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교육학박사학위논문

Endogenous Higher Education in Africa:

A Sustainable Model

아프리카의 지속가능한 내생적 고등교육 모델

2015년 8월

서울대학교 대학원

교육학과 평생교육전공

삼손 칸티니

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지도교수 Lynn Ilon

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2015 년 05 월

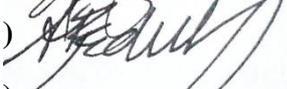
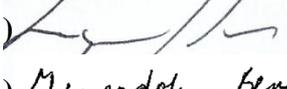
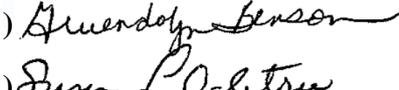
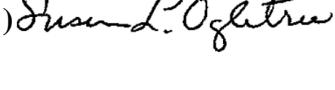
서울대학교 대학원

교육학과 평생교육전공

칸티니 삼손

삼손 칸티니의 박사학위논문을 인준함

2015 년 05 월

위원장	Johannes Tschapka	(인)	
부위원장	Annie Pedret	(인)	
위원	Lynn Ilon	(인)	
위원	Gwendolyn Benson	(인)	
위원	Susan Ogletree	(인)	

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Abstract

Endogenous Higher Education in Africa: A Sustainable Model

by

Kantini Samson

Submitted to the College of Education in partial fulfillment of the requirements for the Doctor of Philosophy Degree in Lifelong Education

Seoul National University
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This study is informed by the endogenous theory as applied to higher education in the context of Africa in general and Zambia in particular. The study explored the Global Knowledge Institute (GKI) as a prototype endogenous university education system: how it was designed; the extent to which, within the confines of its early development, was sustainable in Zambia; and the lessons that can be derived from its successes, failures and opportunities.

A mixed methods approach to action research that supports the exploratory and descriptive nature of the study was used. A between method-and-data triangulation was employed in data collection and analysis. This means research methods – documentary analysis (different archival databases), oral interviews (GKI students, researchers, professors, civil society and community members) and personal diaries (based on participatory observation) – were juxtaposed. The data was analyzed using a constant comparative strategy, a research analysis for multi-data sources which begins early in the study, is nearly

completed by the end of data collection, and leads to both descriptive and explanatory categories.

The findings showed that the sustainability of an endogenously designed university education system lies in the changes its structure and ideology brings about, thus transforming the theory and practice of higher education, as traditionally conceived. Traditionally, universities are defined by campuses presided over by professors and libraries as the sources of knowledge. Students are required to master this knowledge, then get assessed, and if they pass, graduated to go and apply the acquired knowledge in society. The public is charged with the task of financing this schooling. While many children qualify to enter university, only a few make it, not necessarily because of their brilliance, but because of their financial capacity and, often, connections to realms of power. The endogenous university challenges this with its content and outlook characterized by transformative learning, global networking, local community engagement (which is a social collective problem-solving alignment), inter-and-transdisciplinary pioneer system approaches to learning, orientation towards universal higher education access to foster university leadership in social transformation through creative research and innovations, and inventive technological applications. With these traits, it systemically and adaptively causes fundamental shifts on hallmark areas of education practice: capital, value, assessment, knowledge sharing, staffing and access.

On capital, the discourse shifts from physical capital to social capital – access to people, the dynamic resources incorporated in the local and global networks of individual persons, households, communities, businesses and organizations. The value shift is from things such as tuition (money) to knowledge and richness in diversity each individual learner, expert and community brings into the network. This is linked to the shift on assessment. Rather than focusing on test scores and economic value of certification, assessment turns to the co-creation of knowledge to solve real problems and, the capability and competence building processes to meet future learning needs of learners and communities. The old view of how knowledge is shared changes from restrictive, discriminatory and fiscally unsustainable approaches to more open access databases and crowd sourcing information networks. The discourse of staffing and brain drain shifts to ideas of wirearchy management systems and brain networking. Then, the discourse on access becomes universal access to higher education. It is within these new parameters that GKI, albeit with challenges, prove itself to be operational and sustainable.

