the words appears meaningless in isolation but stylistically appealing. It is essentially intended to draw attention to Ama's state of mind. The horizontal or syntagmatic (angle of combination)

form of the words would have gone unnoticed but for its fragmentation. Unigwe uses the syntactic arrangement of the text to foreground the social experiences of the discourse participant. Also significant in the understanding of the speaker's mental and psychological being is the use of rhetorical questions by the speaker. The questions, "what if" and "so", appear meaningless in the discourse context and give the impression that actually "she was going crazy." The ideology that underlies the entire text gives the impression that her dehumanising conditions in Europe are beginning to consume her psychologically.

Again, the dominant use of one-word or two-word sentences shows the mental orientation of the character and her inability to articulate her thoughts coherently. The author uses Sisi to depict the mental and emotional disorientation of other victims of the trade. In the text below, Sisi expresses her state of mind and condition thus:

> Could I?
>
> Should I?
>
> *Would I?* (Unigwe 2009: 277)

The structural arrangement of the three items above indicates the speaker's psychological state. A horizontal or vertical arrangement of texts in context represents the writer/speaker's flow of thought at the moment. It helps the reader/listener to situate the mental and psychological orientation and disposition of the individual. In the text under consideration, Sisi chooses to situate each word on a separate line as a way of making them stand out or be prominent. Besides placing each word on a separate line, the words are italicised as way of foregrounding them. The stylistic design of placing each word on a separate line and italicising it is intended to attract the attention of the reader and to depict the state of mind of the speaker. In a related event, the narrator reports Ama's thoughts in fragmented syntactic structures thus:

> Ama remembered that Mama Eko complained about Enugu. She said it was too small. Too dead. Too quiet. She said, people here walk as if they're on their way to their graves. (Unigwe 2009: 151).

The syntactic pattern of this excerpt shows dislocation in thought which reflects the speaker's mental or psychological state. The fragmented structure shows her attitude towards Lagos in contrast to Enugu. It also reveals her attitude towards both cities. Enugu is the carrier of the negative attributions "too small", "too dead" and "too quiet" which implicitly contrasts with Lagos. Mama Eko obviously chooses to present Lagos more positively so as to convince Ama to leave Enugu, a city presented as the land of the living-dead. The expression perhaps influences Ama's later decision to travel to Belgium to have a better life.

Enactment of interpersonal meanings

Interpersonal meaning refers to tenor and the social distance between participants in a discourse event. Tenor comprises three components – the speaker/writer, the social distance between the participants, and their relative social status. Social distance tells how close the speakers are while relative social status asks whether they are equal in terms of power and knowledge about a subject. In linguistics, a speaker's role in a discourse event could range from making an assertion, giving orders, demanding goods and services, asking questions, expressing happiness, doubt and fear. The focus here is on speech acts and roles – who chooses the topic of discussion, turn management, and how capable both speakers are at evaluating the subject. The grammatical resource for the expression of interpersonal meanings is known as MOOD. The mood system enables the language user to make choices from a range of options such as declaratives, imperatives, interrogatives, all of which are employed to show power relations in speech encounters.

The use of declaratives

Declaratives are used by speakers to state facts, or their biases, thoughts and feelings towards someone or something. Rhetorically, they are not used to conceal ideas. Their rhetorical force lies in presenting facts convincingly and in a forceful manner. Whether used to reveal or conceal meaning, declaratives are carriers of ideology in discourse. The declaratives in the texts show varying degrees of bias, ideology and opinion. The following from the text under consideration are used to show power relations and social distance between discourse participants:

> "Useless girl. *Ashawo*. May a thousand fleas invade your pubic hair. Useless goat. Shameless whore, *ashawo*." (Unigwe 2009:70).

The text shows the asymmetrical power relations between the speaker and the addressee. Besides being impolite, the speaker's statement also threatens the autonomous face-wants of the other. Negative expressions such as "useless girl", "ashawo" (prostitute), "useless goat" "shameless whore" and so on used by the speaker is to enable her represent the other as being thoroughly evil. The speaker wants her audience to perceive the other as wayward, indecent and thoroughly bad. The speaker's outrage and anger at the situation is shown in her use of one and two-word sentences to

confront the other and to demonise her. She draws out her statements in such a way that one sees the underlying anger and the social distance between both participants.

> "I am not your father, you stupid lying girl ... I want you out ... As God is my witness, you shall leave my house today!" (Unigwe 2009: 148-9).

In the excerpt above the speaker explicitly denies his fatherhood of the addressee after she accuses him of rape. The speaker (Brother Cyril) labels the other (Ama – a rape victim of Brother Cyril) a liar the moment she resists his verbal assault by telling her mother that he had been raping her. It is convenient for him to do this because he realises the powerlessness of the victim and her mother. His denial of the act and intimidation of the victim are presented in a style that makes appeals to the reader's emotions.

> "*Umu nwoke bu nkita*. Dogs! That's what men are! ... Men cannot keep those things between their legs still. And it is men from homes who do this" (Unigwe 2009: 139).

In the third example, the speaker is certain about the fact that men are generally flirtatious. She metaphorically frames men as dogs (*nkita*), because, in her estimation of the opposite sex, they lack self-restraint, sexually. The sweeping generalisation made by the speaker is ideologically motivated in that the female speaker's intention is to present men in the negative by metaphorising them as dogs.

> "Stupid African Slave!" (Unigwe 2009: 190).

The speaker in the excerpt above asserts the ideology of racial superiority. The text implicitly reveals the speaker is not of African descent and thus perceives his origin to be superior to that of the other who is the carrier of the attribution "slave." Being a slave implies that the addressee (Alek) cannot be treated with full human dignity. The speaker (a member of the *Janjaweed* militia group in Sudan) in the discourse reveals the age-long hatred the Arabs have for black Africans. The declarative shows the *Janjaweed* militia wield enormous social and political power, so much so that they could execute both physical and verbal assaults on other groups as a form of self-legitimation and dominance.

The use of interrogatives

This is another grammatical resource that reveals interpersonal relations in communication encounters. It shows the power relations that exist between participants in a speech event, their identity as well as their ideology. This can be found in the following examples:

> Just take a look at yourself. Small girl like you, what were you doing with a man? At your age what were you doing spreading your legs for a man, eh? Which girl from a good home goes around sleeping with a man who is old enough to be her father, eh? Answer me, you useless idiot. I see you can't talk any more. You have gone dumb, *abi*? And you have the cheek to show your face. You were not afraid to come into my home with that *thing* in your hands, eh? You were not scared to ring my doorbell and show your face, eh? (Unigwe 2009: 70).
>
> What did he look like? Where was he? What was his name? How tall was he? What was his name? How short? Did he have a beard? A moustache? Did she have another family? Brothers? Sisters? What did they look like? Did they know about her? (Unigwe 2009:149)

Besides being impolite, the first speaker (Titus's wife) also threatens the autonomous face-wants of the other. She wants her audience to perceive the other as wayward and indecent, while implicitly concealing her husband's direct role in the grand show of shame. Unigwe depicts Titus as a married man who takes pleasure in luring young girls into sex and abandoning them once they become pregnant. His massively built wife throws insults at the victims of her husband's recklessness whenever they show up at his home pregnant or with their babies. We can glean from the text that the rich control discourse and power while the poor remain hopelessly powerless. Knowing full well that the victim is a minor from a less privileged background, the speaker does not criticise her husband's indecency in ruining her (Efe's) life; rather, she takes side with her husband and calls the child a "*thing*". This is what Paul Chilton (2004: 47) refers to as delegitimising the other. Chilton argues that the extreme form of delegitimisation is "to deny the humanness of the other." Titus's wife does not consider Efe's child human since it was born out of wedlock by an indigent under-aged girl. The victim is also denied the opportunity of self-explanation. This shows that interrogatives can be used to underscore social relations, social power and instances of dominance.

The second, Ama's rhetorical questions, reveal her emotional turmoil and confusion about her father's identity. This comes after the only man she had known and called father (Brother Cyril) rapes her, denies the act and eventually warns her never to call him father anymore – "Do not call me that. Do not call me father. I am not your father, you stupid lying girl" (148). The fact that she knows nothing about the identity of her biological father and her mother's conspiratorial silence on the matter are psychologically damning to her. The questions therefore are an elusive search for identity and self-discovery.

The Nigerian pidgin as discourse and identity marker

The Nigerian Pidgin (NP henceforth) is employed in the text under consideration to index the speakers as Nigerians, facilitate communication between discourse participants, and reveal their social class and educational background. Examples include:

> 'Ah, these people just dey disturb me! 'Oga Dele dis', 'Oga Dele dat.' Ah, to be big man no easy at all! ... But I no dey do charity o. So it go cost you. Taty t'ousand euro it go cost you o" (Unigwe 2009: 34).

This excerpt does not only index the speaker (Dele) as a Nigerian of Yoruba ethnic group, it also shows his level of education, social class and moral standing. He is obviously a shrewd businessman who assumes a lot of self-importance for making his fortune from transporting young Nigerian women across Europe for prostitution and sex slavery for a fee of "taty t'ousand euro". His use of language presents him as a pimp or scout of willing young women who would want to make quick money through prostitution. He brags about being disturbed by prospective prostitutes to assist them get across to Europe but affirms he doesn't do such for charity. Unigwe uses him to show that the trade thrives because of scouts like Dele who make their fortune by deceiving innocent young Nigerian and African women.

> "Dat man na only himself he sabi. He no dey talk to anyone. No dey do anything. But him dey do good with hammer. Na him dey fix everytin' around here" (Unigwe 2009: 105).

The example above prefigures the character of Segun, who is being discussed by Efe and Sisi. From the speaker's perspective, Segun is perceived by the women as a self-absorbed taciturn and a jobless fellow. Yet, he is said to handle the hammer with dexterity. Unigwe uses this conversation to foreshadow events that will unfold later in the narrative. Though the women keep wondering what exactly Segun does around the house, they ironically hint at his ability to "fix everytin' around here," which is exactly what he does. By "everytin" the author means inconveniences and odd jobs that include killing the women if they err. He eventually fixes Sisi with the hammer when she tries to assert her freedom from the cabal of power that owns her life in Belgium (293). The use of Nigerian Pidgin in the conversation facilitates communication among speakers who have common social and cultural background.

Code switching, code mixing and identity construction

Code here refers to any language and the system that makes it up, be it French, English, Igbo, Hausa and so on. Code switching refers to that alternate use of two languages in a single discourse event, while code mixing is the simultaneous use of two languages in a sentence, such that one language interpolates at intervals. Code switching and code mixing are not mutually exclusive. They are used in literary discourse to show cultural context, identity, status and ideology. Unigwe code switches and code mixes as a stylistic device as well as a way of situating discourse events within cultural contexts. All the excerpts below indicate the speakers are from Igbo ethnic group in South-eastern Nigeria. Beyond this, their use of Igbo language gives ethnic identity to the discourse participants, enhances understanding and constructs linguistic and social affinity between participants. It also enhances some form of interpersonal relationship between the author and the reader. The writer's choice of language, as Eggins (2004: 11) points out, expresses the writer's role relationship with the reader, and the writer's attitude towards the subject matter. The use of language involves the construction of ideational, interpersonal and textual meanings. The use of one evokes the use of the other. Unigwe also tries to provide the direct English equivalents (or translation) of the expressions in Igbo so as to accommodate non-Igbo readers.

> "She can make even palm fronds tasty. *Eziokwu ka m na-agwa gi*. I'm telling you the truth" (Unigwe 2009:156).

In the text above, Mama Eko uses Igbo language as a way of convincing her listener of the veracity of her claim. The listener can also perceive the elements of hyperbole in the discourse because it is an impossible feat to make palm fronds tasty. However, we can infer from our cultural knowledge that she is trying to communicate the fact that the person in reference is a good cook.

> "Small but mighty. *Obele nsi na-emebiike*. She is the small shit that causes a grown-up to strain and groan" (Unigwe 2009:155).

This second example also leans towards being an exaggeration that has elements of truth in it. It is a proverb in Igbo that literally translates as 'small but mighty.' The speaker therefore means to inform that despite the fact that the subject is short or diminutive, she more than makes up for this with her culinary abilities. The Igbo expression gives more rhetorical force to the statement than its English equivalent.

> "Mother, you have to believe me [...] I'm not lying. He raped me. *Eziokwu*, Papa raped me" (Unigwe 2009:148).

The text above is a desperate plea by the speaker (Ama) to convince her mother to believe the fact that she (Ama) has been raped by her husband (Brother Cyril – Ama's step father). *Eziokwu* is used by Igbo speakers to affirm their sincerity when what is being stated appears doubtful.

> "You crawl around like lizard, *ngwere*, how do you expect to pass JAMB? You think passing JAMB is drinking *akamu*? Get out of my sight, *ka m fu uzo*, let me see road" (Unigwe 2009:147).

This fourth example compares the addressee's sluggishness to that of a lizard (*ngwere*). For the speaker, the addressee makes little or no effort to pass the examination. The addressee is being accused of underestimating the examination which she thinks is as easy as drinking pap (*akamu*). The comparison here appeals to our visual sense of perception and the "*ka m fu uzo*" that follows shows the speaker's indignation at the addressee's behaviour. The Igbo use the expression when they believe the addressee's argument has no merit or the addressee's behaviour appears foolish. It is used to register a speaker's disapproval at something or somebody.

> "*Umu nwoke bu nkita*. Dogs!" (Unigwe 2009: 139).

The example above is a declarative that shows the speaker's disposition towards the opposite sex. Her metaphorical comparison of men to dogs shows that she is not favourably disposed to the opposite sex, especially where issues of sex are concerned. The speaker's claim gives the impression that all men are as shameless as dogs – a position that most men will contest. Igbo women usually use the expression "*Umu nwoke bu nkita"* to support the argument that men have no self-control in matters of sex. It is also to be noted that Unigwe translates only the attribute "*nkita*" (dog) and leaves out the carrier/subject (*Umu nwoke*- men) and the process/verb (*bu* – is) in their Igbo language forms. This gives the impression that her emphasis is on the attribution – the attribute the Igbo culture associates with dog in terms of sex which is being mapped on men.

Intertextuality as a discourse strategy

Unigwe also makes intertextual references to situations in Nigeria to properly situate the novel within Nigeria's socio-cultural milieu. Intertextuality is a discourse process that is associated with the notion of textual re-creation, reiteration and interpretation. Critical studies do not see intertextuality as involving mere textual borrowing or referencing: they look closely at how both texts communicate with each other ideologically. Meriel Bloor and Thomas Bloor (2007:52) contend that "intertextuality involves both the intrusion (or adoption by the speaker/author) of aspects of previous texts into a new text either through citation, attribution or reference, and also the hybridisation of one genre or text type with another." In the text below the speaker makes intertextual reference to a highly critical and satirical song by the popular hip-hop artiste, Eedris Abdulkareen, about the dismal social situation in Nigeria. She refers to the song to justify the argument that the situation in the country is unbearable and therefore justifies the decision of any young woman willing to go to Europe for a better life. As the speaker puts it:

> People knew the risks and people took them because the destination was worth it. What was it the song said? *Nigeria jaga jaga. Everytin' scatter scatter.* Nobody wanted to stay back unless they had pots of money to survive the country (Unigwe 2009: 82).

The reference to the nursery rhyme below also supports the speaker's earlier claim about the level of social anomie and disjuncture in Nigeria. The reference to London is a rhetorical strategy to convince the women that leaving for Europe is a better option than staying back in Nigeria. The narrator informs the reader that the mere mention of Belgium and London sends Rita into a dream world in which 'seeing in her mind's eye two big doors, one beside the other, with Belgium marked on one and London marked on the other' (83) convinces her that the decision to leave Nigeria is a good one. She prefers to be in London where its bridge is said to be falling down than to live in Nigeria where everything is scattered and disorganised (*'jaga jaga'* and *'scatter scatter'*). Thus, the evocation of intertextual resources by Rita after her conversation with Dele shows she is already a victim of mind control. The promises of a better life for the women in Europe are discourses of deceit constructed by the cabal behind sex slavery to mislead the gullible and to sustain the lucrative but inhuman business transaction.

> *London Bridge is falling down*
> Falling down
> Falling down
> London Bridge is falling down
> My fair laaaadddyyyyy
> Pussycat, pussycat, where have you been?
> *I've been to London to visit the queen* (Unigwe 2009: 83).

Conclusion

The social evils of prostitution, sex trafficking and sex slavery have been of great concern to governments, individuals and groups. Literary discourse as a form of representation also draws attention to the same phenomena. Consequently, a linguistic study of ideational meanings in the text under consideration enables the analysts to deduce how the writer's

linguistic choices serve as a means through which social meanings and experiences can be expressed and understood. The significance of this study lies in its demonstration of how the writer's linguistic choices bring about an understanding of the social experiences and ideology that underlie the text under study. Thus, the ideology encoded in the text helps us to discover and understand issues of character depiction, identity, sexual violence and gender roles and asymmetry in Nigeria and Belgium. The use of linguistic resources in the projection of social disjuncture in the text under study is a confirmation of the crucial importance of literary imagination and its linguistic analysis in the project of creating deeper understanding about identity, inter-group relationships and humanistic pursuits of the common good.

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African colonial boundaries and nation-building

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Abstract

This paper is an attempt to examine the consequences of the Berlin Colonial Conference of 1884-1885 as an artificial creation and indicate that this artificatility has created a number of problems that bedevil nation-building in Africa today. The paper has adopted qualitative content analysis of archival material, national dailies and some secondary sources. The first concern is the fact that some of these boundaries cut across pre-existing ethnic groups, states and kingdoms. This has caused widespread social disruption and displacement. Today, some of the Ewe live in Ghana, some in Togo and some in Benin Republic. The Somalia are shared among Ethiopia, Kenya and Somalia. The Senufo are found in Mali, Cote d'Ivoir and Burkina Faso. The examples can be multiplied. The paper highlights the consequences of this situation to include border disputes that have plagued the relationship between some independent African states such as those between Sudan and Uganda, between Somalia and Ethiopia, between Kenya and Somalia, between Ghana and Togo, between Nigeria and Cameroon, in particular over the Bakassi Peninsula. There is also the factor of France's political and economic stranglehold, on her former colonies in particular. The 1961 bilateral agreement between France and her former colonies was to retain close military, economic and cultural ties. The aim of France is to inhibit the growth and stability of the ECOWAS as a sub-regional economic integration. The paper argues that this Francophone dichotomy is a divisive tendency that contributes to territorial disputes, border skirmishes, unguarded border posts and patrols, smugglings, the menace of refugees and illegal aliens on Nigeria. The case of Cameroon is more illustrative than tjat of other Francophone states. It is our findings that because of the artificiality and arbitrary nature of these boundaries, each of the African nation states is made up of people of diverse cultural backgrounds, traditions of origin and languages that pose the problem of nation-building in modern African states.

Keywords: Berlin Colonial conference, artificial creation, widespread social disruption and displacement, border disputes and problem of nation-building

Introduction

In the late 1800s, the industrial nations of Europe competed with one another for world empires. Within a few decades, European powers extended their control over much of the world, in the new age of overseas expansion popularly known as new imperialism. Africa, which had been largely unknown to Europeans, suddenly became the focus of attention.

By 1884, Britain, France, Germany and Belgium were engaged in the struggle for colonies in Africa. The conference started on 15th November, 1884 and ended on 30th January 1885. The European major powers at the conference were Britain, France, Germany, Portugal and Belgium. The aim was to stop the issue from degenerating into open war (Afigbo 1990:129).