Key Words: Endogenous, Higher Education, Sustainability, Complex Adaptive, Social Transformation, Institutional Viability, Networking, Local Knowledge, Innovation, Learning, Community, Technology.

Dedication

For Father and Mother

Apostle Josaya Katiniwo Sibanda
Prophetess Dorasi Nyangamire Nyirenda

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Chapter 1: Situating the Inquiry

I situate my inquiry in this chapter by providing background information to the study, stating the specific problem under investigation, the aims and particular research questions that addressed the objectives of the study. In this chapter, I also present a conceptual framework within which I undertook the study by defining and exploring the major theory that informs the inquiry. This is followed by the rationale and limitations of the study. I close the chapter with a brief layout description of each chapter that make up the dissertation of this study.

Overview

In a 2005 report titled “Toward Knowledge Societies”, the United Nations Education Scientific and Cultural Organization (UNESCO, 2005) echoed claims held by a number of both academic and development agencies that in a global and knowledge based economy, the driver of sustainable social progress is learning, knowledge and innovation. At the crux of this is a critical role played by universities as knowledge hubs and their learning systems as networks that foster lifelong learning and innovation technology. The foregoing counters the two long held views.

Firstly, that development is an industrial path laid down by developed countries with a series of successive stages of economic growth through which

all developing countries should pass. Innovation and creativity was seen to come from only one source (industrialized countries) and was generalizable. It is now agreed that for countries to progress, they do not necessarily need to learn and follow financial behaviors of developed nations. Innovation and creativity can come from anywhere and it is most likely to be valuable within a specific context. This means it is possible, therefore, that providing opportunities for the development of the capabilities for creativity and innovation, rather than the education and development path laid out by richer countries, builds a new way toward sustainable social progress in low resourced places like Africa.

Secondly, that university education is not an optimal investment to make, particularly for poor countries. On the basis of the human capital approach to analyzing investment, it is primary and secondary school education that were held as better investments for poor countries. The changing world economy where knowledge is supplanting physical capital as the source of present (and future) wealth has changed this view and higher education in general and university education in particular is now a major focus (World Bank, 2000). Accordingly, world over, countries are comparing and contrasting their university education systems in a bid for quality assurance, efficiency and effectiveness. This call is not new. It has been there from the time the concept of “university education system” was ever established. This is because like any level of education, university education systems are engineered to serve the

needs of society at any point in time. But times change and society has its dynamics. Thus, university education systems always need to be reengineered in order to meet demands of the present and prepare graduates for their future learning needs. The process of reform and changing university education paradigms has helped societies propel their own development.

Nonetheless, this idea that university education has enormous potential of contributing to sustainable development by bringing about major structural, cultural, social and economic transformations through generating innovation and networking ideas and learning cannot be said with any certainty in the case of Africa. This is because university education continue to be part of the onslaught of African civilization and the alienation, de-spiritualization, enslavement and underdevelopment of the African and African communities. University education reforms have served as tools to underwrite the replication of past and present systems of socio-economic inequalities with respect to diverse dimensions of social differentiation. Many researchers, writers and commentators have since called for the rethinking of university education in Africa. In that calling is an admission that current systems of education in Africa are not African in content and outlook. An endeavor to discuss how university education in Africa used to look like, before the borrowed systems currently in operation, is visible as an effort to suggest how university education as it concerns an African of today, should be like. How the university education system should be (basically what it

should do) has already been established because such an outlook or function is not unique to Africa but to the entire human race.

Almost all higher education thought leaders across the four continents of the world – Africa, America, Asia and Europe – agree that a good university education system should be an innovative moral embodiment of networks that inspire and harness a wide range of ecological settings, worldviews, indigenous epistemologies and ideological schools of thought of which exist in an interconnected and interdependent world and they enhance autonomy, humanity and nature as well as the intersecting of dynamic transdisciplinary curricula and transformative communities. Inherent in this view is that university education should move away from schooling to focusing on learning. This is because schooling is institutionally defined – nearly physically defined. There is a notion of “fixity” which codifies knowledge in a permanent way. For example, writing relies heavily on the use of “sight and light” as primary means within which to understand and describe the world. Such sight and light, as if mimicking nature, comes from the “top” and not the “bottom”. This conception of education explains the use of media like blackboards, books, projector screens and other objects which are static including furniture like chairs and tables orientated towards, and revolve around, the static sources of knowledge dominated by the “colonizing” cultures. Movement and interaction is highly restricted with a

particular stillness to focus on the “black board” and/or “white screen”. Education is reduced to internalization and regurgitating of “facts” and “truths”.