One major aspect of Africa's colonial heritage is colonial boundaries. Many colonial boundaries in Africa date back to the Berlin conference of 1884-1885, which climaxed the scramble and partition of the continent. Since that exercise, Africa has known no peace. At independence the confusion was whether to retain or do away with the colonial boundaries. This essay focuses attention on how these colonial boundaries emerged and the consequences on Africa. Our preliminary suggestion has been that the African people through the instrumentality of the African Union (AU) should redo the boundaries wherever there is conflict and allow the sleeping dog to lie where no conflict exists. But no people should be forced to maintain colonial boundaries, if the happiness of being independent must be actualised (Ajala 1969:63).

One of the problems shared by all new nations is that of creating a feeling of national unity among diverse elements, as the parochialism of the constituent segments of the society has been commonly observed in all the nation states of Africa. The paper also focuses attention on the evolution of colonial boundaries in Africa. This exercise has become necessary because of the sporadic boundary disputes that have arisen since the colonial period in Africa. These disputes threaten the unity among African states. The overall effects of this development have been unwarranted and undeserved marginalisation of most ethnic groups. We shall, therefore, examine the meaning of boundary, the pre-colonial position of African boundaries and the emergence of the colonial boundaries. The paper highlights the consequences of this situation

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to include border disputes that have plagued the relationship between some independent African states, such as those between Sudan and Uganda, between Somalia and Ethiopia, between Kenya and Somalia, between Ghana and Togo, between Nigeria and Cameroon in particular and those between other African states in general over the Bakassi Peninsula. There is also the factor of France's political and economic stranglehold on her former colonies in particular. There was the 1961 bilateral agreement between France and her former colonies to retain close military, economic and cultural ties. The aim of France was to inhibit the growth and stability of the ECOWAS as a sub-regional economic integration. It is further argued that this Francophone dichotomy is a divisive tendency that contributes to territorial disputes, border skirmishes, border post problems and patrols, smuggling, the menace of refugees and illegal aliens on Nigeria; the giant of African has borne the giant shoes of the African predicament as a result of the partition (Ajala 1969:64).

A boundary has been described as "the imaginary line which divides two pieces of land from one another such that when these boundaries run between any two or more national states, they are usually defined from point to point in a treaty".[1] The word boundary, therefore, refers to a line. More often than not, it is used with terms like allocation, delimitation and demarcation. In studying the boundary in its territorial context, geographers have identified and applied with precision terms like the border, which represent the adjacent areas which connect the boundary. Similarly, lawyers were able to conceptualise maritime boundaries and maritime jurisdiction. It therefore followed that the territorial rights the sovereign possessed on land extended over the coastal waters. It is therefore literally correct to speak of territorial waters in international law and this extends to the concept of maritime jurisdiction as a doctrine of international law. Beyond the establishment of a legal concept empowering states to exercise jurisdiction over parts of the sea, the questions of how much of the seas and seabeds would be legally appropriated by states and the accuracy in defining the claimed zones as aspects of the maritime boundaries have also drawn our attention over the years. It is sufficient to note that African boundaries of the colonial period as inherited by African states come within our definition of "boundary" above (Ajala 1969:63).

Why boundary disputes occur in Africa

Boundary disagreements occur both locally and internationally between and among communities of the same geopolitical entity as well as at the international level. A boundary dispute arises when one country claims a piece of land in an adjacent country because of some quality that land possesses. That quality could include an important historic or cultural shrine, strategic position or economic resources, such as an oil field or a deep water port. A good example is the current Bakassi Peninsula tension between Nigeria and Cameroon. A dispute may not arise until an actual diplomatic or military conflict occurs.

Disputes exist when two countries hold opposite opinions concerning the status of a boundary or the ownership of an area. For instance, a country can make any claim concerning the ownership of territories outside their boundary but such claims need to be proved before the International Criminal Court (ICC). This is a difficult task because such proof requires detailed historical research to prove the authenticity of such claims. This has happened between Nigeria and Cameroon over the Bakassi Island.

Territorial disputes occur when a country claims an area existing in some other country's territory or when the border is under dispute. This type of dispute exists for historical or cultural reasons. For instance, cultural groups may have occupied an area for a long time and base their claims on this occupation, regardless of which country currently claims the region. For instance the Bakassi Peninsula dispute between Nigeria and Cameroon, which claimed five Nigerian soldiers in 1982, are good examples of territorial disputes.

Rich petroleum reserves or territories that may serve as vital strategic defensive positions may become a matter of national survival for a nation. In this regard, disputes may occur between the countries. Cultural differences although difficult to delineate by boundaries, are often the most compelling sources of dispute for the people involved. Sometimes culturally distinct groups from their own territory may use force if possible to create the separation. What makes the groups culturally distinct can be attributed to a number of factors, but generally they are of ethnic background, religious affiliation, political beliefs and differences.Territorial disputes occur when a country claims an area existing in some other country's territory or when the border is under dispute. This type of dispute exists for historical or cultural reasons.

African pre-colonial boundaries

Until the colonial period, the idea of boundaries as defined above did not exist in Africa. Though there must have existed lines, whether in actual or imaginary sense, separating states, the lines were at that time in the form of zones of varying width. Up to the 19th century, three types of frontier were identifiable in Africa. One of these has been viewed more in terms of enclaves rather than frontiers since they were regions with considerable overlapping of diverse groups. It is

argued that the idea of any type of frontier was inconceivable among some Africans of pre-colonial period and their neighbours. Examples of such groups include the Masai, the Tuareg, the Somali and similar nomadic groups. More clearly, however, there existed what have been described as the "frontier of contact" and the "frontier of separation." The frontier of contact existed in situations where distinct cultural and political groups lived and operated side by side. Some African groups that were well organised and politically active usually had this type of frontier. The Yoruba states and Dahomey (the present day Republic of Benin) in West Africa as well as Buganda and her neighbours in East Africa best illustrate this model of frontier. On the other hand, the frontier of separation is a type of traditional frontier in which communities were separated by a buffer zone over which neither side claimed or exercised any authority. Such frontiers were provided by very thick forests like the Sambisa forest and deserts in Nigeria. The states of Central Sudan including Bornu, Air, Maradi and the Fulani Empire had such frontiers (Ajala 1969:63).

We must take notice that the different types of frontier as described above were not static. Before the imposition of the covalent boundaries arising from the colonial experience, indigenous African frontiers underwent some fluctuations. In the assessment of the discrepancies we must take into account these fluctuations. There were several revolutionary movements and wars of expansion among African peoples during the 19th century, and they all tended to alter traditional frontiers and the indigenous political landscape in Africa. For example, it would be very difficult to pinpoint the indigenous frontier between aggressive Dahomey and Buganda on the one hand and their neighbours on the other at a time when the two kingdoms were perpetually invading their neighbours with the aim to extend their political boundaries, Similarly, revolutionary movements such as the "Mfecane" which spread across most of southern Africa, from Natal to the Central African lakes, and the religious Jihads embarked upon by Fulani clerics in many parts of West Africa, hindered the existence of definite frontiers in some parts of the African continent (Adu 1966:98).

When wars are involved, successful powers usually have clear ideas of territorial arrangements they would demand before victory was achieved, and the defeated states were rarely able to resist most of these territorial adjustments. There was often an overwhelming desire on the part of all parties involved to secure an agreement which would allow the end. It is possible that European colonisation disrupted African boundaries from making relevant impacts on the evolution of boundaries in the continent.

The emergence of colonial boundaries in Africa

Colonial boundaries in Africa date back to the Berlin West African conference of 1884-1885, which invariably climaxed the scramble and partition of the continent. The word 'scramble' is used to qualify the hasty and hectic struggle with which the European powers – Britain, France, Portugal, Spain, Germany, Belgium and Italy – carried out the partition or allocation of various parts of the African continent among themselves. The conference was held in Berlin from November 15 1884 to January 30 1885 under the chairmanship of Otto von Bismarck, the then chancellor of Germany. On February 26, 1885, the Berlin treaty was signed (Reynord 1973:193).

The Act (Treaty) stipulated among other things that any power which wanted to claim any territory should notify the other signatory powers. During and after the conference, the European powers sent out more envoys and soldiers who, by persuasion, force, or bribery, got African rulers to sign agreements, in which they ceded, in some cases innocently, their territories. If the chief would agree to sign the treaty, he would be given such gifts as beads, cloths, or perhaps liquor. Some chiefs were so pleased with the gifts that they readily signed the treaty. Attempts by some of the rulers to resist the ensuing European political encroachment on their territories had come too late and they were practically incapable of matching the European military preparedness to suppress them (Adu 1966:98).

The effects of the Berlin episode

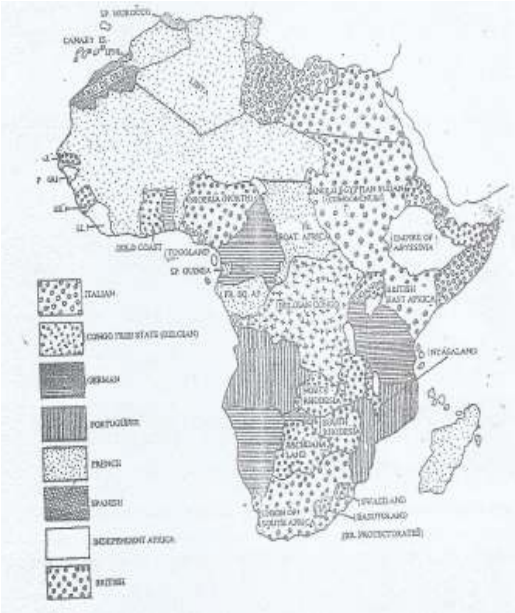
More importantly, the Berlin episode indeed disorganised Africa and terminated the natural evolution of states in the continent. The Berlin conference and subsequent statutes were unilaterally regarded as legal instruments, which empowered the European adventurous powers to divide Africa and make new political boundaries, with artificial lines drawn over territories and common cultures. Each new area was placed under the control and administration of one European power or another, to the extent that it could be rightly claimed that the nature of African boundaries today is a legacy of that conference. It was at that conference that consensus was reached on issues such as "spheres of influence", "hinterland theory", and "effective occupation" of territories by European powers on the African soil. It was the "spheres of influence" that established their potential claims over territories and "effective occupation" gave rise to the making of treaties with African chiefs (Hartmann 1967:72).

Essentially, the various European powers engaged in the boundary negotiation, even as they operated from their state capitals, relied on the so-called treaties, accounts of European travelers, as well as personal reports of local European agents, to carve Africa up among themselves. They resorted to ingenuity whenever and wherever they could not achieve

their aim through that process. In such cases, they would usually take "a blue pencil and a ruler" and began to draw "lines from one point on the map to another" without any consideration for tribal affinity or linguistic or some other such considerations. Reporting on the manner in which the European powers embarked on the delimitation of Africa, Lord Salisbury noted that the Europeans "engaged in drawing lines upon maps where no white man's foot even trod, we have been giving away mountains and rivers and lakes to each other, only hindered by the small impediment that we never knew exactly where the mountains and rivers and lakes were". This perhaps explains why a significant number of the boundaries are straight lines cutting across ethnic groups and overriding the dictates of geography and economy. That was indeed how colonial boundaries emerged in Africa. The boundaries agreed upon by the colonial powers were maintained during the colonial era. Africa was left with no alternative but to accept these inherited boundaries on the attainment of political independence. Today, all this has created problem for nation-building (Coplin 1971:23).

However, since independence, there have been sporadic boundary disputes all over Africa, some with the nostalgia of going back to the pre-colonial boundaries to streamline cultural communities and bridge the arbitrary lines created by the scramble and partition. As a matter of fact, the Berlin conference, despite its significance for the subsequent history of Africa, was essentially a European affair. There was no African representation at the conference. It was directed only to the basic economic, strategic and political interests of the negotiating European powers.

Ethnic groups that were split across borders tended to align in the spirit of irredentism, ignore the boundary lines and to carry on social relations across them more or less as in the days before the partition. Some studies of cross border trade and migrations have been done to demonstrate that such tendencies to ignore the boundaries has often created inter-state problems as confusion is created by the groups across borderlines. Obviously, there is no gainsaying the fact that the intensity of such problems is higher where border groups are traditional war enemies. Sometimes, the border problems are intensified by neocolonial interests of former colonising powers in Africa. This has inhibited nation-building in Africa (Coplin 1971:24). See map below:



Map of Africa showing colonial possession in 1914

Besides these formal boundaries as enumerated above, there are also many informal types that tend to reflect cultural differences, ethnic group distribution or religious influences. In view of the dynamic nature of such boundaries cartographers are unable to collect the precise data required to draw a map for such boundaries. They not only divide a geographic space, but also delineate the behaviour and practices of the people in that space. The Ogaden region is the

traditional home of nomadic peoples ethnically related to Somali tribes, yet it is currently divided between the countries of Ethiopia and Somalia, since colonial international boundaries were drawn without consulting the local people living in such border areas. This gave rise to the splitting of homogeneous ethnic groups, such as the Egun ethnic groups that were split by the international boundary with one part in Nigeria, (English-speaking)and the other in Benin Republic (French-speaking). Other examples include the Hausa-Fulani groups found in Cameroon, Niger, and Nigeria, the Shuwa/Kanuri found in Nigeria, Niger, Cameroon, and the Gude, found in Cameroon and Nigeria. There is cultural interdependence between and among these groups which transcends international boundaries. These culturally linked groups across the international boundaries attend markets, funerals and marriage ceremonies. An interesting aspect is the arrangement of market days within the Egun ethnic society. The market holds for a period of four days at Badagry in Nigeria, at the end of which it rotates to Topa market in Benin Republic, for a subsequent four days in which traders from both countries move with the market. It is even observed that, on these days, market women usually cross the international borders without regard to immigration regulations. However, this goes to explain the careless manner in which the demarcations were hastily carried out without due regard to ethnicity, prevailing social, political and economic situations at that period. Asiwaju has highlighted the traumatic experience of people separated from their kith and kin by international boundaries as he puts it:

> The boundaries have been drawn across well established lines of communication including a document or active sense of community, based on tradition concerning common ancestry, usually very strong kinship ties shared socio-political institutions and economic resources, common custom and practice, and sometimes acceptance of common political control (Asiwaju 1984:25).

The basic objective of diplomacy is to enable people to live with their neighbours, a feat which requires a measure of accommodation to the interests of others. Nigeria had cordial relations with its neighbours – Benin Republic, Niger, Chad, Equatorial Guinea and Cameroon. The guarding principles of Nigeria regional foreign policy since independence had been that of good neighbourliness, friendship, African unity and independence, peaceful settlement of disputes, non-alignment and non-intentional interference in the internal affairs of other nations and regional economic co-operation and development (Panco 1993:82).

Nevertheless, conflict situations, as the antithesis of diplomatic harmony, often arose in time and space. Nigerian neighbouring states had often been hostile and popular passion had become continually more inflamed especially where the object of dispute is boundary problem btween Cameroon and Chad for instance. More to the point is the evidence of the divisive factor of the Anglophone-Francophone dichotomy. Thus, Nigeria is surrounded by Francophone neighbours. European colonialism has a devastating impact on Nigerian neighbouts in particular and Africa in general. The artificial boundaries created by the colonial rulers as they ruled Africa and finally left had the effect of bringing together many different ethnic groups within a nation that did not reflect, nor had (in such a short period of time) the ability to accommodate or provide for the cultural and ethnic diversity.

Nigeria/Cameroon boundary dispute

In the southern sector the areas around the Bakassi and Eniong Peninsula situated on both west and east of the mouth of Rio-del-Rey and Calabar channel at one time or other were being seriously contested by both countries. Attention was first drawn here when between 1966 and 1967 the Late Isaac AdakaBoro used parts of the creeks as his operational base. The recent discovery of oil in the area, and its strategic importance to the countries, has made it an area of high conflict potential. One important observation is that the area was inhabited almost ninety percent by Nigerian fishermen of Efik origin. Prominent among such villages being contested are Abana, Atabong, IneEkoi, IneEdemNtong, IneOdiong, Amamong, ObufaOkobo, Okobodi, Ibekwe, Afaha, Usaha, IneEdet, IneAkwa, IneAttayo, InelnuaAbasi and Inelkang. Today the Bakassi Island has been ceded to Cameroon by the International Criminal Court (IJC) (Panco 1993:83).

Nigeria/Benin

The frontier between the People's Republic of Benin and Nigeria was defined in a series of agreements between France and Britain in the nineteenth century during the partition of Africa. The first major effort at fixing and defining the Nigeria -Benin boundary was undertaken in 1889 when the two colonial powers reached an agreement on the frontier between Lagos and Porto Novo. The final agreement was reached in June 1898. Recently, the government of Benin Republic has invaded about 16 villages in Kwara State of Nigeria and hoisted its flag there (Dede 1981:18).

Nigeria/Niger

The frontier between Nigeria and Niger split the Hausa, the Fulani and other ethnic groups; these people are found in both countries. The major agreement that defined the boundary between Niger and Nigeria was signed in June 1898, the same year as Benin Republic. Niger was tied very closely to France by bilateral agreements which were signed in 1961 to

retain close economic and cultural ties with France. This constitutes a barrier to the development of close economic, political and military ties between Niger and Nigeria. Niger covers a vast area with a landlock stretching from its southern border with Nigeria through the Sahara Desert, and the Chadian border cuts through Lake Chad with no contiguous land mass (Dede 1981:18).

Nigeria/Equatorial Guinea

In the case of Nigeria/Equatorial Guinea relations, the campaign for annexation of Fernando Po began in 1961 and reached its crescendo in 1965 when a series of humiliations were meted to Nigerians. Many people in Nigeria were dissatisfied with the failure of the military government to deal with Fernando Po during the regime of Francisco Macias Nguema (Otite 2007:75).

Problems of border posts and patrols

Nigeria, with a total land and water border of 3 650 kms, faces a major problem of border posts and patrols. Before the colonial powers drew up the existing boundaries, the indigenous populations moved freely, except in areas where such movements were restricted by either environmental barriers or internecine strife. As a matter of fact, all along the present borders, the same 'tribes' or ethnic groups tend to settle on either side of the borders. In most cases, the people tend to share the same customs, use the same language or dialect and exhibit identical socio-economic characteristics. Such a situation creates serious problems for the border patrols. The relations between Nigeria and her Francophone neighbours are products of Africa's encounter with European imperialism and colonialism. Firearms played a part in creating large political entities which inhibit the process of nation-building and state formation (Otite 2007:75).

Smuggling

One of the weaknesses of the Nigerian border posts and patrol situation is the encouragement of smuggling. It must, however, be stated here that smuggling among Nigerians is as old as external trade itself. Both Jones and McFarlan in their studies have demonstrated that smuggling was already rearing it head among the traders of the Oil Rivers (Ben and Craig 1986:78).

As a matter of fact, when Major Claude McDonald was appointed commissioner and Consul-General of the Oil Rivers Protectorate in 1891, the first thing he did at Calabar was to set up a customs house to exact toll on European goods entering the country. That was 120 years ago when the concept of customs and excise started. In which case, commercial relations played a part in the development of *ad hoc* diplomacy as well as the expansion of foreign relations. Although smuggling had been going on in the country long before independence, probably it never attained the level at which it is operating, and never involved the range of personalities and organizational management it has reached today. In the early days, smugglingnappeared to have centred mainly in the Eastern states with the Cross River as the fulcrum. Then the main impetus came from the large Nigerian population which worked in the cocoa plantations of Fernando Po and Rio Muni (Equatorial Guinea). Udo notes that since the slave trade was stopped and the legitimate trade in palm produce fell into government hands, the Cross River and its main tributary, the Enyong Creek, became notorious highways for smuggling of goods, including alcohol, tobacco, drugs and cloth from the Equatorial Guinea Island of Fernando Po. During this early period of smuggling, effective use of the creeks and inlets was made by the culprits in an attempt to beat the anti-smuggling government patrols and custom men (Uke 1999:33).

The problems of nation-building in Africa

Nations are an important part of modern society. If we go back into history, we see that the world used to be divided into empires and kingdoms. In the modern period, however, nations or nation states have replaced empires as the basic units of human political organisation. Nations just don't happen by historical accident; rather they are built by men and women with vision and resolve; nation-building is therefore the product of conscious statecraft. Nation-building is always a work-in-progress; a dynamic process in constant need of nurturing and re-invention (Gambari 1990:75).

Nation-building has many important aspects. Firstly, it is about building a political entity which corresponds to a given territory, based on some generally accepted rules, norms and principles and a common citizenship. Nation-building is about building the tangible and intangible threads that hold a political entity together and give it a sense of purpose. Even in these days of globalisation and rapid international flows of people and ideas, having a viable nation remains synonymous with achieving modernity. It is about building the institutions and values which sustain the collective community in these modern times.

In today's world, skills, industriousness, productivity, and competitiveness are the determinant factors of national greatness. Not even the possession of a nuclear bomb is enough to make a nation great without reference to the industriousness and creativity of its citizens. Since the time of Adam Smith, every serious nationalist and politician has

come to know that the wealth of a nation is not based on the wealth and opulence of its rulers, but on the productivity and industriousness of its citizenry.

Natural resources

Territorial disputes can also be explained by the presence of natural resources. Morocco's claim on Algerian territory in 1963 appears to have had an economic motive – the presence of oil deposits in the desert area. Likewise, its war with the POLISARIO involves more than territorial interest. If Morocco controlled the Western Sahara, it would have been able to monopolise the production and marketing of phosphate and to exploit the area's iron ore deposits. Libya's claim to the Northern Aouzou strip of Chad stems from the presence of uranium in the region. The Nile water is a potential source of inter-state conflict among the Nile Valley states. Since the coming of a socialist government in Ethiopia, Egypt has on several occasions declared it would go to war with Ethiopia highlands. The Blue Nile is important for the annual flooding of the River Nile on which both Egypt and Sudan depend heavily for agricultural activities. Given the foregoing, the, conflicts around the Nile valley states hinder nation-building.

Decolonisation

If territorial disputes lead to military engagement in Africa, decolonisation was another cause of violent conflict. The support of independent African states for liberation movements exposed these states to colonialist military aggression. During the 1960s Tanzania supported FRELIMO's war against Portuguese colonialists. In the 1970s Guinea's support for the liberation struggle in neighbouring Guinea-Bissau brought it into conflict with the Portuguese authorities. The white minority regime in the former Rhodesia made repeated raids into Mozambique to operate from their territory. Angola, which gave support and shelter to SWAPO's fight for the liberation of Namibia, suffered considerable hardship from South African aggression and interference. In its attempt to prevent the liberation of Namibia, South Africa resorted to full-scale military invasions of Angola and it was clear that the 1984 agreement between the two countries did lead to peaceful co-existence as long as Namibia remained under South African occupation (Ojo and Orwa *et al*. 1987:45).

The challenge of leadership

Within the last two decades, the international community has witnessed dramatic transformation with serious repercussions for Third World Countries. One of such fundamental changes is the disintegration of the erstwhile Soviet Union and the subsequent rise of democratic movements that overthrew totalitarian regimes in Eastern Europe. The resurgence of democratic movements as part of what Huntington describes as the "Third Wave" of democratisation also swept across the African continent. One-party and military dictatorships that hitherto monopolised power were confronted by civil society and pro-democracy movements which insisted on opening the democratic space. In African countries such as Benin, Zambia, Ghana, Malawi, Ethiopia, Kenya and Nigeria, pluralism in political competition was installed by regimes which hitherto had monopolised political power. In Zambia, for example, the United Independence Party of Kenneth Kaunda which had monopolised the political space had to submit to political pluralism and democratic competition following agitation from civil society formations, especially the Zambian council of trade unions. In Benin Republic, trade unions, students, traders, etc. mobilised into a formidable political opposition that ultimately compelled the Kerekou regime to succumb to a sovereign national conference which eventually led to the removal of autocracy and the installation of a democratic regime. Nevertheless, democracy in the real sense of the word has yet to take its place in Africa. This challenge of leadership is a problem for nation-building (Mazrui 1977:72).

Foreign intervention

Foreign intervention in the internal affairs of African countries has by no means come to an end, especially in ex-French colonies in central Africa. As a result of the military pact with the French, French troops have been stationed in a number of these countries for several years at the request of local governments of the ex-French colonies. Opposition groups now contend that the French forces are being used to uphold dictatorial tendencies and should be withdrawn. This has caused some political instability in the region, making nation-building impossible (Reynold 1973:193).

The inauguration of ECOWAS in Lagos on 28 May 1975 was a breakthrough in the long series of efforts to institute some form of economic co-operation and integration embracing the entire West African region. The aim of France was to inhibit the growth of the ECOWAS (Nwaka 1990:56).

Conclusion

The value of the study is to compare the pre-colonial boundaries with the colonial boundaries as well as highlighting the implications of the Berlin-Colonial Conference of 1884-85 on Africa. It is our finding that because of the artificiality and arbitrary nature of the colonial boundaries each of the African nation states is made up of diverse cultural backgrounds, traditions of origin and languages that pose the problems of nation-building in modern African states. A major implication

of the Berlin Colonial Conference is artificial creation, widespread social disruption and displacement of people in terms of refugee problems. Ethnic groups that were split across borders tend to align in the spirit of irredentism, ignore the boundary lines and carry on social relations across them more or less as in the days before the partition. This tendency to ignore the boundaries has often created inter-state problems, as confusion is created by the group that crosses a border line. The problem is more pronounced where border groups are traditional warring enemies.

We have examined the factors of France's political and economic stranglehold on her former colonies; in particular the 1961 bilateral agreement to retain close military, economic and cultural ties with the former Francophone States. This dichotomy and divisive tendency inhibit the growth and stability of the ECOWAS as a sub-regional economic integration. We have demonstrated the manner in which the Francophone dichotomy has become a divisive tendency that contributes to territorial disputes, border skirmishes, border posts and patrolling in Africa. The Francophone state could always depend on France in the event of any military confrontation with their neighbours, Nigeria in particular. All this hinders nation-building in Africa and regional integration.

Our preliminary suggestion has been that African peoples through the instrumentality of the African Union (AU) should redo the boundaries wherever there is conflict and allow the sleeping "dog" to lie. Where no conflict exists, nobody should be forced to maintain colonial boundaries.

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The status and challenges of clinical informatics development in South Africa

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Abstract

Clinical informatics has enormous potential to ensure healthcare quality in both developed and developing countries. This paper examines the status and challenges of clinical informatics in the South African health care sector, In a recent survey of major international research databases such as Scopus, it was observed that there is a gap in knowledge on clinical informatics particularly as related to the status and challenges in the country's healthcare facilities . The current status and challenges of clinical informatics in South Africa has not been examined. The present study explores the the current status of clinical informatics in the South African healthcare system as well as the challenges facing the development of clinical informatics in South Africa. Through a literature review, the paper provides a conceptual background of clinical informatics, discusses the status and challenges of clinical informatics in South Africa. The last part of the paper discusses the implications of the reviewed literature through a PEST analysis. The paper provides invaluable information on clinical informatics in South Africa that can be used to inform and support further studies in this growing field. The paper is a contribution to discussions and debates on the development of social informatics.

Keywords: clinical informatics, status, challenges, ICT4D, Social informatics, South Africa

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Introduction

Clinical informatics is the application of information and communication technology (ICT) in all facets of medicine and a healthcare system (Polasek and Kern 2012). Polasek and Kern further explain that clinical informatics assists the medical doctors in improving their clinical practices. According to the Agency for Health Care Research and Quality (2001), clinical information could be categorised into the following: Electronic Medical Record, Computerised Physician Order Entry, Computerised Decision Support Systems and Diagnosis Imagery Archive.

The objective of clinical informatics in effective healthcare delivery, as observed by Staggers *et al.* (2002), is to improve the health condition of the people through adequate use of ICT resources in the direct diagnosis, treatment and evidence-based medicine for the care of patients. The contributions of clinical informatics to a medical professional include the following: promotion of knowledge sharing, adequate health monitoring, statistics gathering analysis, and the delivery of effective healthcare services (Olatokun and Adeboyejo 2009). Daniel and Oyetunji (2013) identify various purposes in which medical doctors utilise clinical informatics such as the provision of adequate access to professional colleagues through instant transmission/receipt mail message, electronic file systems, and power search utilities to locate information stored in millions of computers around the world, effective communication through the use of the Internet, and diagnosis of patients.

The application of clinical informatics by medical doctors has different goals in developed and developing countries. In developed countries, the main objective of clinical informatics is to reduce healthcare costs, to budget and to provide effective healthcare delivery to people irespective of their origins and colours (European Commision 2010). On the other hand, in developing countries, the main objective of clinical informatics is to provide improved access to medical care to people due to already limited access to effective healthcare resources (Haluza and Jungwith 2014).

Nuq (2012) indicates that there is a shortage of 4.3 million doctors and other health workers all over the world. He argues further that third world countries are the worst hit, particularly African countries which have 24% of the global burden of diseases with only 3% of the world's medical doctors and less than 1% of the world's health expenditure.

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Wooton, Patil, Scott and Ho (2009) identify various reasons for the need to instil clinical informatics in developing countries, which include expensive costs of traditional healthcare services, shortage of medical doctors in developing countries, lack of qualified personnel in healthcare sectors and ICT innovation. Clinical informatics also provides a window of opportunity to the health sector, particularly in developing countries, through the introduction of ICT resources aimed at reducing epidemics and disease surveillance (Dawaon 2007).

Access to effective clinical informatics is important as it increases healthcare delivery. Unfortunately, medical doctors' inadequate access to and use of clinical informatics prevents them from rendering effective and quality healthcare services to people through preventive, diagnostic, restoration and rehabilitation cares. Ruxwana, Herselman and Conrate (2010) had earlier observed that clinical informatics tools are not being used in most teaching hospitals in Africa because of limited suitable resources. We argue that medical doctors in teaching hospitals in Africa will not be able to render effective, timely, and efficient medical services for their patients due to inadequate access to clinical informatics tools, and lack of the skills in the use of these facilities. Inadequate access to and use of clinical informatics among medical doctors has brought about medical errors and mis-diagnoses. Many people are casualties of medical doctors' inability to access and use informatics tools effectively. Medical errors could have been prevented if medical doctors have access and the ability to use clinical informatics effectively (Idowu *et al*. 2008). Ushie, Salami and Jegede (2013) estimate that as many as 44,000 to 98,000 patients died annually from wrong diagnosis in the United State of America. In Nigeria, 13 to 43% of the instances where stroke has been misdiagnosed due to lack of access and use of clinical informatics tools have been reported (Imam and Olorufemi 2006). Similarly, in South Africa, 40% of medical doctors admitted to having made medical errors due to lack of access and use of clinical informatics in the administration of drugs to the patients (Labuschagne *et al*. 2011).

There is evidence that access to and use of clinical informatics tools in a hospital can improve the quality of healthcare delivery. This can be achieved by adherence to guidelines, enhancing disease surveillance, promoting evidence-based medicine and reducing medical errors.

Several recent studies exist that underscore ICT use among medical doctors (e.g. Cline and Luiz, 2013; Nwagwu and Adio, 2013; Ruxwana *et al*. 2010; Idowu, *et al*. 2008; and Ajuwon, 2006) and noted that there is a paucity of literature in the domain of clinical informatics in Africa. For instance, a search on Scopus database which is the largest database in health sciences (Adelaide University 2014) was employed to examine the number of articles that were published in peer review journals between the years 2005-2015 on clinical informatics in South Africa. The result revealed that between the aforementioned years only twelve articles were published in South Africa.

In this paper we review the development of clinical informatics in South Africa with the intention of providing understanding of the status and challenges for possible intervention.

2. Clinical Informatics development in South Africa

Good and high quality healthcare systems are necessary components to improve clinical outcomes and to bring uplift to the health status of a country (Department of Health Annual Report 2013). e-Health Strategies of South Africa (2012) states that an effective health care system is a function of an adequate and reliable health information system that assists in producing relevant and accurate information for decision-making. It has been widely accepted that Information and Communication Technology is a critical resource for achieving this.

2.1 Policy and legislation

There are many policies, strategies and legislations that support the development and implementation of ICT in health care delivery in South Africa. Among the policies are the White Paper on Health Care Reform (1997), Public Service Act (2001), Health Sector Strategies Framework (1999-2004), Strategic Priorities for the National Health System 2004-2009, Medical Scheme Act (Acts 131 of 1998), Public Financial Management Act (Act 1 of 1998), Statistics Act (Acts 6 of 1999) , National Health Acts (Act 61 of 2003), Medical Schemes (Acts 131 of 1998), and National Health Amendment Act (Act 12 of 2013).

The e-Health Plan outlines the employment of ICT for effective healthcare delivery particularly in the treatment of patients, research, training of medical students, tracking of diseases and monitoring of public health. The document outlines ten strategic priorities for ICT use in healthcare delivery. Among these strategies are capacity building for medical doctors, standards and developing application to support healthcare delivery. Among the specific goals stated in the documents are adequate budgetary allocation and issues of affordability and sustainability of access and use of ICT tools in effective healthcare delivery, registration of all medical doctors with their professional body and professional accreditation of health informatics in the country (e-health Strategies Plan 2012).

2.2 Healthcare facilities and equipment

The National Health Act, 2003 (Act 61 of 2003) states that there is a single health system for South Africa. It stipulates the rights and responsibilities of various healthcare facilities and health providers and ensures broader participation in healthcare delivery.

The National Health Care Facilities Baseline Audit (2012) and South Africa Year Book (2015) describe various forms of healthcare facilities in the country. For instance, a clinic is a permanent, well-equipped health facility in which primary health care services are provided. It provides accident, emergency and midwifery services. On the other hand, the audit document defines a district hospital as a level 1 facility that provides outpatient and inpatient services. The services are offered with support from general medical doctors and the facilities can perform operations under general anaesthesia (NHCFBA 2012). Cullan (2006) and Scott (2011) note that of 388 hospitals in the country, 64% are district hospitals, 16% are secondary and 4% are provincial and national hospitals.

A regional hospital is a (level 2) facility that caters for and requires the services of specialists and general medical doctors. These hospitals cater for the following seven basic specialities: surgery, medicine, orthopaedics, paediatrics, obstetrics, gynaecology and psychiatry, with the services of radiology and anaesthesia. Another level 2 hospital is the tertiary hospital. Level 3 health facilities comprise the National Central Hospital which is mandated to provide tertiary hospital service and central referral services (Department of Health 2013). They are mandated to provide medical services such as heart and lung transplants, bone marrow transplants, liver transplants and cochlear implants. The facility provides training for medical students, conducts medical research and receives patients referred from regional hospitals. The facility is attached to a medical college as a teaching arm (NBHA 2013).

The essence of the classification of the healthcare facilities in South Africa may be due to the need to redress social and economic injustices, to eliminate poverty, reduce waste, increase efficiency and promote access to quality health. It is also seen as part of improving the healthcare system and ensuring that everybody has equitable access to essential and quality healthcare. The South African government is making efforts to promote adequate health facilities and equipment.

The Department of Health set up a committee to audit the health facilities, particularly to assess infrastructure and human resources. The findings of the committee revealed that essential medical facilities, which include ICT tools, have increased from 40% to 78% as of 2013 (Government of South Africa 2015). This increase in medical facilities may be attributed to the South African's government's commitment to the improvement of ICT access and use in medical infrastructure, through the introduction of the National Health Insurance Scheme that makes funds available for the project. Furthermore, the recent introduction of the National Health Act (Act 12 of 2013) established the Office of Health Standards Compliance which is mandated to inspect ICTs and other medical facilities in both government and private hospitals once every four years.

2.3 Human resources

Bandiwala, Fonn, Osegbeagbe and Tollaman (2010) stress that human resources are very vital in the task of repositioning healthcare delivery in South Africa. In order to strengthen the capacity of human resources in the health sector, the Minister of Health launched the Albertina Sisulu Executive Leadership Programme in Health (ASELPH) in 2013 in collaboration with the University of Pretoria, University of Fort Hare, Harvard University, Department of Public Health and South African Department of Health (South Africa Government 2013). Part of training involves the use of ICT tools for effective healthcare delivery (South Africa Government 2013).

However, a report by the Human Sciences Research Council (2009) determines that there were 5103 public sector vacancies for medical doctors in 2006. Erasmus (2008) likewise conducted a study on the shortage of medical doctors in public hospitals in South Africa. The study analysed the Department of Labour's (DOL) database, 112828 vacancies advertised in newspapers from April 2004 to March, 2007 and discovered that 36% of the vacancies were for medical doctors. In the year 2012, there were 165,371 qualified health practitioners in both public and private sectors health facilities that were registered with the Health Professions Council of South Africa. This includes 38,236 doctors and 5,560 dentists. The doctor-to-population ratio is estimated to be 0.77 per 1000, and the vast number of practitioners (73%), the majority of medical doctors worked in the private sector. As at 2012 there was 1 practicing medical doctor per 4219 people (26 SA Medical Stats 2012; South Africa Info 2012). The above illustrates that the medical doctors-to- population ration is very low (South Africa Info 2012).

In addition the basic medical equipment is not meeting the working standards of medical doctors and the work environment is not conducive (South Africa Infor 2012). These factors may be responsible for the shortage of medical doctors and other allied workers, who may have left for greener pastures. South Africa Infor (2012) enumerates various steps that the government is taking to increase the number of medical doctors in the country. These included signing an agreement with the Cuban, Tunisian and Iranian governments on the training of medical students from South Africa,

employment of Cuban medical doctors, one year compulsory community training, and the state policy to produce 1200 medical doctors from medical schools within South Africa annually.

2.4 Finance of health in South Africa

The National Planning Commission (2014) maintains that the South African health care system needs to be well funded in order to provide adequate health care to the people. The South African government has invested heavily in the health sector. An average of 8.2% of Gross Domestics Product (GDP) is spent annually on the health sector (Econex 2013).

Econex (2013) provides the percentage of budgetary allocations to health from 2007-2012, indicating that it was 7.5% in 2007/2008, 8% in 2008/2009, 8.5% in 2009/10, 8% in 2010/11 and 8% in 2011/2012. %?). The National Planning Commission (2014) notes that the government of South Africa is spending large amounts of money on health in order to achieve the health targets set out by the MGDs which include: increasing life expectancy to 70 years of age by the year 2030, reducing the HIV /AIDS rate in the country, reducing maternal mortality from 500 to 100 for every 100,000 live births, provision of treatment and the need to put preventive mechanisms in place to prevent the spread of diseases, the need to reduce communicable diseases by 28%, and the provision of free access to equal and standardized health care services. The majority of the funds spent on the health care sector in the country come from the national treasury. The budget for the year 2012 was put at R121 billion, which was aimed at improving the hospitals and providing them with adequate ICT tools (NPC 2012).