However, learning does not inherently have any of these features. It is most closely defined by networks rather than boundaries or hierarchies. It is defined by sharing, collaborating and collective thinking than measurement. Learning is more defined by ongoing, evolutionary and revolutionary ideas than mastery, assignments, grades or marks. It does not inherently have physically defined parameters although there is nothing to keep people from meeting face-to-face. Nor, is there any reason to believe that any given person or group is always, inherently either teacher or learner – roles may change or be fungible. Learning occurs in various environments, which draw on a variety of senses beyond sight and requires an attentiveness that involves ones whole being, and is orientated towards tuning into the nuances of societal relationships rather than only an internalized reflection on self. This means that learning, as a process, involves the whole self in relation to others and can therefore happen in any environment because life as a lived experience carries along with it lessons. “Multitasked attentiveness”, tuning in to the others, is thus a key mode of learning. For example, in our vernacular setting in Zambia, when a child misbehaves, she is told that she does not “listen”. Listening here does not imply a “listening to the word” spoken or written alone. It implies, instead, “a lack of attentiveness” to read context and understand the social and moral

implications of one's manner of conduct (N. Mususa, personal communication, September 13, 2014). In this case, learning, unlike schooling that values a static stillness, involves movement and interconnections, whether it is in learning practical tasks like cultivating a field or how to walk or carry oneself appropriately.

What these variations between learning and schooling mean for a university education system is that it should allow learning to be a lived daily experience that is not confined to a room, or a space, but happens anywhere, moves, and grows as people network in their communities. How a largely government-defined institution dissolves into a virtual network and still retains enough shape to satisfy the learning needs of individuals, communities and societies remains to be seen. The challenge for Africa is even greater. It is not just dissolving this colonially defined institution. It is how the new system can be insulated from replicating the old habits which have made higher education across the continent to be unsustainable. Unsustainability here is understood to mean failure of the system to, be institutionally viable and, foster the liberation of the individual and his community from all forms and sources of oppression including poverty, political tyranny, war, disease, corruption, religious superstition and their equivalents.

The primary reason for this unsustainability is not just the highlighted borrowed framework of university education systems in Africa. The current

claims of their transformative potential continue to be conceived and applied within a predominant model of economic development of industrialized countries which derives from an “Exogenous” model of development. Although the term has not been widely used until the introduction of an “endogenous” model of development, the exogenous model refers to development that is derived from something external or foreign – such as trade, or imported knowledge. Under this model, low resourced countries are advised to design and run their systems based on foreign models conceived by governments and corporations of industrialized countries. For instance, with the advancements in information and technology, there is a profound shift in the locus of university education (from physical infrastructure to new learning infrastructure) and the dynamics of learning (from banking concepts of learning to social concepts of learning). This shift is showing enormous potential in making higher education broadly accessible and more locally relevant. The biggest movement in this regard has been the Massive Open Online Courses (MOOCs). However, the MOOCs are exogenous by nature. This is because they are heavily dependent on broadcasting knowledge from top Western universities to poorer communities. Possibly, for this reason, MOOCs are not seeing as much success in developing nations compared to industrialized countries (Trucano, 2013). The main reason for this discrepancy is not just poor technological environment in poor countries; it is the inherent exogenous nature of the MOOCs.