South Africa Infor (2014) states that in the 2014 budget almost R19.3billion was allocated to the refurbishing and purchasing of ICT tools and other clinical equipment. Another R1.2 billion was allocated to vital equipment and ICT tools in 856 clinics, 66 hospitals, 17 specialised hospitals and 10 additional hospitals which formed the three metropolitan health complexes (Bateman, 2012).

In order to promote ICT use in hospitals, the government introduced a programme known as Hospital Infrastructures, Procurement of Necessary Equipment and Management Skills which is mandated to equip all public hospital facilities with the latest ICT tools. This was mobilised with the sum of R 1.9 billion as a take up grant (Medical Club of South Africa 2013). In 2011/2012, the national government allocated a sum of R442 million to ICT development in the public health sector and another R442 was allocated in the same year to teaching hospitals to procure relevant ICT tools in their different hospitals. The government also established 29 hi-tech (ICT) hospitals all around South Africa (Medical Club of South Africa 2014).

Furthermore, National Health Insurance (2012) earmarked R125 billion for the provision of ICT tools in the public health sector from 2012 to 2020 and another R255 billion to be spent in the year 2025 for the same purpose .This represents an average annual increase of 4% in real value when compared to the average real increase in the public health expenditure of 6.6% over the last 10 years. Trevor Manuel (2007), the then minister of finance, in his budget speech, observed that the national government had set aside 1billion Rand for ICT infrastructure development in the public health sector in that fiscal year and earmarked another 1 billion Rand for all the teaching hospitals for automating their equipment.

It is therefore plausible to conclude that the South African government has been spending large amounts of funds on healthcare infrastructure and ICT tools development so that the citizens could have access to better healthcare facilities as is clearly stated in the Constitution.

2.5. ICT access and use in the health care sector

The history of ICT to public health care delivery in South Africa can be traced to the formation of the District Health Information (DHIS) which was launched in 1998 in all the provinces. This was the first systematic computer data gathering tool that was used to link all the primary health centres in the country together for the collection of information on various national health indicators. The programme was facilitated by the Health Information Systems Programme (HISP) and comprised training on ICT, data handling processes, and software tools and design for health care delivery (Info Dev 2006).

The computerised National Health Care Management Information System was introduced in 1994 to cover medical records, registration of health care users, and to control the billing system in selected hospitals in the nine provinces (Littlejohns, Wyatt and Garvican 2003). The South African Department of Health, in collaboration with the Department of Home Affairs, also introduced an ICT project on healthcare named the HANIS Project in which the data elements of every citizen would be stored and infused into a smart card which would contain their medical history, diagnoses, treatment, prescription and medical aid (Infor Dev 2006).

According to the South African Constitution, particularly Clause 27, everyone has the right to enjoy and access good health care services and this includes reproductive health, sufficient food, shelter, water and social security, especially for individuals who are unable to care for themselves. Access to equitable health care is a basic human right. The

Constitution and the Bill of Rights of the Republic of South Africa Section 27 (1) (a) stipulates that: "everyone has the right to have access to health care services" and section 27 (2) states that the government must "take reasonable legislative and other measures to achieve the progressive realisation of the right" (Constitution of the Republic of South Africa 1996). The DoH (2013) lists the strategic priorities that need to be attended to before there could be effective ICT leverage in healthcare delivery to include proper strategy and leadership, involvement of stakeholders, standards and interoperability, good governance and regulations, affordability, benefit gain, capacity and workforce.

Mars and Seebregts (2008) explain the role of the South African government in developing and promoting ICT access and use in healthcare delivery. They observed that the country is an active member of ISO/TC 46 (National Information Standards Technical Committee) which is tasked with harmonising standards in the world of information globally and facilitating access to knowledge and information (The Information, 2015). Furthermore, South Africa has made efforts to promote the interoperability and interchange of data. The country also employed ICD-10 as the national diagnosis standard and HL7 version 2.4 as the national messaging standard, particularly in the public sector (Council for Medical Scheme 2014).

South Africa's eHealth Strategies (2011) lists various initiatives that the government has adopted to promote the use of and access to ICT in the health sector. Such strategies include a telemedicine project undertaken by the Medical Research Council, Health's Love Life project and the establishment of the Closed Health Broadcast Channel. The DoH (2013) examines the status of telemedicine in South Africa and has discovered that telemedicine facilities had increased from 28 to 68 sites, with the highest number in the province of KwaZulu-Natal. These and other initiatives suggest that the government has realised the positive impact of ICT in the promotion and improvement of the country's healthcare system, particularly in remote areas.

The aim of all these initiatives is to create awareness and understanding of the benefits of clinical ICT tools as a mechanism for the promotion of better health care. These initiatives also aim to contribute to economic and social development as well as support the building of a formidable ICT infrastructure in the health care system. The government's support for the promotion of the ICT use and access in the country is noted by Mars and Seebregts (2008), who claim that "the development of ICT use in health is a very important project in the mind of South Africa and as a result, the National Department of Health has presented many policy documents (which include a white paper, discussion documents and bills) which will promote the adoption of clinical informatics in the country."

The Department of Health (2013) states that the major purpose of ICT use in healthcare delivery in South Africa is to improve the health status of the people. South Africa's eHealth Strategies (2012) states that with ICT tools in place, the people will enjoy the following benefits: effective and standard management of healthcare institutions; access to repositories of knowledge; applications and literature; and education for public and access to formal education for health service professional. ICT tools also overcome distance in the diagnosis and treatment of patients.

2.6. Opportunities

The opportunities of access to and the use of ICT in healthcare facilities are discussed under the following headings: transformation of the health system, ICT capacity building, and encouraging collaborations.

2.6.1 Transformation of the health system

ICT access and use has brought much transformation into the health care sector through the introduction of innovations such as an electronic TB register which is being used in all the provinces, as well as the health care information system (PHCIS), electronic patients' administration, and billing system which are being used in Gauteng, North West and Mpumalanga (Gray and Varuda 2014).

In addition, the use of ICT in health has brought innovation into the legislative instrument in the country through the introduction of ICT-related laws that will promote the access and use of ICT in the health care system such as State Information Technology Agency Act (88 of 1998) and Policy of Free and open Source software. (Department of Health 2014).

2.6.2 ICT capacity building

As indicated earlier, improving the quality of health care has been an important objective of the South African Department of Health for a number of years (Department of Health 2013). There has been a greater focus in South Africa on how ICT could strengthen and promote capacity building and improve the quality of health services in the country.

As a result, the National Department of Health agreed to work with the Department of Education in developing an ICT skills curriculum for medical students (Education Labour Relations Council 2003). Realising the importance of capacity building in ICT among medical doctors, the Universities of Kwa-Zulu Natal and Walter Sisulu introduced a new course called 'health informatics' that aim to keep medical doctors abreast of the relevance of ICT in health care delivery and to train medical doctors and allied health workers in the use of computers and other relevant clinical informatics

tools. Coleman (2013) notes that ICT access and use in health care delivery in South African hospitals should promote efficiency, accountability and build confidence in the minds of the medical doctors and the patients.

2.6.3 Building collaboration

Healthcare in South Africa is undergoing far-reaching reforms to revitalise and restructure the system and to ensure access to quality healthcare for all. Ruxwana, Herselman and Contradie (2010) state that the integration and incorporation of ICT into the healthcare sector will improve medical doctors' competence. There are a lot of project initiatives, companies and donor agencies that are collaborating in the promotion of ICT in health care delivery in South Africa (Gray and Varda 2014). The Department of Science and Technology (2014) lists some of the agencies that are working with the Department of Health in promoting the ICT to include the South Africa Government National Research Network (SANReN) and National Nanotechnology Strategy Department.

In addition, the government has decided to provide Internet connectivity to all the academic hospitals through the SANReN programme, in which almost 173 research and educational institutions have been connected with high speed networks (Department of Science and Technology 2014). This has resulted in the roll-out of high-speed broadband networks to all the teaching hospitals in the country. The National Health Laboratory service is another agency that is collaborating with the Department of Health in promoting access to and the use of ICT in health care by providing laboratory diagnostic services (Department of Science and Technology 2014).

2.6.4 Promoting infrastructural development

The South African government has realised the importance of promoting ICT infrastructure in the country. Ntetha and Mostert (2011) state that the government has been promising effective service delivery in all the sectors, particularly the health sector, by providing a wide range of ICT infrastructure for effective service delivery. To achieve this, the South African government has spent a lot on providing network infrastructure that will promote access and use of ICT for effective healthcare service delivery. The Department of Communication (2014) set a target of 13% broadband penetration for health facilities by the year 2013. This was to be increased to 50% of 10Mbps by the year 2016. By the year 2020, it is expected to have increased to 100% of 10 Mbs or 80% at 10MB.

Burger (2010) restates the need for adequate ICT infrastructure for effective healthcare delivery, particularly in providing evidence-based medicine and reduction in cost. Mutula and Mostert (2010) confirm that South Africa's government has plans towards the promotion of ICT infrastructure in the country, by launching various ICT projects for quality service delivery, with regulatory framework policies.

2.6.5 ICT infrastructure development

Adequate investment in the growth of ICT infrastructure contributes to the economic development and transformation of the healthcare sector (National Integrated ICT Policy Green Paper 2014). The deployment of ICT tools in healthcare services is essential to improving the quality of healthcare in the country. According to the National ehealth Strategy South Africa (2012), the key issue that the South African government is facing is how to provide accessible, affordable and reliable ICT tools to the healthcare sectors as part of its economic development.

The South African government is also examining ways to include adequate access to broadband connectivity to various healthcare facilities in the country (National Integrated ICT Policy Green Paper 2014).

2.6.6 Policy framework

The Department of Health (2012) notes that the South African government has spent a lot of funds to procure relevant ICT tools for effective healthcare delivery. The available ICTs within the healthcare system have largely not met the requirements and support of the healthcare sector due to lack of regulations and policy frameworks in relation to technology usage (Department of Health 2012). The National Integrated ICT Policy Green Paper (2013) declares that South African policies and legislation on the access to and use of ICTs in healthcare have been slow in implementation. The need for right ICT policies in healthcare delivery is to ensure and maintain the growth brought about by technology and translate it into effective healthcare service.

The National Integrated ICT Policy Green Paper (2013) emphasises the necessity for policy review in healthcare delivery because of the speed of technological advancement and the advent of new media such as the Internet. The policy process needs to recognise that the healthcare system is changing, and the policy interventions need to be evaluated and assessed against the changing objectives of the healthcare system.

2.7. Challenges

Some of the challenges facing ICT access and use among medical doctors in South African teaching hospitals are discussed below.

2.7.1. Low bandwidth

Bandwidth is one of the challenges facing access and use of ICT in healthcare facilities in South Africa. Sharpey-Schafer and Suleman (2008) claim that uneven bandwidth availability on different segments and often a complete lack of bandwidth is a serious challenge facing many healthcare facilities in South Africa. The National Integrated ICT Policy (2014) confirms the lack of necessary high speed bandwidth networks for effective healthcare delivery in South Africa. Telkom (2015) identifies various challenges facing broadband plans in South Africa to include: geographical situation and demographics, data explosion, changing consumption, low speed performance as well as coverage and affordability.

2.7.2. Inadequate funding of ICT in healthcare

The key enabler to access and use of ICTs in healthcare delivery is finance. However, there are limited investments in ICTs for health in most African countries (Agbele, Nyongeza and Adesina 2010). Insufficient financial resources and structural reliance on foreign agencies for the donation of ICT tools is affecting ICT access and use in many hospitals in South Africa (Modiba and Kotz 2011). An audit assessment of ICT has revealed disparities in the treatment of ICT as a strategic enabler for healthcare service delivery in the provinces (Department of Health 2012). The disparity is reflected in the budgetary allocation for health in the year 2009; while Gauteng, Limpopo and KwaZulu-Natal's budget was R188.3m, R178.6m and R105m respectively in nominal terms, North West, Northern Cape and the Free State's budget was R15m, R20.4m and R32m respectively (e-health South Africa 2012).

This implies that there has been poor funding and uncoordinated investment in ICT in healthcare delivery. The major key enabler to the access and use of ICTs for healthcare delivery across the country. Some hospitals may therefore find themselves at a disadvantage.

2.7.3. Poor ICT skills

Lack of literacy and computing skills as well as support have been identified as significant factors that prevent many professionals like medical doctors from using the Internet and other forms of ICT (Buabeng-Andoh 2012). Sukums, Mensak, Mpembeni, Kattscmidt, Haefeli, and Blank (2014) claim that computer usage among medical doctors in developing countries such as South Africa is limited because of the lack of adequate skills to operate computers.

South Africa Infor (2014) reveals that the country is well rated in term of the availability of ICT in the health sector. However, Week (2013) notes that despite this high ranking, lack of ICT skills remains a significant barrier to the use of this resource by medical doctors and other professionals. Coleman (2013) agrees that despite the availability of ICT facilities in hospitals, many medical doctors in South Africa are unable to use them. For example, in his study (Coleman 2013) focusing on computer skills among medical doctors in South Africa, he determined that 46% of the medical doctors lacked the skills to operate computers, and 42% admitted that they were averagely skilled in the use of computers, while 12% stated that they had the skills to operate computers.

In order to improve the quality of the clinical information that medical doctors can access, it is essential that they acquire relevant ICT skills to access information from computers. Therefore, in order to improve the quality of the healthcare sector in South Africa, there is an urgent need to train medical doctors to operate computers and access information relating to their medical practice (Loveday, Smith and Monticeli 2006).

3. Conclusions

This article is part of a larger PhD study (Owolabi 2017) focusing on access and use of clinical informatics among medical doctors in selected teaching hospitals in Nigeria and South Africa. In the conclusion of the study, it was observed that the clinical informatics environments in the two teaching hospitals are inadequate and there is poor access to clinical informatics resources among medical doctors in the selected teaching hospitals. Major recommendations of the study included the need to establish ICT policies and increase investment in clinical informatics resources at the surveyed teaching hospitals in order to promote effective and value-based healthcare delivery. Also that the hospital management should create awareness on the importance and benefits of clinical informatics particularly for the medical doctors through informal and continuing education and training such as workshops and short courses. Collaboration between the hospital managements with relevant stakeholders such as government, corporate bodies, and departments of health was stressed.

In this paper South African government efforts to develop and improve healthcare facilities through policy and legislations, funding, human resources and infrastructure are recognised. The awareness of the importance of ICT/health informatics in healthcare delivery is commendable. There is therefore a political, economic and technological will on the ground to improve access and use of the ICT in hospitals. The eminent challenges relate to policy revision, implementation, monitoring and evaluation. Inequality of access and use of the resources and infrastructure is also a challenge. For example, the bandwidth for high speed internet access is still an issue. In addition the lack of ICT skills

among medical doctors – as noted with examples in the study – need to be addressed through formal and informal education of the clinical doctors. The social challenge should be addressed as well.

The effective implementation and use of clinical informatics in healthcare service delivery needs to be anchored on policies that are adopted by all levels of government, private health providers, and allied workers. The policy documents should also spell out the role of the government and other stakeholders in the effective implementation of ICTs in the healthcare sector. We suggest the following consideration in the policy:

- The policy documents need to consider the interests of healthcare users, medical doctors, and allied workers in the sector and describe the ways the government could provide interventions with regard to ICT in healthcare delivery.
- The government policies on ICT and healthcare need to be supported with legal documents to ensure that the targets are met and to improve the quality of healthcare delivery.
- The policy needs to be tailored towards the development of clinical informatics.

There must be a regulatory body that will ensure compliance with and the enforcement of the policy documents on ICT in healthcare delivery. This is necessary because poor leadership and ineffective monitoring have been the basis for the unsuccessful implementation of most government policy programmes on healthcare. Consequently, political stability and effective monitoring are very necessary in supporting the effective implementation and use of ICT in healthcare service delivery in South Africa. Lastly, in order for clinical informatics to foster development in South African healthcare systems, there has to be political willingness on the part of the governments to create an enabling environment for ICT adoption and application.

Secondly, in order to effectively implement clinical informatics in South Africa, there is a need to consider the state of economic activities in both the short and the long term. This has become necessary, particularly when comparing the status of clinical informatics in the country to that of other developed nations. Studies by Adomi (2006) and Anie (2011) confirm that there is a close relationship between ICT use and economic development in South African healthcare systems, and that ICT has contributed positively to the development of the healthcare sector in South Africa. The authors also found that the impact of ICT on health contributes to the growth of the economy. Third, effective healthcare service delivery in South Africa require functional and adequate clinical informatics resources. Overall, there is a need for the governments and private organisations to collaborate on ways to improve clinical informatics infrastructure in the healthcare system.

This study has represented only part of the status, issues and challenges of clinical informatics in the country therefore it is our 'story or song'. While we have tried to represent current status as much as possible, there could be recent developments that we are not aware of. The study, however, provides important information for understanding and developing clinical informatics in the country and sets agenda for further research and discourse on this important healthcare knowledge and service. The contributions of this work can be considered from the point of view of literature, practice, and policy.

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Serving remote users in selected public university libraries in Kenya: perspectives of the section heads

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Abstract

The provision of information services to support teaching, learning and research has long been a major objective of libraries in higher education. The students being served by these libraries, specifically in Kenya, may consist of on-campus and remote user groups. This study set out to explore the library section heads' perspectives of the support services and resources meant for remote library users in selected public university libraries in Kenya with a view to recommending measures towards improving library services for this emerging group of library users. The study used a case study research design whereby qualitative data was collected using focus group discussions (FGDs) with section heads in four selected public university libraries in Kenya, namely the University of Nairobi (UoN), Kenyatta University (KU), Moi University (MU) and Egerton University (EU). The findings of the study are discussed under four main subject areas: services for remote users, physical facilities available for remote users, how libraries create awareness of their services to remote users, and policies and regulations that govern remote use of library resources. It is hoped that the study's findings will not only create awareness of the existence of remote users in academic libraries in Kenya, but will also open up debate on how effectively and efficiently this category of users can be served.

Keywords: Academic libraries, Kenya, universities, library users, remote users

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Introduction

Over the last 10 years, an expansion in higher education has been driven by social and economic imperatives. Equity of access to education for all potential students (including those qualified but who are unable or unwilling to participate as regular full-time students as well as distance learners, e-learners and part-time campus-based students) is increasingly recognized as important in serving the needs of not only rural or dispersed communities but also other disadvantaged groups in society. Flexible learning has been further stimulated by efforts to promote lifelong learning to ensure that the workforce has the skills required in a modern and changing economy, and to provide intellectual opportunities for an aging population. These factors have resulted in numerous initiatives. For example, conventional universities and new commercial competitors, using satellite centers or the Internet to deliver higher education, have initiated some flexible teaching programmes (Colins & Moonen 2002).

In Kenya, the social demands with respect to higher education have clearly intensified. The Kenya Government strives to make education accessible and affordable to all Kenyans by encouraging institutions to admit students based on learning facilities as opposed to the availability of accommodation space, besides self sustaining strategies of having those who have acquired a minimum qualification and can pay for their learning as opposed to government sponsorship.

This government initiative has seen a rise in the number of public and private universities, accredited colleges and the establishment of self-sponsored programmes in the public universities. Student enrolment in public universities in Kenya rapidly increased since 1964 (Ngare & Muindi 2008; Gudo, Olel & Oanda 2011). The number of students enrolled in public universities in Kenya was half a million in 2014/2015 financial year (Kenya National Bureau of Statistics 2016). As additional students are increasingly being enrolled in the open and distance learning (ODL) and continuous education degree programmes (CEP) in both the public and private universities, the numbers are obviously much higher. Distance

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education programmes, part-time learning and self-sponsored students who do not reside on university campuses are now standard in most colleges and universities.

These developments have led to increased enrolment of learners who are not limited by distance, in effect causing a paradigm shift in support and information service delivery in the institutions of higher learning. It is well acknowledged that justification for investing in higher education libraries lies in the extent to which linkage is demonstrated between such an investment and the library's role in the improvement of quality, efficiency, and achievement in university education (Kavulya 2004). A university library is an instrument that aids teaching, learning and research and/or scholarship. The librarian serves as a teacher, guiding the student in the ways of investigation and research. To achieve this, libraries acquire information materials to support tuition and research by the faculty and students, and organise the resources in a manner that permits easy access to the contents and ensuring that such access is facilitated by giving users the necessary skills to retrieve the required information (Virkus & Metsar 2004). ACRL Guidelines for Distance Learning Library Services (ACRL, 2000) state that "Members of the distance learning community are entitled to library services and resources equivalent to those provided for students and faculty in traditional campus settings".

Moyo and Cahoy (2003) argue that some institutions have not ensured that they are fully serving remote students. Traditionally, library facilities in most public institutions of higher learning were established and designed to serve the needs of on-campus users. This presents major limitations as time goes by and as the user behavior changes (Gust & Haka 2006; Wayne, Butters & Brophy 1997). Post the 1990s, there has been an increase in the demand for higher education thus a gradual increase in demand for more and quality services, including those offered by the libraries. Library and information services world over are facing new challenges that require reforms in information management and delivery styles. The increase in student enrolment and establishment of more colleges and campuses as well as expansion of programmes in institutions of higher learning present a higher demand for library and information services. According to Slade (2000) and Nyaigoti (2004), the adoption of new technologies has provided opportunities in education delivery as well as other service and product delivery, including library services. Other factors such as the changing user characteristics, internal factors which include the level of involvement by librarians as partners in the development of higher education, and the rapid pace at which new knowledge is created, presented and utilised, are among the recent developments which pose challenges in the provision of information and library services.

Traditionally, libraries offered circulation services, interlibrary loans, course reserves, an information desk, and reference desk and library instruction (Reynolds & Whitlatch 1985; Jurkowski 2003). Users had to physically get to the library building for a variety of services such as circulation services (borrow, return or reserve a book), readers' services, user registration, reference services, reprographic and binding services, bibliographic services, research, book and newspaper services, abstracting/indexing services, selective dissemination of information (SDI), current awareness (CAS), user education, searching and retrieval services, audiovisual services, and user support. The opening hours were posted at the entrance to the main building. Advances in technology, digitisation of resources (Black 2003), limited physical space in the library and an increased enrolment (Saleh 2014), have caused changes in the way users interact with their libraries. Johnson *et al.* (2004), too, believe that the use of ICTs in libraries has presented libraries with opportunities to extend access to and improve the quality of the services they offer to clients. However, Henner (2002) sees ICTs as tools that have not only created competitive environments in terms of the provision of information services such as bibliographic instruction which is now offered through the Internet, but also as drivers of a revolution that libraries and librarians face. Henner (2002: 80) aptly captures the revolution that ICTs pose for libraries and librarians thus: "given the near-ubiquitous ability to connect to library databases and full-text via a network, even users within close physical proximity to a library can be classified functionality as remote users". Wright & Waugh (1998: 75), in their article on remote users of health sciences libraries, argue that "trends in health management systems, education initiatives, and the rise of consumerism challenge health sciences librarians to evaluate and extend their services more than ever before using new technologies". Increasingly, the library users are no longer limited by time and space as they can access library services and information sources from anywhere and at any time (Baikady, Jessy & Bhat 2014). These developments, among others, have created an additional category of users who access information both on-campus and off-campus but through virtual means. These users are commonly referred to as remote users.

Remote users can be defined as any individuals accessing library resources from any site outside a library, without regard to physical distance and time (Cooper, Dempsey, Menon and Millson-Matula 1998; Graham and Grodzinski 2001). The remote users can be categorised into three primary groups, namely:

On-campus remote users,
Off-campus remote users
Distance education users (Cooper, Dempsey, Menon and Millson-Matula 1998; Graham and Grodzinski 2001; Henner 2002; Horo 2006; Baikady, Jessy & Bhat 2014).

On-campus remote users include those accessing library resources from the halls of residence, offices, classrooms and computer laboratories (Niemi, Ehrhard & Neeley 1998). This group has access to the library building but from time to time they require to access library services from places outside the library building. Reaching this category may not be a major concern as they are within the institution's Intranet and can easily connect to the resources as long as one has access to a connected facility (Niemi, Ehrhard & Neeley 1998; Horo 2006).

The off-campus remote users, on the other hand, consist primarily of students taking regular programmes but who are non-residents as well as some members of teaching and non-teaching staff members taking part-ftime classes within the campus or other institutions of higher learning (Niemi, Ehrhard & Neeley 1998). They may access library resources from their homes or other locations away from the library building. Another class of remote users consists of distance learners, including e-learners. The users in this category access the library's resources from greater distances and remote access is often their only means of obtaining library materials and services. We can safely argue that all members of staff in any given academic institution are potential library remote users as far as electronic services are concerned.

According to Debowski (2003), knowing the type of library users and their needs is critical to any successful information service. The 21st century library user is increasingly accessing the library services from computers and other external support tools. Debowski (2003) argues that the impact for the library as a place becomes significantly diminished as users seek alternative means of accessing information they need from distant facilities. Hence, he defines the remote user as any patron who accesses the library services without actually entering the library doors. The definition is flexible and may be tailored to fit a specific circumstance since the intent is to provide the broadest possible interpretation, not the narrowest, in order to provide library access to all who are eligible. Those registered as students or employees are the primary clientèle; but the library may choose to collaborate with and provide services and resources to others to the extent that time, staffing, and licence agreements with database vendors permit.

We have noted that this category of users has been surveyed in terms of their needs and expectations and findings have been presented in various studies (e.g. Cooper, Dempsey, Menon and Millson-Matula 1998; Saleh 2014). For instance, Saleh (2014: 3) raises pertinent issues for academic libraries in their drive to serve students at a distance, thus: "are the services and collections provided to remote users equivalent to those offered to on-campus users? Which services and resources are most used and/or most needed by remote users and why?" The author approached the study by exploring the perceptions of the users who felt that the services and resources provided by the Ramat libraries, University of Maiduguri, were satisfactory. The study did not investigate the perceptions of service providers and, for this reason, the current study targets librarians (service providers) to explore the status of service provision to remote users in selected public universities in Kenya. Broadly, the study focused on both the library directors and section heads in order to explore the library services, information resources, physical facilities, policies and procedures available for remote users in public universities in Kenya. The objectives of the study included:

To identify and describe the library services and resources available for remote users in public university libraries in Kenya.

To identify and describe the physical facilities available in the library to assist remote users in public universities in Kenya; and

To investigate how libraries in public universities create awareness about their services and resources to remote users.

To examine the library policies and procedures of serving remote users in the selected public libraries in Kenya

2. Methodology

Due to the nature of the problem investigated and the subsequent type of data to be collected, the study adopted a descriptive case study research design. Descriptive research designs are used in preliminary and exploratory studies to allow researchers to gather information and summarise, present and interpret data for the purpose of clarification (Orodho 2003). According to Mugenda and Mugenda (1999) the purpose of descriptive research is to determine and report the way things are and it helps in establishing the current status of the population under study. Gall, Borg and Gall (1996) note that descriptive survey research is intended to produce statistical information about aspects of a study that interest policy makers. Gay (1992) says that surveys are self-report study that requires the collection of quantifiable information from the sample. They are useful for describing, explaining or exploring the existing status of two or more variables (Mugenda and Mugenda 1999).

Four public universities, namely the University of Nairobi (UoN); Kenyatta University (KU); Moi University (MU) and Egerton University (EU), were selected for the study. The universities were selected based on the following factors: (a) they are among the oldest universities in Kenya and (b) they offer some online programs. The researchers also

considered the geographic location of the universities, whereby two universities each were selected from urban and rural areas in Kenya.

The study employed focus group discussions (FGDs) to collect data. According to the Bureau for Social Research (n.d.) cited in Moyane (2007), focus groups are carefully planned discussion groups designed to obtain perceptions on a specific area of interest. The focus groups constitute of six to eight participants and a skilled moderator who conducts the interview (Kombo and Tromp 2006:95). Bryman (2004) elucidated that focus groups emphasise a specific theme or topic that is explored in-depth. Walden (2004) affirmed that focus group interviewing can be successfully employed in a wide range of endeavors within librarianship. Compared with other social sciences, the field of library and information science has underutilised the method. Patricia Cavill, president of Pat Cavill Consulting (Taher 2006), observes that focus groups are an under-utilised market research tool in many libraries. In support of the method, the above mentioned scholars have noted that focus groups are cheaper than questionnaires and that the results tend to have a greater influence on decision makers because they use the words and feelings of library supporters. Lewis (2000:3) acknowledges that focus groups are a particularly good method for data collection as they enable researchers to understand how people feel or think about an issue, product, service, or idea.

Merton, Fiske, and Kendall as cited in Lewis (2000), suggest that "the size of the group should manifestly be governed by two considerations ... it should not be so large as to be unwieldy or to preclude adequate participation by most members nor should it be so small that it fails to provide substantially greater coverage than that of an interview with one individual". Lewis (2000) explains that the number of participants will depend on the objectives of the research, while Kreuger (1988:94) advises that smaller groups (4-6 people) are preferable when the participants have a great deal to share about the topic or have had intense or lengthy experiences with the topic of discussion. The focus group should be made up of homogeneous members of the target population (Kombo and Tromp 2006).

Based on the above background the focus group discussions were deemed helpful in gaining in-depth knowledge that may not be obtained when using other methods. The study used the focus group interview schedule to guide the researchers in the discussions. As recommended by Lewis (2000), this guide was developed directly from the research questions that were the impetus for the research. When formulating questions for the interview guide, the questions were ordered from a more general to the more specific one according to the objectives of the study as advised by Stewart and Shamdasani (as cited in Lewis 2000). Questions of greater importance were given higher priority while those of lesser significance were placed towards the end of the schedule.

One discussion group interview was held with the section heads in each of the four selected public university libraries in Kenya. The subject librarians, circulation librarians, periodical librarians, reference librarians, acquisition librarians, and ICT librarian/E-resource librarians constituted the target population for the study. The target was to have a group of six respondents in each library of the study. There are a total of four focus groups, each representing each university investigated in the study. At the UoN where we had the highest number of members of the group (i.e. 8), the team included the librarian in charge of the College of Education and External Studies and the IT librarian. The discussions focused on support services delivery for remote users in public university libraries in Kenya. The researchers, with the help of a library assistant, guided the discussion in each institution. We spent between one and two hours to conduct the discussions as advised by Lewis (2000) and Krueger & Casey (2000).

3. Results and discussion

This section presents the findings from the focus group interviews. The data is discussed in line with the objectives. As explained in the methodology section, the focus group interviews targeted section heads only. The data is presented and discussed under the following main themes: respondents' profiles, services for remote users, information resources for remote users, staffing, physical facilities, creation of awareness of services for remote users, policies and procedures as well as challenges of serving remote users.

3.1 Respondents' Profiles

This section presents data on the profile of the focus group respondents as stipulated in Table 1. The respondents were the section heads in charge of key service areas that serve or are directly linked to remote user services in the four public university libraries. Each library had a different title for the person in charge of the sections. An analysis of the staff titles who participated in the focus group discussions is shown in the table. UON and EU had 7 group members each. UON group comprised of circulation, ICT system, acquisition, periodicals and reference librarian reference librarian, and cataloguing librarian. KU group comprised six members: ICT, education librarian, social science librarian, head of humanities and cataloguing librarian. MU had 5 members composed of the circulation librarian, reader service librarian, and systems librarian while the Egerton University's group comprised 7 members, namely: reader service librarian, e-

resource librarian, acquisitions librarian, information librarian, periodical and special collection librarian, reference librarian, subject librarian, and cataloguing librarian.

Table 1 Focus group memberships

Respondent title	UON	KU	MU	EU
Circulation Librarian	X		X	
Reader Service Librarian			X	X
ICT Librarian		X		
System Librarian	X		X	
E-Resource Librarian				X
Acquisitions Librarian	X	X	X	X
Information Librarian				X
Periodical and Special Collection	X			X
Reference Librarian	X			X
Subject Librarian	X			X
Education In Charge		X		
Social Science In Charge		X		
Head Humanities		X		
Cataloguing Librarian	X	X	X	X
Total group members	**7**	**6**	**5**	**7**

3.2 Services and resources for remote users

This section presents data obtained from focus group discussions and covers services and resources for remote users in the following sub themes; services, resources and staffing (human resource).

3.2.1 Services for remote users

Questions were posed to respondents on how remote users were served, how the libraries ensured that users got what they sought, whether users could reserve and renew loans online, and how access to services was provided. From the onset, it was apparent that librarians were not aware of the exact meaning of 'remote users'. For instance, a member in the UON discussion group commented thus: "we do not have remote users in our library and all we have is an online catalogue where once an item is identified, a user has to make a personal visit to the issue counter with the book for fresh borrowing or renewal." This was inferred in the other libraries' discussion groups.

They also added that only when an item was available on the shelves was a user contacted by e-mail. The staff at MU and EU commented that they did not address the issue of off-campus users due to inadequate resources and lack of infrastructure to meet these needs. Discussants at the UON, KU, and MU did not identify services for remote users but indicated that the library offered traditional services while discussants at EU reported that book loans were supported by AMLIB NetOpacs automated loan system. However, users had to come to the library to borrow and renew books.

On how the groups ensured that users got what they sought, all the participating focus group discussants said that the resources were organised using the Library of Congress Classification scheme (LC) and shelves are well marked; while web-based resources depended on the keyword used to query the system. Remote users could call the librarian for assistance. Discussants at MU said that the users presented themselves for print-based materials, and visited the Internet at the campus and also used the provided passwords to access e-resources. At EU, the discussants said that the library collection was mainly print-based and the library staff ensured that books were shelved properly for ease of identification. However, users had access to e-resources which were available on the Local Area Network. Users were provided with passwords which were posted at the library's entrance. Passwords were provided to users to access HINARI, OARE and AGORA databases.

During further discussions, which happened after clarifying who remote users were, the following services were identified: book reservation, online loan renewal, online reference service and online information delivery as services that can be rendered to remote users. The group at UoN said that remote users could reserve items online since the catalogue was web based and could be accessed by any registered user by logging into the website; the respondents further indicated that users could identify whether or not the items are available and thereafter place a reservation

request where applicable. However, users have to personally present the books at the issue counter for initial borrowing and renewal. The discussants at KU revealed that although the term 'remote user' was not quite understood before, after discussions it was noted that KOHA an open source Integrated Library System (ILS) had the ability to provide remote services. The library, however, had not activated the system, and therefore was not able to determine and provide services to remote users.

MU indicated that remote users services would be possible upon the conversion of TINLIB (an open-source library for creating Triangulated Irregular Networks) to a web-based software, namely: ABCD, "Automatización de Bibliotecas y Centros de Documentación" (Spanish), which means: Library and Documentation Centers Automation that supports online information services. At EU, where they use a web-based library system called AMLIB NetOpacs, the respondents said that they did not offer online reserve and renewal services as some of the libraries in Kenyan public universities.

The issue of access protocols was considered in the group discussions. Some scholars (e.g. Nooshinfard & Ziaei 2011) have underscored the importance of websites as tools of access to resources held in the libraries are concerned. In that respect, the discussants from the UoN, KU and EU indicated that their libraries had their own websites. At MU, the website was being upgraded and in addition, the OPAC was being converted into a system that would allow web-based user services as earlier mentioned. At EU, the discussants reported that the campus provided access to resources through the local-area-networked computers. They also indicated that users could request information searching by e-mail from the Librarian or visit the campus and use any computer laboratory to access resources. Tutorials on how to access the resources were available on the university library's website. Most libraries indicated that using the e-resources require authentication and authorisation, which in turn requires that on registration, users are provided with user IDs and passwords. The UoN group reported that their users were required to register with the library to gain full access rights to e-resources. Users use electronic identity or smart cards to access electronic resources at KU and MU campuses. At EU, passwords were issued for OARE, HINARI and AGORA while the rest of the electronic resources were accessed through the Internet.

The UoN, MU and KU focus groups said that users need not come to the university since they can access the library from outside the university where the campuses were interconnected by a proxy server. However, users had to visit the university library in case there are problems accessing the system from off-campus points. At the UoN, all users have to present themselves during orientation and registration while at the EU the electronic resources and databases are used within the campus as the systems at the time of discussion were not accessible beyond the LAN.

On the document delivery procedures, discussants at the UoN commented that photocopying and scanning of requested pages was done and copies sent to the users by courier services or by e-mail. Similarly, e-mail attachments were also common at KU and MU. In contrast, respondents from all the public universities said that users were encouraged to collect materials from the library by themselves.

The discussants were further prodded on how the students requestedresources; all the groups said that the students physically visit their libraries, call, or send e-mails to the designated librarian. The UoN focus group further said that the librarians used web help link on the library web page which users can use to send their requests. Any support service has its challenges and to these the discussants submitted that power failure, slow Internet, inadequate computers in the library, unmanageable user numbers against a shrinking staff base and lack of IT trained personnel were key challenges faced by the discussants from UoN, while lack of IT specialists was a major limitation at KU. The discussants at MU identified lack of connectivity in some areas, limited resources, and increased enrolment of school based learners. On the part of EU, delays in document delivery due to lack of follow-up by the users on their requests and poor connectivity were cited as major challenges.

3.2.2 Information resources for remote users

To provide support services to remote users, a library must have the appropriate resources. In that regard, several questions were posed to identify the available resources. Discussants identified the following as the available information resources: print and electronic books; PERii e-resources; full-text journal databases; and CD-ROMs. In addition, the UoN has micro-fiche films while the EU discussion group reported that they also have the Essential Electronic Agriculture Library (TEEAL) online database.

The issue of the tools used to access various resources identified above was also addressed. When a question was posed regarding the type of tools that remote users use to access the resources, participating discussion groups' comments showed that users made use of all or any of the following methods: forms on the library link on the institutional website, personal visits to the library, the library OPAC, and e-mails sent to the librarians. Feedback forms were not fully exploited as only the UoN discussion group indicated that students used the tool to access resources.

A question was posed to the groups about the most commonly requested resources. The UoN discussants indicated that most users requested online journal articles. However, KU discussants were not sure about the type of resources that are commonly requested by users, as the exact meaning of the concept of remote users was not very clear to them. On the question of whether or not the libraries kept the statistics of requests placed by remote users, the discussants indicated that their libraries did not keep statistics at the time of the discussion. On the question of what resources were in heavy demand, discussions revealed that postgraduate students would normally seek current journal articles in areas of interest.