In this dissertation, I deal with the question of what can be done to dissolve the largely government-defined institution into a virtual network that is sustainable and still retains enough shape to satisfy the learning needs of individuals, communities and societies. I also deal with how such a new education order can be freed from being conceived and applied within the predominant model of economic development of industrialized countries. I achieve this by building a framework on an emerging theory gaining ground in development literature and practice – the endogenous theory. Endogenous refers to something from within, indigenously rooted or with an internal cause. The endogenous theory focuses on locally manifested causes even as they may well be linked to global factors. This theory is associated with contextualized and sustainable education and development systems. Locally manifested means education and development are locally owned and instigated in local knowledge and social systems. Globally linked refers to the process of education and development being lifelong processes networked worldwide. The local manifestation and global linkage builds and strengthens a system's lifelong or sustainability capacities.

It is noteworthy that the endogenous approach to education systems does not necessarily seek to replace or provide an alternative to exogenously conceived university education systems. In some cases, the endogenous approach provides a parallel system of education that provides contextualized

opportunities for poorly resourced communities throughout the world and at the same time complements and works with the exogenously derived education systems. This does not mean allowing the status core in poor communities to continue but setting in motion a progressive transformation process that is not threatening but seeks balance through critical discourse and assertive action.

To demonstrate the applicability of the framework and bridge the gap between theory and practice, I examined a prototype university education system in Zambia being developed around the new approach of the endogenous theory. This university education system is called the Global Knowledge Institute (GKI). GKI is not wholly separated from the existing dominant university education systems in Zambia (the University of Zambia and Copperbelt University), or from the older problems of university education in Africa, which are thoroughly covered in the literature review. Also, the GKI is neither a complete working model nor finalized and ready for a formal evaluation of its successes and failures. Rather, as a prototype, it is a work in progress. Its design assumes, in fact, that it will constantly learn, grow and change and it builds from its community, national and global links and dynamics. Thus, it is neither fully complete nor a product, but, rather, an evolving process. Much can be learned from this evolving process particularly by asking how the GKI was designed; how its learning system was operational along the lines of the endogenous theory; and whether or not it is successful and/or sustainable in the African

context of Zambia. This is the nature of the inquiry that I made in this study, and further established lessons that can be learned from the GKI story.

Background

University education systems in contemporary Africa were exogenously created, that is, they are largely a product of colonial design and still mimic the colonial structures in physical, pedagogical, structural and knowledge design. The systems are patterned after the colonial universities which were designed to support the bureaucratic governance of the colonies and, later, industrialization (Said, 1977).

Beginning in the late 1970s, university education systems throughout Africa began to decline (Teferra & Altbach, 2004). State-sponsored higher education came under relentless strong objection from the World Bank. At the same time, private higher education was not lawfully supported in a number of countries like Zambia and proved to be very expensive and could not compete effectively with the public sector (Varghese, 2009). African governments were the main provider of university education until the 1990s. The governments, however, devoted few, if any, resources to the development and maintenance of university systems (Teferra & Altbach, 2004). This is because state attention was on primary and secondary education based on the strict prescriptions of the World Bank under Structural Adjustments Programs (SAPs). The SAPs among other economic structural reforms prescribed a reduction of state funding and

support to public sectors such as health and education and particularly university education (Bloom *et al.*, 2006). The argument given for this by the World Bank was that public investment in universities and colleges brings meagre returns compared to investment in primary and secondary schools and higher education magnifies income inequality (World Bank, 2000). The Bank further claimed that university education was a recipe for “social chaos” and “political instability” as African countries lacked capacity to recruit and highly reward the educated whose qualifications demand high salaries (see Sobel, 1978; Psacharopoulos, 1991, 1994; Romer, 1986; Bloom *et al.*, 2006).

The implementation of the above prescription, coupled with the decline of many African economies, set in place a systematically slow, but progressive destructive system that resulted into what the World Bank’s Task Force on Higher Education and Society report called the “perilous state” of university education systems in Africa with “low quality and deteriorating institutions (and whole systems) that are highly politicized, poorly regulated, and sometimes corrupt” (World Bank, 2000, p. 16). The same report notes that “this challenge is well understood by most residents of low resource countries because in Africa,” former President of Tanzania, Benjamin Mkapa, is quoted to have lamented that, “universities are becoming obsolete as they are failing to produce men and women willing to fight intellectual battle for self-confidence and self-assertion as equal players in the emerging globalized world” (World Bank, 2000, p. 15).