3.2.3 Staff available to serve remote users

The human resource is critical to any undertaking. The need to have adequate qualified staff was seen to be of concern for effective remote user support services. When the discussants at the UON were asked whether they had adequate staff to handle services for remote users, they said that the remote users were served alongside the other users and added that the number of staff members that are available to serve users was inadequate to provide specialised services to special groups of users such as remote users. At KU, the human resource was not adequate to serve both remote and internal users. Generally, the discussants revealed that there was inadequate staff responsible for effective service delivery despite the continued increase in the number of users.

A question was posed on the qualifications required of the staff serving remote users. To this question, the discussants indicated that all staff providing information service in the library required a minimum certificate level. In addition, the discussants were categorical that knowledge of ICTs and their usage was essential for staff to manage ICT related operations.

3.3 Physical facilities for remote user services

When the researcher sought to information on the facilities that support remote user services in the libraries under investigation, the discussants indicated that their libraries had computers with Internet connection. Computers were also available in other buildings on the university campuses. Furthermore, the UoN, KU and MU have intranet connecting the constituent campuses, which enable remote users to access the OPAC and e-resources. All the discussants revealed that the libraries had printers, scanners, and fixed telephone lines. Of particular importance in terms of the latter facilities and in their relation to serving remote users, the scanners and fixed telephone lines are the most commonly used. Students received scanned documents from library workers as well as call in to request assistance.

On the question of whether the facilities were adequate, all the discussants indicated that the facilities were inadequate. However, discussants felt that improvement of the wireless technology would be more helpful in dealing with the inadequacy. One commentator said thus: "… given that the y-generation has access to laptops, cell phones or Portable Data Accessories (PDA) such as smart phones, the users can get information from the convenience of their space".

At MU, the discussants said that an independent library server was a pre-requisite for effective support of the library services. When the question was posed on the availability of an independent server, all the focus groups confirmed that their libraries had servers which enabled their users to access e-resources. On the question of capacity of the server to handle the queries submitted by users, only the EU discussants provided the memory size of the server (that is, 32GB RAM module server). The others did not mention the memory of their library servers due to the fact they may be sharing with the rest of the ICT infrastructure and did not have one that was specifically serving the library service.

When the discussants were asked whether they received support for remote users from other players, discussants at the UoN said that their support came from the department of open and distant education and departments which run school-based programmes, which take place only when the regular academic programmes are in recess. At KU, the informants said that they provide document delivery support services to users who cannot come to the library due to the nature of their programmes from the open and distance learning (ODEL) departments, while MU and EU received support from ODEL and the College of Education.

3.4 Creation of awareness of services and information resources to remote users

When discussants were asked how they created awareness of library services and resources to the remote users, they gave different answers, just as was the case in the previous questions. The UON discussants said that their library used class-based lessons, library user guides, brochures and e-mails to inform users of new products. KU indicated that they used the University website to market new information to users as well as the office of the ODEL to pass on the information to users. MU markets their services through the Campus librarians, who in turn inform their users through such avenues as annual conferences, which are commonly used to promote library and information services. EU said that they organise a training session every Friday on the use of e-resources, wherein one of the activities is to alert the users about the services and products available in the library for them.

In regard to the specific tools used to market library services and resources to remote users, the UoN discussants indicated that they use library guides, the OPAC, new books displays, and exhibitions, while KU used the library website and institutional bulletin to inform and update users on the faculties of the services available in the library. MU uses brochures and the website to announce new items on the library services while EU uses the university notice board to announce training for users on new services and products.

A question on what tools were most effective in marketing library services was posed the discussants. The discussants at the UoN said that the OPAC could do better on condition that the Internet connectivity was up to standard and campuses and colleges were internetworked, while KU, MU and EU groups said that all the tools mentioned above to some extent were effective. All groups concurred that library guides and brochures provided to users on registration as takeaway reference materials were effective. The website also was very effective as users could login from anywhere and gain access to sources of information. The discussants at the UoN and KU also suggested other tools such as electronic media and radio shows as well as exhibitions and public talks which can be organised in conjunction with other faculties and departments within the university and its campuses as alternative ways to market services to remote users. MU, on the other hand, posited that the use of radio advertisements and book talk shows would help reach more people. Finally, EU indicated that forums like the Commission of Higher Education (CHE) exhibitions for all Kenyan universities which take place once a year in all counties on a rotational basis, and deans and senate committee meetings would be vital in marketing and promoting library services.

3.5 Policies and procedures for remote user services

Discussants were asked whether there were written policies on remote user services and resources, to which question the UoN discussants indicated that they have policies which generally govern access to resources, membership and ICT policy, but none of the policies specifically addresses remote users. KU, MU, and EU said they did not have policies for remote users.

The study also sought to establish whether resources and services were updated regularly and all the groups answered in the affirmative. All the discussion group members indicated that as members of the Kenya Library and Information Services Consortium (KLISC), they renewed their subscription to PERii-based resources on a regular basis as required. In respect to the OPAC, all groups said that the catalogue was updated as regularly as possible. When they were asked how their libraries monitored and evaluated user satisfaction, the discussants said that they used suggestion boxes. They also said that they used customer satisfaction questionnaires.

In order to determine whether or not there existed proper procedures to handle user requests, the discussants were asked about the procedures followed when a user submits a request to the library, to which question the UoN reported that users would normally send their queries through the online help desk, either to the circulation librarian or the ICT librarian who reviews the requests and responds accordingly. KU and MU groups said that the ICT librarian receives the requests and forwards them to the relevant information desk while the EU group said that the requests are directed to the Reference and Reader Service librarians.

On the question on how the remote users' requests were administered within the library, the UoN discussants said that a search is conducted using different access tools within the library. In the case of searches on print sources, the information is then scanned or photocopied and forwarded to the user by e-mail or by courier services.

4. Conclusions and recommendations

Although the participants initially indicated that they do not serve remote users, it was later realised that the concept 'remote users' was not well understood by the discussants, as upon clarifying the concept, they were able to discuss the issues raised in the interview schedule. The librarians' lack of understanding of the concept was attributed to the fact that, for a long time, they have served on-campus students. In fact, all the universities surveyed in this study were contact institutions.

In terms of the services that are available for remote users in public university libraries in Kenya, it was observed that there exist a variety of services, which include book reservation, online loan renewal, online reference service and online delivery of information resources. Other services included the Online Public Access Catalogues (OPACs), electronic access to e-resources, which are accessed through passwords and electronic identity cards. These services have made it easier for users to access information sources that libraries subscribe to. As technology changes, there have been changes in the provision of OPAC services in other countries such as South Africa. For instance, the University of South Africa has reconfigured and customised the OPAC to be accessed through mobile electronic devices such as mobile smart phones and tablets (Raubenheimer 2012). Many libraries in Africa and particularly those investigated in this study should follow suit and enhance the accessibility of their services for off-campus students. It is illustrative that the librarians indicated that students sometimes visit the libraries to collect their orders, which were placed through online means. It follows

therefore that there still exists a preference for traditional methods of service delivery, perhaps due to the lack of appropriate technologies to execute the online orders or lack of funds to purchase the ICTs (Haliso 2011).

The resources available for users were identified as follows: print and electronic books; PERii e-resources; full-text journal databases; and CD-ROMs. Microfiche films were also identified as being among the resources that can be accessed by remote users. However, this type of library material is no longer desirable to users who are increasingly becoming interested in e-resources downloadable from the Internet (Okello-Obura and Ikoja-Odongo 2010; Joshi and Nikose n.d.; Kacherki and Thombare, 2010). These resources were accessed by users through request forms available on the institutional websites, personal visits to the library, the library OPAC, and e-mails as well as feedback forms. Apparently, users employ almost all forms of electronic communication to get in touch with the libraries. Some of the communication tools missing from the list are fax, mobile phones (call-ins), land line telephones, and telegraph, although the latter two are seldom in use. The missing tools are seldom used, as most of the resources require online attention on the part of the users. Furthermore, some of the missing tools are no longer desirable while some of them have long ceased to exist.

In terms of the personnel available to assist remote users, it was noted that there are no staff members dedicated to serve remote users only. It is the same personnel employed to serve all users in the library that serve remote users. As expected, the libraries do not have a specialised office or officers to deal with issues of remote use of library resources. Perhaps, this aspect should be looked into and implemented in the libraries so that the ever-increasing number of remote users can be served effectively and efficiently. The libraries might also want to re-train their personnel who will be specifically stationed to serve remote users. The training can focus on communication, ethics associated with online communication, document delivery and sharing through the use of ICTs, sharing or circulation services associated with e-resources (including e-books, e-journals, etc.), trouble-shooting online service delivery systems, collection development for remote access, copyright, understanding the information needs of remote users, technologies for remote users, remote access and course management software, social networks and Web 2.0 technologies, mobile technologies, and virtual libraries, among others (see Fulkerson 2012).

As mentioned in Section 3.3, there are a number of physical facilities that libraries can and use to serve library remote users. These include computers, printers, scanners, and fixed telephone lines. It was also notable that the libraries do have Internet connectivity, which has continued to draw unprecedented interest in the whole world. As of 30 June 2016, the Interworldstats.com[3] reported that there were a total of 3.68 billion Internet users in the world, accounting for 50.1% of the world's total population of 7.34 billion. It is worth mentioning that Africa has continued to experience the highest growth rate in terms of Internet penetration. For instance, the region had the highest growth rate of 2,988.4% between 2000 and 2011. With the emergence of multipurpose ICTs (e.g. smart phones and iPads), libraries will be faced with complex challenges on how to serve their clients. Already, some university libraries such as the University of South Africa (Unisa) library have implemented what they have called AirPAC, a wireless catalogue which gives users access to the library's catalogue and documents via their cellphones (UNISA 2010).

Finally, in regard to the means that libraries use to create awareness about the library services for remote users, university libraries in Kenya are using a handful of methods and tools. These include class-based lessons, library user guides, brochures and e-mails, university website, campus librarians, annual conferences, training sessions, library guides, the OPAC, new books displays, and exhibitions, institutional bulletins, and university notice boards. It is illustrative that the libraries have not taken advantage of the Internet's features and applications to market their library services and resources. For instance, despite the fact that social networking sites are the most commonly visited sites on the Internet by users (Onyancha 2012), none of the universities indicated that they have made or do make use of them to create awareness of the services and resources. It is important that the libraries assess information needs and seeking behavior of their clients and formulate appropriate guidelines/policies for marketing or creating awareness about their services and resources through the most commonly used ICTs by their users.

In conclusion, the introduction of flexible learning models in public universities in Kenya is impacting on library services in ways that call for redesigning policies and service delivery processes to ensure accessibility and use of their resources. Ocholla, Mutsvunguma & Hadebe (2016) have reiterated the call for libraries to consider innovative ways, products, facilities and services to serve their clients in what the authors call the 'rapidly-changing academic environment'. Feeney (2004) proposes the development of a website (and similar tools) that centralises information about library services and resources for remote users. The services would include, among others, online orientation, research guides, chat reference and document delivery (Feeney 2004: 129). However, in their article titled *making the invisible visible: personas and mental models of distance education library users,* Lewis & Contrino (2016: 15) advise that libraries should take into

3. *http://www.internetworldstats.com/stats.htm*

consideration the users' research habits and challenges when designing digital learning objects and the library website to avoid adverse user experiences. It is worth noting that the libraries' reliance on serving users over the counter is likely to phase out in the future as library users are increasingly relying on accessing library services remotely (Baikady, Jessy & Bhat 2014). The emergence of remote users desiring to access libraries through remote means has had and will continue to have far-reaching effects on everyday practices of libraries as well as on librarianship as a profession. The proliferation of diverse information and communication technologies and more particularly social media technologies (Burkhardt 2010; Collins & Quan-Haase 2012; Collins & Quan-Haase 2014) will exacerbate remote access of library services and information resources in academic libraries in Kenya.. While routine tasks have been removed, additional work in running the online or virtual systems is necessary. Processing, implementing and running systems have meant that librarians need to develop appropriate policies and infrastructure that ensures equitable access to information services and resources for their users, especially where remote users are concerned.

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Maximising the potential of social media to deliver academic library services to students: a case study of The Technical University Of Kenya Library

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Abstract

This study investigated how academic libraries in Kenya can maximise the potential of social media to deliver their services. The objectives of the study were to identify the various forms of social media utilised in academic libraries; explain how these social media are used to support the delivery of library services; ascertain the benefits academic libraries accrue from the use of social media; identify the challenges which hamper effective use of social media in academic libraries; and propose strategies which the academic libraries can employ to enhance the outcomes of their social media use. This research was a case study of The Technical University of Kenya library in Nairobi, Kenya. Primary data was collected from 23 knowledge ambassadors, who are student library champions, and three librarians selected through information-oriented purposive sampling. The findings revealed that academic libraries in Kenya are currently using Facebook, WhatsApp, YouTube and Twitter to facilitate the sharing of information resources, provision of reference services, formation of professional networks, and promotion of library services. The findings also indicate that the use of social media in academic libraries in Kenya has enhanced interactions between librarians and library users; saved the time for searching, accessing and using information; reduced costs associated with space; and enhanced the promotion of library services and products. Nonetheless, lack of adequate ICT infrastructure and human resources are hampering the effective adoption of social media in the libraries. Academic libraries in Kenya are advised to invest more resources in infrastructural development, capacity building and hiring of more staff to enhance their social media use outcomes. The findings of this study may be used by academic librarians to apply social media in the design and delivery of information services and products effectively.

Keywords: Academic libraries, Kenya, The Technical University of Kenya library, social media, social media marketing

Introduction

The origin of the term 'social media' is fuzzy, with many people claiming to have coined it. However, there seems to be a consensus that the term originated from America Online (AOL) in the early 1990s around the time the company developed Instant Messenger which enabled registered users to communicate in real time (Bercovici 2010). Broadly defined, the term refers to any online platform or channel which disseminates user generated content and facilitates extensive user participation (Kwanya & Stilwell 2015). Social media can also be perceived as any Internet-based or mobile application used for the purpose of collaboration; in which the participants can connect, create, comment, view, share, rate, discover, profile or exchange user-generated content (Bradley & McDonald 2011). Cook and Hopkins (2006) explain that Web 2.0, social networking, and social media are indistinguishably bound and have often been synonymously used. Social media also encompass social relations amongst individuals using social networking platforms (Wellman 2001).

Kwanya and Stilwell (2015) citing Safko (2010) explain that, simply put, social media is the media humans use to be social. Thus social media embodies how humans use emerging technologies to effectively reach out and connect to other human beings, create a relationship, build trust and be there for one another. The social media phenomenon represents a major shift in communication as it flattens the world and brings people together to be friends, interact or transact (Kwanya & Stilwell 2015). The strength of social media channels lies in the fact that social conversation is one of the most powerful communications in this generation. This explains why social media tools and techniques are remarkably and permanently changing the way information is created and passed across societies and around the world. Indeed, statistics from Nielsen (2012) acknowledge that many people now spend more time on social media than on the other media categories; time spent on social media continues to increase exponentially; social media interactions have overtaken

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pornography as the most prominent activity on the Internet; one of every eight spouses in the United States first met on social media while one of every five divorce cases have been blamed on social media. These scenarios demonstrate that social media continue to have a considerable impact on personal and professional relationships and in some cases have raised ethical and legal issues relating to information management and use (Curtis 2013).

It is no surprise therefore that social media have changed the way organisations work. The field of Library Science is no exception. Social media applications in the Web 2.0 world not only enhance the practical usability of libraries but also help librarians to add value to their services. Although diverse social networking tools are increasingly being used by individuals of all ages, they are especially popular among young people and college students. Due to this popularity, many academic librarians use these new platforms to reach out to the student population who are their main users (Mathews 2006; Farkas 2007a; Milstein 2009). Social networking by academic librarians enables them to connect with the user community directly (Farkas 2007b; Du Toit & Mulatiningsih 2013). For example, Facebook groups can be created and used as a platform for communicating and marketing library services to users and non-users (Mathews 2007). Chan (2011) asserts that social media such as Facebook allow tracking of the performance of an advertisement in greater detail than in the other media. Jacobson (2011) also noted that Facebook is an efficacious tool for library announcements and marketing. Apart from Facebook, Milstein (2009) argues that Twitter can also serve as a platform for information exchange by librarians. Therefore, she encourages librarians to use Twitter to enhance their conversations with colleagues and library users.

Social media tools provide libraries with the ability to engage with users in multi-directional communication and information sharing on a wide range of library-related issues; promote library resources and services; and extend services beyond the physical boundaries of library buildings by taking services directly to the users. Moreover, these tools can enable libraries to reach out to a larger number of users; attract new potential users to use library resources and services; as well as deliver improved patron-driven services (Casey & Savastinuk 2006). Often, these can be attained at little or no expense (Redden 2010). Thus, social media have had an impact on personal and professional relationships; culture and society; economics and commerce; empowerment of the masses; as well as creation, use and sharing of new knowledge.

Contextualisation of study

Kiilu and Otike (2016) aver that there is a steady decline in the usage of academic libraries in Kenya as the number of non-users increases. They explain that one of the main reasons for the increasing non-use of academic libraries in Kenya is the lack of awareness of the information services and products available in these libraries amongst their actual and potential users. The findings of Kiilu and Otike (2016) corroborate those of Kavulya (2004), who concluded that the potential users of academic libraries in Kenya are increasingly turning to the alternative sources of information exemplified by the Internet.

Given the growing competition amongst the 70 universities and university colleges in Kenya (CUE 2016) for students and resources, non-use of academic libraries is a serious matter because the institutions are striving to optimise the use of their resources. This competition has become even more serious in the recent past with the sharp decline in the number of high school students qualifying for university admission in the 2016 national examinations. Therefore, most academic institutions in Kenya will not be able to fill all the spaces available in their academic programmes. This ultimately means fewer resources in terms of direct fees and funding from the government and other sources. Therefore, the pressure on academic libraries to demonstrate a positive return on investment by their parent institutions is immense. Thus, the need to enhance the delivery of library services and products is acute. Most academic libraries are now exploring all possible opportunities to maximise their outreach and engagement with their actual and potential users. Social media offer a great potential for this. However, information on their use to promote and deliver academic library services and products in Kenya is scanty.

Purpose of the study

The purpose of this study was to explore the potential social media hold for enhancing the delivery of services by academic libraries in Kenya as well as how to maximise this potential. The specific objectives were to identify the various forms of social media utilised in academic libraries in Kenya; explain how these social media are used to support the delivery of library services; ascertain the benefits academic libraries accrue from the use of social media; assess the challenges hampering the effective use of social media in academic libraries; and propose strategies which the academic libraries can employ to enhance the impact of their social media use.

This study is part of the ongoing dialogue about how best libraries can utilise emerging technologies to complement their services and minimise the competition between these platforms and library spaces. Given that most actual and potential library users are already on social media platforms, it would be foolhardy for librarians to attempt to draw them

back to the libraries by isolating social media. Therefore, it is prudent for progressive libraries to fit their services and products to the existing social media lifestyles of their user communities than force them to fit in the traditional library environments characterised by rigid rules and policies. To this extent, this study investigated a pertinent matter that all academic librarians must handle carefully to survive.

Methodology

This study was designed as a case study. This is a detailed examination of an individual case with an intention to getting knowledge of the whole (Yin 2013). The case study approach was chosen to generate sufficient in-depth information about the two critical variables of the study – social media and delivery of information services and products by academic libraries.

The case study used was The Technical University of Kenya library in Nairobi, Kenya. Primary data for the study was collected through face to face structured interviews with 23 knowledge ambassadors as representatives of the library user community. Knowledge ambassadors are student volunteers who are willing and excited to promote information services to their peers. The ambassadors act as knowledge champions, change agents, peer trainers as well as knowledge advocates and brokers. As volunteers, they perform these roles on a part-time basis. Furthermore, their influence is localised and generally restricted to their peer groups only. As the representatives of student groups, their responses reflected the views of the students under their influence. The researchers also interviewed three (3) of the 15 librarians to corroborate the views of the students. The three (3) librarians who included the Director of Library and Learning Resource Services, a reference librarian and a systems librarian, were selected using information-oriented purposive sampling. This sampling technique was chosen because it enabled the researchers to focus only on the respondents who have adequate information on the subject of the study. The researchers used two separate structured interview guides; one for the knowledge ambassadors and the other for the librarians. The collected data was analysed through content analysis.

Findings and discussions

This section presents and discusses the response rate attained by the study; social media tools used in academic libraries in Kenya; the current use of social media tools in academic libraries in Kenya; the benefits of social media use in academic libraries in Kenya; the challenges hampering the effective use of social media in academic libraries in Kenya; as well as the strategies which can be used to mitigate the identified challenges so as to maximise the benefits of social media use in academic libraries in Kenya.

Response rate

All the 23 knowledge ambassadors and three (3) librarians targeted by the study were interviewed successfully. This high response rate was achieved because the knowledge ambassadors are very active in promoting library services. Consequently, they are willing to contribute to any strategies, including research studies, which have a potential to enhance the suitability and reach of the services. The high response rate was also achieved because all the knowledge ambassadors were in session at the time data was collected. The ambassadors also have a tight network through which they encouraged each other to participate in the study. On the other hand, the librarians were interviewed at their convenience.

Social media tools used in academic libraries in Kenya

Table 1 Social media tools used by students in academic libraries (N=23)

Social Media Tools	Frequency	Percentage
Facebook	23	100
WhatsApp	18	78
YouTube	14	61
Twitter	12	52
Wikis	4	17
Instagram	4	17
Blogs	3	13

Source: Research Data

The responses from the students indicate that Facebook is the most popular social media platform used by academic libraries in Kenya; all the respondents stated that they are currently using it. The other popular social media tools include WhatsApp (78%); YouTube (61%); and Twitter (52%). The other tools which were mentioned by the students included

Wikis (17%); Instagram (17%) and Blogs (13%). Table 1 summarises these findings. The librarians, on the other hand, stated that the library currently has Facebook and Twitter accounts with 2,613 likes and 969 followers respectively. In terms of the general social media usage amongst the students, however, the librarians basically corroborated the views of the students.

These findings generally concur with those of Braziel (2009) that libraries use Blogs, Flickr, YouTube as well as social networking sites such as Facebook, iTunes and Twitter to offer different services. Similarly, other studies show that Facebook is the most popular social media tool used in libraries (Charnigo & Barnett-Ellis 2007; Graham, Faix & Hartman 2009). Besides the above, other studies have also confirmed that Facebook is the most popular social media tool amongst students (Stutzman 2006; Dwyer, Hiltz & Passerini 2007). In interpreting these findings, the researchers are of the view that the factors which influence the popularity of Facebook may include its features which enable the students to share multimedia files; keep abreast with the activities of their friends; create specialised communities for diverse interests; organise and promote events; as well as share memorable moments. Facebook may also be popular because it is one of the social media tools which has been in use longest, having been launched in 2004. Furthermore, its origin as a social platform for students at Massachusetts Institute of Technology (MIT) may have continued to endear it to students globally. The researchers also hold the view that the popularity of WhatsApp could be riding on the fact that it is largely mobile-based and free on most data networks in Kenya. YouTube's popularity may be anchored on its visual appeal and the fact that its files can be shared on the other platforms while Twitter's popularity may be growing because it is free on most data networks in Kenya; used for breaking news fast; and easy to compile and/or read given the text limit of 140 characters.

From the foregoing, it is clear that academic libraries can meaningfully use the social media platforms that their users are already acquainted with. Unfortunately, social media change relatively fast. Librarians must continually employ market intelligence mechanisms to identify the trending technologies; assess their suitability; and deploy them as a means of staying relevant to their users. It is unlikely that academic libraries will stop using social media tools in the near future. Conversely, their presence in social media is not only likely to be widened, it will also be deepened to enable better collaboration between/among users and librarians in creating and sustaining an environment which is conducive for effective knowledge creation and sharing in university communities.

The researchers are also of the view that the growing popularity of social media in academic libraries may be driven by the changing information seeking behaviour of the younger generation of library users who are the majority of the academic library users. They are technology-savvy; rely on their peers as information sources and referrers; intolerant to delay and are willing to use any available information as long as it is easy to find regardless of its credibility; easily bored hence the drive towards infotainment; multi-task; and constantly connected to the Internet which they glorify as the source of all knowledge (Kwanya 2016). Progressive libraries cannot ignore these trends.

Current use of social media in academic libraries in Kenya

The respondents indicated that social media platforms are currently being used to support the design and delivery of library services by enhancing scholarly communication; sharing of resources; providing reference services; disseminating news and information; formation of professional networks; interactive discussions on library resources and services; personal communication; training of users; promotion of services; and soliciting of user feedback on the performance of the library. The findings are summarised in Figure 1.

These findings indicate that social media have permeated almost all activities in academic libraries in Kenya. Nonetheless, acquisition and processing of information resources does not seem to have integrated social media. According to the interviewed librarians, this apparent omission is attributable to the fact that most librarians find it difficult to cede control of the bibliographic processes and tools to the users. Therefore, it is unlikely that academic librarians in Kenya would involve the users in cataloguing or classifying information resources. The librarians further explained that they cannot allow the users to contribute to or modify catalogue entries because they lack the competencies to do so. This is a logical explanation. However, the researchers are of the view that academic libraries may in future have to involve their users in the processing of information resources through social activities like folksonomies (collaborative classification of digital content by users) and/or social bookmarking (collective organisation of bookmarks through online tagging). Since the users understand the organisation of knowledge in their areas of interest, they are, in some instances, better placed to advise the librarians on how best to present the information resources to their peers. Of course the librarians should not take the user advice blindly, but should subject it to vetting before deciding whether to apply it or not.

Another area that seems to have been left out in the application of social media in academic libraries is planning. Although some of the librarians said the libraries use social media to gauge the perception of the users of library services

and products, it was not possible to ascertain the degree of involvement of the users in the development of strategic plans. It was also not possible to confirm the extent to which the librarians acted on or implemented the comments of the users. It is therefore evident that academic libraries in Kenya have not used social media effectively to deepen collaboration between the librarians and users in strategic activities such as planning and decision-making. This is a major weakness because the perspectives of the users should be integrated in all spheres of library activities and social media offer a great opportunity for this. Again, the involvement of users in library planning and decision-making wins their goodwill and support towards library programmes which in turn yields better outcomes.

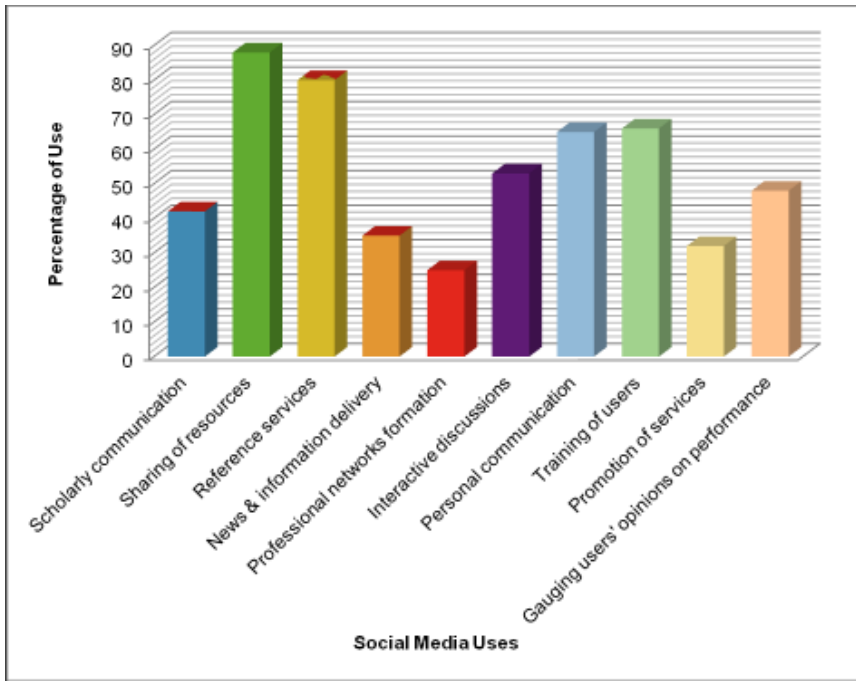

Figure 1: Current uses of social media in academic libraries

It is clear from the findings that social media have become critical tools in academic libraries in spite of the weaknesses identified above. Therefore, library users and librarians need to take these tools seriously. One of the ways of achieving better social media involvement is to become proficient in these tools so as to ensure their effective use. Besides, Ezeani (2010) suggested that librarians need to be flexible to effectively deploy these social media tools for use in academic libraries and consequently be able to match patrons with their desired information.

Benefits of social media use by academic libraries in Kenya

The respondents were asked to state the benefits the library has received from social media usage. Table 2 below summarises the responses of both the librarians and students. The findings indicate that the greatest (65%) benefit academic libraries in Kenya accrue from using social media is enhanced interaction between and amongst different segments of the library community. This finding emphasises the fact that social media are essentially about interactions which are becoming important even in other spheres of life. In politics, for instance, the concept of citizen participation is becoming prominent in most democracies. In academic libraries, the users wish to play a pivotal part in the decision-making process. They also wish to contribute, remix or share content. All these wishes are largely possible through effective interactions which social media facilitate.

Another important benefit from the findings is cost reduction in terms of time and space. Delivery of library services through social media reduces the time users apply to access the services. This is achieved because social media enable fast

transmission and access of information – basically at the click of a button. Cost savings related to space are achieved through both digitisation and digitalisation. Digital information resources and services are stored or delivered in digital spaces which are more affordable and available anytime, anywhere compared to hardcopy resources or physical services. These spaces, currently exemplified by big data and cloud computing, are defined by access rather than ownership of the infrastructure. This further reduces the costs associated with their usage as opposed to the conventional systems. Reduction of costs is an important matter for academic libraries in developing countries which perennially face budget cuts and general underfunding. By facilitating cost reduction, social media are strengthening the libraries' capacity to thrive and survive against the challenges associated with inadequate funding.

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Table 2 Benefits of using social media in academic libraries (N=26)

Benefits of Social Media	Frequency	% Response
Enhancing interaction	17	65
Saving of time	14	54
Economy of space	14	54
Marketing library resources	12	46
Individuality and self-expression	7	27
Strengthening interpersonal relationships	3	12

Source: Research Data

It is important to note that only a minority (46%) of the respondents indicated that libraries have used social media to market their services. This seems to imply that academic libraries in Kenya do not consider marketing as an important activity. This attitude is perhaps informed by the notion that the value of libraries is obvious in academic settings. Therefore, they seem to believe that they do not need to market libraries since the users will be forced by circumstances such as assignments or examinations to come to the library. This notion needs to change because currently, there are alternative sources of information and academic libraries are neither the only or first sources of information available to academic communities. It is imperative that academic libraries should market their services and products. This finding underscores the fact that most academic libraries have not maximised the potential of social media to market their services in Kenya. This should change. The researchers encourage academic librarians to develop suitable strategies to strengthen the use of social media to market their services and resources.

The role of social media in facilitating enhanced access to and use of academic library services has been emphasised by several researchers. Khan and Bhatti (2012) conducted a survey of academic libraries in Pakistan and concluded that the libraries can use social media to capture the attention of library users and to facilitate better access to and use of library services. Ayia and Kumah (2011) also acknowledged that social media facilitate collaboration and promote effective communication amongst the librarians and between them and their users leading to effective knowledge creation, sharing and learning. Wasike (2013) also argued that social media tools are helpful in offering wider channels of communication through which library users are able to share scholarly information with minimal effort and cost while Hendrix and Zafron (2009) stated that the tools facilitate the marketing of services by pushing out announcements to users for promotional purposes. Tise (2009) also explained that social media facilitate better access to information thus enabling new knowledge to be created and shared amongst library users and beyond. On their part, Kim and Abbas (2010) averred that implementing social media presence is an important determinant to remaining relevant and meeting the expectations of the digital users of academic libraries.

Challenges hampering the effective use of social media in academic libraries in Kenya

Figure 2 provides a list of challenges identified by the participants. The major challenge academic libraries in Kenya face in their efforts to apply social media tools is inadequate ICT infrastructure exemplified by poor Internet connectivity. Although most social media are simple and lightweight, they still need a reliable Internet access to work. Academic libraries will not accrue optimal value from social media until they provide the essential levels of Internet access. It is noteworthy that The Technical University of Kenya has several WiFi hotspots on campus but the Internet up-time is still intermittent and unreliable. Even when the students use their own devices such as smart phones or Internet dongles, they cannot access library services or resources hosted on university web servers when the university Internet is down. All the respondents acknowledged progress that has been made in terms of expanding the university Internet bandwidth as well as increasing the number of points of access to it. However, they explained that the university needs to make more effort to provide a stable broadband Internet access in the main campus and student hostels. The respondents further observed

that, unlike the situation in other public universities in Kenya, electricity was not a major challenge because the university has a stable connection and a standby generator in case of outages.

Another major challenge identified by the respondents was lack of human resources to effectively deploy and manage social media platforms. Two issues emerged in this regard. 1) The number of staff in the library, at 15 only, was quite low compared to the number of students as well as the wide array of services deployed by the library. It was evident that the librarians are already overburdened and would not be in a position to take more responsibilities in supporting the effective use of social media. 2) Only a few staff had the requisite ICT skills to deploy or manage the social media platforms. Staff adequacy in terms of the numbers and competencies is essential in effectively implementing social media projects in academic libraries in Kenya.

Lack of acceptance of social media as valuable tools for information service delivery was another challenge. This notion emanates from the feeling that social media tools are informal and unregulated making them to be less popular with the conservative academic library users and librarians. Nonetheless, all the respondents acknowledged that the level of acceptance of social media as important tools of information service design and delivery is increasing. It is expected, therefore, that the degree of application of social media in academic libraries will increase in the near future proportionally to their level of acceptance.

Restrictive policies on the use of social media also affected their effective adoption by academic libraries. The respondents observed that academic libraries in Kenya originally prohibited the use of social media on library ICT systems. This was informed by the belief that social media waste the users' time. This belief is changing with the greater appreciation of these tools. Nonetheless, there is still a problem especially because the university blocks some social media sites from its network. This is an impediment to their access and use by the students and librarians.

These findings generally concur with Ezeani and Igwesi (2012) who concluded that lack of awareness, bandwidth constrains, lack of training of staff, and technophobia, are some of the challenges hampering the effective use of social media.

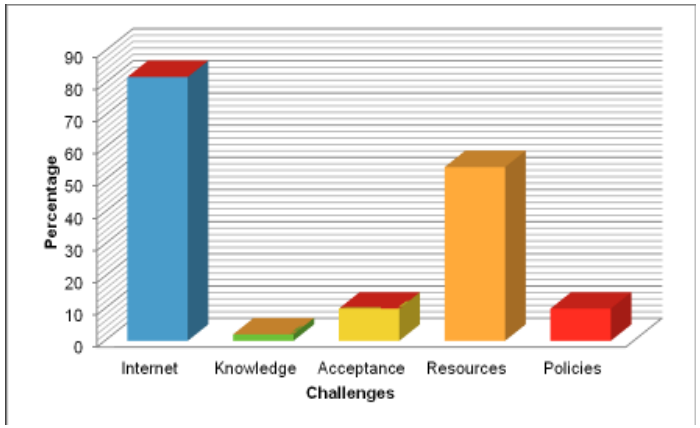

Figure 2: Challenges academic libraries face with social media use

Strategies to mitigate the challenges

The respondents suggested a number of strategies to mitigate the challenges currently hampering the effective use of social media in academic libraries in Kenya. The suggestions are presented in Table 3.

Table 3 Strategies to mitigate social media use challenges (N=26)

Strategy	Frequency	% Response
The library should organise capacity development programmes on social media tools regularly for both students and faculty to enhance their proficiency in the use of social media. They suggested further that such programmes should not only focus on the technical aspects of social media use but should also encompass ethical elements as well. The respondents suggested that this should be implemented immediately.	14	54%
The university should increase the number of library staff to reduce individual workload thereby freeing some time for social media projects in the library. They also suggested that one of the qualifying criteria for the new staff should be social media skills. This would reduce the university's expenses in training the new employees as well as the time used for planning and implementing social media projects. This should also be implemented immediately.	12	46%
The university should invest more resources in developing essential ICT infrastructure including broadband Internet access, latest servers, computer workstations for library users, increased number of WiFi hotspots on campus and in student hostels, as well as power sockets in the library. This should be implemented incrementally in the medium term.	11	42%
The library should develop a curriculum on information and learning technologies which should include social media. This course should be taught to all first year undergraduate students as part of their library orientation and information literacy programme. This should be implemented in the medium term.	7	27%
The librarians should monitor the content on Facebook and other social media deployed by the library on a daily basis to ensure that all questions, comments and other arising issues are dealt with. This strategy will enable the library to handle any negative information promptly. It is also advised that the librarians should not just delete all negative issues raised but deal with them professionally. This suggestion should be implemented immediately.	5	19%
The librarians should create awareness about the existence of social media tools among the library users through workshops by using train-the-trainers technique and peer to peer learning approach as well as providing online tutorials on the use of social media. This should be implemented immediately.	3	12%
The libraries should conduct regular studies on users' information needs and seeking behaviour to provide contextual information which is necessary for the effective adoption and use of social media technology in the academic libraries. They should not just introduce social media tools casually. Every decision to adopt or not should be informed by relevant user studies.	2	8%

Source: Research data

Conclusion

Academic libraries in Kenya are currently using Facebook, WhatsApp, YouTube and Twitter to facilitate sharing of information resources, provision of reference services, formation of professional networks, and promotion of library services. The use of social media in academic libraries in Kenya has enhanced interactions between librarians and library users; saved the time used for searching, accessing and using information; reduced costs associated with space requirements; and enhanced the promotion of library services and products. Nonetheless, lack of adequate ICT infrastructure and human resources are hampering the effective adoption of social media in the libraries. Therefore, the academic libraries in Kenya are advised to invest more resources in infrastructural development, capacity building and hiring of more staff to enhance their social media use outcomes. The institutions providing training in the library and information science disciplines in Kenya and elsewhere are also encouraged to integrate social media courses in their programmes so as to equip their graduates with the essential skills to effectively manage social media in libraries. The findings of this study may be used by academic librarians to apply social media in the design and delivery of information services and products effectively. However, more research is needed to investigate the perceptions and use of social media by academic staff; the social media uptake and use in academic libraries in Kenya and other countries; the adoption and use of social media by students and staff from different faculties or disciplines; as well as the legal and ethical implications of social media adoption and use in academic libraries in Kenya.

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Challenges of the implementation of language policies in southern Africa: what is the way forward?

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Abstract

At the attainment of independence, most African governments adopted the colonisers' foreign languages as official languages to be used in business, the judiciary, education, local government and parliament. Examples of foreign languages that have dominated local languages in Africa are English, French and Portuguese. This paper argues that indigenous languages in Southern Africa, which is the focus of the survey, have low variety status vis-à-vis foreign languages for a variety of reasons, the major being the challenges faced in the implementation of the language policies in these countries. While the survey found that there are language policies in the country studied, it can be concluded that having a language policy in place is not congruent to its implementation and its desired effects. The study recommends adopting the Tanzanian language policy model that formalised Swahili as a national language for all purposes. To all intents and purposes, the Swahili model has been a resounding success.

Keywords: Linguistics, language policy, Southern Africa

Introduction

For the past decades, conferences have been held on issues surrounding the status of African languages, not only in southern Africa, but in Africa as a whole. One can cite, as examples, the UNESCO Intergovernmental Conference on Language Policies in Africa which was held in Harare, Zimbabwe, in 1997; the African Conference on the Integration of African Languages and Cultures into Education which was held in 2010 in Ougadougou, Berkina Faso; the Cape Town Language and Development conference held in South Africa in 2015; and the African Languages Association of Southern Africa (ALASA) conference held at the Namibia University of Science and Technology at the end of June in 2016. Imagining these and other deliberations and efforts on the African-languages question as battles, the major question this paper tries to answer is: are we as linguists and language practitioners with a keen interest in the preservation of African autochthonous languages losing the battles? Based on critical analyses of works on the language policies of the Southern African Development Community (SADC) countries, this paper discusses a number of challenges that affect the implementation of language policies in these countries. The major challenges the paper highlights include: the diglossic situations which perpetuate the supremacy of the language of colonisers at the expense of indigenous African languages; the neo-colonial elites who promote languages like English, French and Portuguese as languages that buttress their power, in most cases paying lip-service to the promotion of indigenous languages; the absence of strict monitoring of the implementation of language policies in domains like primary, secondary and tertiary education and training; the lack of support for the development of African languages from the private sector; the lack of interest in promoting the use of languages of minority groups which are faced with extinction; and the conundrum multilingual polities face in determining which indigenous languages have to be officialised as national languages and/or 'standard' languages. We argue that although the task seems to be insurmountable, linguists, language practitioners and other concerned entities have to step up the fight for our African languages which are the vehicles of our cultural identities, heritages and indigenous knowledge systems. In this fight, we need to respect multilingualism and linguistic diversity, guided by the fact that there is no language that is linguistically superior to another.

As a point of departure, we note that indigenous languages studied actually play second fiddle to foreign languages. *The Oxford Dictionary of English Idioms* (2010: 125) defines the idiom 'play second fiddle to' as 'to take a subordinate role to someone or something.' Applied to the language question and language policies discussed in this paper, one can conclude that indigenous African languages are given secondary roles in the SADC countries whose language policies were investigated. From the onset, let me categorically say that SADC linguists, language practitioners and researchers, and like-minded progressive forces should condemn situations in which indigenous African languages play secondary roles in our countries and that the situation should be redressed without further delay. In this spirit, this author published two articles titled "Development of indigenous languages needs strong support" and "Time for SADC to save indigenous

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African languages" in the *Windhoek Observer* (2015, 2016), an influential weekly newspaper in Namibia, hoping to stimulate debate on this sensitive topic. To the author's utter dismay, no response came to this effort, not even in the form of a letter to the editor. The absence of response suggested to the author that there is a lack of interest in linguistic matters in Namibia.

Equally disturbing, the dearth of interest in local languages seems to be widespread. In the research for this paper this author 'travelled' and 'sojourned' in SADC countries, not physically (except in Namibia), but spiritually and intellectually. The spirited academic journey left my heart and mind in tatters as the cruellest facts about the situations of indigenous languages that had previously been taken for granted or glossed over were discovered.

The political elite and language policies

The most painful thing that struck me was that the political elite in each of the countries studied have deliberately perpetuated the supremacy of foreign languages over indigenous languages. There is clear evidence that language and power are closely related and in this case the foreign language that was used to subjugate the local people and their languages is the most preferred language by the new governments. The socio-political environment created by the political elite has had a negative perception of the status of local languages against foreign language. In other words, the power that is exercised by the new rulers or elite is entrenched in the foreign language of the colonial master. To show how powerful a language is, Yiddish linguist Max Weinrich's remarked: "A language is a dialect with an army and a foreign policy". This statement is sometimes quoted as "A language is a dialect with an army and a navy[2]"

As has already been stated above, the common denominator of most sub-Saharan countries is the obvious choice of the former coloniser's language and that power is entrenched in the coloniser's language instead of indigenous languages. For example, according to Augusto (2012), there is overwhelming evidence backed by statistics in Angola that shows that although the official language the government chose at independence in 1975 was Portuguese, most Angolans living in non-urban areas did not speak or understand the language. The choice of Portuguese as the only official language and as the language of instruction in Angola was condemned by Fernandes and Ntondo (2002) who strongly argued that it was detrimental to the development of indigenous Bantu languages and Khoisan languages in the country. Similarly, the Mozambican language policy puts Portuguese as the official language showing a clear inheritance of the former coloniser's language. Portuguese has the prestige of having been selected for all official functions, including education, while the indigenous languages have the status of local 'minority' languages, thus playing little or no formal role at all in both countries.

English dominates as an official language in Zimbabwe, South Africa, Botswana, Zambia, Malawi, Lesotho, Swaziland and Namibia. Although English is the former coloniser's language in other countries, it was not a former coloniser's language in Namibia which used Afrikaans as an official language before independence. The choice of English as the official language offered a neutral lingua franca in a multilingual society in Namibia in which Afrikaans was viewed with suspicion by the new leadership mainly because it was the official language during the apartheid colonial rule. In the Democratic Republic of Congo, French dominates local languages like Kikongo, Lingala, Luba-Kasai and Congo Swahili. The DRC's indigenous languages can be classified into three distinct types: the Bantoid, the Adamawa-Ubangian and the Central Sudanic groups. In Mauritius and Seychelles French and English are the official languages despite the fact that the majority speak Creole. In sum, we see the perpetuation of a diglossic situation which treats foreign languages as High Varieties and indigenous languages as Low Varieties in education, the judiciary and government, and related spheres of the socio-economic and political contexts. Accoding to Wardhaugh (2006:94) 'Diglossia reinforces social distinctions. It is used to assert social position and to keep people in their place, particularly those at the lower end of the social hierarchy. Any move to extend the Low Variety . . . is likely to be perceived to be a direct threat to those who want to maintain traditional relationships and the existing power structure'.

So the diglossic situations created perpetuate the supremacy of the language of the coloniser or the foreign language. The inherited language enjoys the status of unifying and prestige in commonly multilingual societies typical of the majority of African countries at the expense of indigenous languages. We can summarise this scenario as follows: diglossic situations were created during the colonial periods; diglossic situations were extended at independence and still exist today; diglossic situations will continue into the future unless something drastic is put in place by our governments to stop this colossal monster that will devour our languages and cultures.

Coupled with the above, some language policies are so vague and inconsistent that upon implementation they themselves create challenges that negatively affect the implementation process. For instance, Mauritius lacks clarity as no language is legally recognised as official or national but the country shows a bias toward French and English at the expense

2. *https://www.theatlantic.com/international/archive/2016/01/...language-dialect/424704/.*

of Kreol, which is widely spoken. This vagueness leads to confusion and wide variation in languages of instruction across the country. In most Mauritian classrooms, a combination of Kreol, French and English is used, though for different purposes. Zambia is ambiguous and Malawi is mixed up as children with different national language backgrounds learn some subjects in multilingual contexts, as the books are written in Chichewa and the teachers' teaching guides are written in English. The policy is very silent about the language of assessment at these particular grades. Lesotho has its language policy labelled as ambiguous as the question of whose mother tongue the policy is referring to remains unanswered.

Inequality among indigenous languages

Some language policies in multilingual societies are accused of promoting inequality as the chosen language is elevated to an official language thereby relegating other national and minority languages to lower rungs of the social ranking as noted in Mauritius, Zimbabwe and Namibia. Societal norms have assigned roles to local languages as of low status, while English or other colonisers' languages are of a high status. In relation to this, Wright (2004) states that lax and non-interventionist policies promote the languages of power and prestige which will eventually take over in all situations of contact. Also social constructs in a way downgrade indigenous languages, a case of Seychelles where parents despise their own Creole, stating it to be not a proper language nor prestigious enough for education, thus opposing home language teaching. Namibia, though a different case, declared English as an official language despite the fact that it is not its former coloniser's language, but the virtue of the prestige attached to it, at the expense of numerous indigenous languages. In South Africa Ngcobo (2003:86) observes that "the language policy is objectively designed to maintain ethnic diversity and the politics of compromise." The politics of compromise that led to the formation of a democratic South Africa influenced the decision of making eleven languages the official languages of the country to be used at all levels. Although this is commendable, the dominance of English in most spheres in South Africa cannot be overlooked.

The influence of globalisation

From a global perspective, challenges include the pressures of globalisation and increased volumes of information in English via the Internet. In addition, there are many hurdles encountered in promoting bilingual and multilingual education and literacy, which include increasing the number of multicultural teachers, developing appropriate teaching materials and providing safe learning school environments for the intermixed nature of the population. There is also a need to develop programmes that are compatible with bilingualism and multilingualism, and in essence are relatively expensive. This however entails changing existing language policies in an effort to accommodate the indigenous languages. Generally, indigenous languages in Africa have failed to occupy a high status position even where they are officially recognised in the statutes. They have remained languages of informal business yet they are the languages of the majority (Makanda 2011).

Most African countries will find it difficult to come up with an official language policy document because any language policy will mean embracing the English language. The official acceptance of English as an ideal language for communication across peoples of multiple linguistic backgrounds in most African countries seems to be perceived as re-colonisation by Europe.

Unavailability of resources

Another major constraint on the implementation of the Language Policy is the unavailability of resources including human resources, funding, facilities, materials and books. This is a prevailing and common feature in the majority of the African countries that are still developing. With many different indigenous languages in most of the countries studied, it a big challenge to fund all those languages supposing they are to be elevated to national and official languages. The problem is compounded by the lack of a clear policy or direction on indigenous languages and follow-up by authorities. Government agencies advocating the development of local languages do not receive the necessary funds as they do with social activities like soccer leagues and horse races.

No monitoring of implementation of policies

The absence of strict monitoring of the implementation of the policies in domains like primary, secondary and tertiary education, and training, poses a major challenge as well. In Zimbabwe for example, most schools prefer to use English from the outset to ensure their student's proficiency in English, which is considered the language of power and economic wellbeing, disregarding the language policy that English must be introduced at Grade Four level. English is often viewed as the key to opening the door to opportunity in terms of education and jobs and as such, even early-grade educators are aware of the eventual fourth grade switch, the drive to encourage English as a primary mode of communication often happens sooner than it was meant to, thereby flouting the policy.

In Namibia, the government drew up a new language policy for schools in 2002, but this was never implemented. From 2000-2008 the National Institute for Educational Development (NIED) raised the home language issue several

times to try to convince the government to extend its teaching until Grade Seven. The final attempt by NIED was during the drafting of the National Curriculum for Basic Education in 2008. All these efforts to review and change the 1991 policy were without concrete and tangible results. In relation to English as an official and national language in Namibian schools, Wright's (2004) argument is insightful. He contends that "When mandatory schooling occurs exclusively in a national language, the use of local languages almost inevitably declines" (Wright 2004:503).

The dilemma of using mother tongue for instruction in schools

In most of the SADC countries, the policy on education stipulates that learners from Grade One to Grade Three should be instructed in the mother tongue, but this is not strictly adhered to, especially in private schools. Also, it is sometimes difficult to find a common language in some schools where authorities have no other option except to use a foreign language like English. What would be a common language be for the cosmopolitan city of Windhoek, Namibia, for example? The Ministry of Education and Culture tried to enforce the rule in Windhoek and the results were appalling – no single indigenous language could be found suitable or uniform for local schools. The rule was implementable only in rural schools where the predominantly spoken languages are regional languages like Oshiwambo in northern Namibia and Subya and Lozi in Zambezi region and Otjiherero in Omaheke region.

Resistance from parents

Parents have been reported to resist the use of indigenous languages at school, arguing that their children should be taught in English in order to have a good command of the global language. The ability to use English proficiently in both speech and writing has been associated with success and upward mobility. As a language of wider communication, English has opened opportunities for employment across the globe. It becomes natural for parents to demand that their children be taught in English from Grade One onwards, fearing that without English, their children will be doomed in life. For example, Otjiherero speaking parents would bring their two children to our house so that we could speak to them in English because we could not speak Otiherero with the children. The mother would say: "The people at home are speaking to my children in our language and I don't like that. I tell them not to speak to my children in Otjihereo, but they continue speaking that language."

In addition, some names that parents give their children do promote foreign languages. For instance, in Zimbabwe, among the Shona speaking people, the following English names are common: *Loveness, Lovemore*, *Talkmore, Godknows, Privilege, Nomatter, Surprise, Evidence, Evermore, Last, Takesure, Polite, Pretence, Perseverance, Witness, Peace, Manfire, Hatred, Energy, Pardon, Memory, Praise, Cloud, Sunshine, Eventhough*, *Editor, Forget*, *Pretty, Hardlife,* etc. These English names might have been meaningful in the contexts in which they were given, but the argument of this author is that giving equivalent names in the Shona indigenous language would promote the local language. The paper advocates for indigenous names for indigenous people in order to promote local languages. There is fertile ground for onomastic studies in the nomenclature of people not only in the SADC region but also in Africa as a whole.

The African model – Tanzania

Remember at the beginning it was said this author went on an academic journey to SADC countries searching for the truth and justice about treatment of indigenous languages. Not being satisfied with his findings in this region, he went far afield to East Africa and landed in Tanzania. The investigation made him conclude that the Tanzanian language policy was the best model which African countries could have adopted and adapted at independence. Why? A significant step that the government of Tanzania took at independence was to promote the development and usage of Swahili by setting up the National Swahili Council. The Council was established by an Act of Parliament in 1967. The Act spells out the functions of the National Swahili Council as:

> (a) to promote the development and usage of the Swahili language throughout the United Republic;
>
> (b) to co-operate with other bodies in the United Republic which are concerned to promote the Swahili language and to endeavour to co-ordinate their activities;
>
> (c) to encourage the use of the Swahili language in the conduct of official business and public life generally;
>
> d) to encourage the achievement of high standards in the use of the Swahili language and to discourage its misuse;
>
> (e) to co-operate with the authorities concerned in establishing standard Swahili translation of technical terms;
>
> (f) to publish a Swahili newspaper or magazine concerned with the Swahili language and literature;
>
> (g) to provide services to the government, public authorities and individual authors writing in Swahili with respect to the Swahili language (Whiteley 1969: 112).

Tanzania differs from some of its neighbours in that Swahili is spoken as a second language by a vast majority of the population and is a presumably the choice for a national language. Swahili is a Bantu language in structure and vocabulary, making it closely related to many of the country's local languages, but it also draws a great deal of its vocabulary from Arabic due to the influences of coastal trade. Swahili is the mother tongue of the Swahili people living along the coast and in Zanzibar, as well as of the younger generations of city dwellers. An estimated 30 million rural Tanzanians are second-language speakers, using their local language at home but Swahili for cross-tribal communication. Swahili is used in primary education while English is the medium of instruction at the secondary and post-secondary levels.

Swahili and English in education

We found the following points of great interest as far as Swahili and English are used in education. The points are presented as they appear in the policy to avoid misrepresentation.

1. The medium of instruction in primary schools shall be Swahili, and English shall be a compulsory subject (United Republic of Tanzania 1995: 39). However, the government had already legalised English as language of instruction in private primary schools in 1992. In 1997, following the redefinition of language policy in education, the dominance of Swahili was no longer clear since English and Swahili were given more or less equal status, implied in the statements below.
2. English shall be a compulsory subject at pre-primary, primary and secondary education levels and shall be encouraged in higher education. In addition, the teaching of English shall be strengthened (United Republic of Tanzania 1997:2).
3. A special programme to enable the use of Kiswahili as a medium of instruction in instruction in education and training at all levels shall be designed and implemented (United Republic of Tanzania 199: 3).
4. Kiswahili shall be a compulsory subject in pre-primary, primary and secondary education levels and shall be encouraged in higher education. In addition, the teaching of Kiswahili shall be strengthened (United Republic of Tanzania 1997: 3).

Although we cannot completely root out linguistic imperialism that was created by the colonial government, the development of Swahili in Tanzania is a model that SADC countries should emulate.

Way forward

As the way forward for SADC countries, the following should be done.

1. Change the attitudes of the ruling elite so that they can see that they are perpetuating linguistic imperialism.
2. Use African Languages bodies and organs to lobby governments to promote the development of indigenous languages.
3. Establish African Languages institutes like the one at the University of Zimbabwe.
4. Develop dictionaries, grammar books and promote fiction writing in indigenous languages.
5. Seek funding from government and non-governmental organisations.
6. Involve the private sectors, e.g. advertising companies.
7. Extend the use of mother tongue to secondary level so that learners can see the link between life at home and at school through their home languages.
8. Focus on corpus planning – corpus planning involves providing terminologies to serve socio-economic development. It also involves developing new vocabulary and discourse which will in turn help in the development of teaching material and other applications. Eventually, developing corpus resources could facilitate the ultimate functioning of previously disadvantaged languages in most or even all socio-economic communicative domains.
9. Language specialists should utilise new and technologically-based initiatives to develop and preserve each and every language. Computers can play a pivotal role in corpus planning especially in development of dictionaries and localising content. Computers are also used in storing a large amount of speech-based and text-based corpora for further research in African languages.
10. Catch them young – develop nursery rhymes and songs in indigenous languages in order catch children young in their languages (Finger Family Rhymes; Mickey Mousy; Zool Babies).
11. Adopt inclusive language policy – language planners must give the former colonial language and indigenous languages equal functional status. If indigenous languages are used in teaching and in school subject exams, they will gain prestige, which will increase the need to study them seriously.
12. Translate government documents written in foreign languages into indigenous languages; that would also enhance service delivery.

13. Establish community radio stations in indigenous languages. According to Wright (2004:503), 'Radio services run by indigenous people can also contribute to political, cultural, educational and linguistic awareness.'
14. There must be awareness campaigns to educate people on the importance of promoting their languages in order to preserve the culture of black people in Africa (cultural festivals like the Olufuko and Totem festivals in Oshiwambo; Zulu cultural festival)
15. Follow the Tanzanian Swahili model. Promote the learning and teaching of Swahili in all SADC countries. (At least we have started at UNAM and the results are encouraging. If we launch Confucius Centres to teach Mandarin at our Universities, why not Swahili centres also?)

Conclusion

This exploratory narrative has highlighted the challenges that SADC countries face in implementing their language policies. Judging from the research done on this matter and the reality on the ground, there is enough evidence to suggest that governments, linguists and other language practitioners need to work together more in order to change the statuses of indigenous languages. The suggestion is not to do away with foreign languages, but to create a conducive environment in which a mutual and symbiotic function can be promoted between indigenous and foreign languages in each country. The shining example of Swahili as used in Tanzania vis-a-vis English should inspire SADC countries to redress the language situation before some languages are forced into death or extinction.

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