Numerous studies (Bloom, Canning & Chan, 2006; Muchenje & Goronga, 2013) are showing that viable university education systems can accelerate scientific and technological advancements, consolidate capacity development of low resource countries to maximise value added output and decrease knowledge gaps and eradicate poverty. Accordingly, university education systems in Africa, like elsewhere in the world (Marginson 1993), are under critical scrutiny on how they can continue to advance the commercial professional enterprise of the continent and act as vehicles for political and socio-economic functioning and transformation (Morrow & King, 1998; Williamson, 2000). The African Union Commission (AUC) also observed that when around the world, public and private universities are commended for their achievements and excellence, Africa is mourning the demise of its own. Whether the universities are public or private, no African university is among the top 200 world university systems (African Union Commission, 2012). The Commission further contended that there is an urgent need to avoid multiplication of “briefcase” universities delivering degrees with no real value though being costly. There is a concern therefore whether African countries will be able to compete in the knowledge economy or face a future of increasing exclusion, unable to develop the skills required for the twenty-first century knowledge economy because the university learning systems are currently unsustainable with few exceptions in countries

like South Africa (see Bloom et al., 2006; Ilusanya & Oyebade, 2009; Ilon & Kantini, 2013; Muchenje & Goronga, 2013).

Of particular importance is the growing discourse (Maila & Awino, 2008; Dei, 2004; Sawyerr, 2004) that university education systems cannot be structured around industrial-commercial models if they are to achieve broader transformational purposes. This is because a global knowledge system is not adequately supported by a market driven education model. Such a model may not be able to engage learning qualitatively in important civic purposes, traditions, values and wider social transformational efforts (Weaver, 1991). Duderstadt (2000) suggests that the universities could be at a greater risk if the future of the universities is left to be determined by market forces alone. This is because, in today's complex global world, the highly educated and conscious citizen necessary for a democratic society is a product of a system that transmits cultural heritage and value systems from one generation to the next, and critiquing the social order with an objective, critical and independent mind.

The Global Knowledge Institute (GKI) is the first of its kind initiative known to be designed along the new endogenous thinking. It was launched in 2011 within the provision of the Government Republic of Zambia (GRZ) by, and through, the collaborative efforts of a network of professors and students from Seoul National University in the Korea Republic, the University of Zambia in Zambia, and later joined by Georgia State University in the United States of

America as well as Zambian local community institutions¹ and one non-governmental organization (NGO).² GKI continues to grow in size and in global partnerships. The local and global expertise, private and public efforts including local communities have been brought together under this university education system as an attempt at trying to address the challenge of non-sustainability of university learning systems in Zambia particularly, and Africa in general.

Statement of the Problem

Current systems of university education in Africa are unsustainable. The university systems assume a structure of government, commerce, finance and knowledge that were imported from other countries, other eras and a quickly receding economic period. There is an emerging theory that links knowledge with both development and learning that provides a sustainable model. This model has specific elements that can be examined. If elements of such a model can help to address the problem of the unsustainability of university education systems, it not only helps societies in poor countries, it helps the entire world as it becomes increasingly linked and the welfare of one society affects that of all societies.

Overall Research Question

Is the Global Knowledge Institute creating a sustainable university education system in the context of Zambia?

¹ Chongwe Secondary School and Chibombo Secondary School.

² Crystal Consulting.

Theoretical Framework: Endogenous Theory

The GKI is based on the endogenous approach to university education systems in contemporary Africa. Endogenous theory evolved from the Nobel Prize winning work of Robert Solow in 1957 (Solow, 1957). Paul Romer applied some of Solow's work and popularized the theory in his presentation to the World Bank in 1990. At that time, he called the theory "Endogenous Technological Change" (Romer, 1990). The notion of the theory runs counter to neo-classical thinking on how societies make progress. Endogenous theory posits that societies, throughout history, derived progress through *ideas*. These ideas could have the possibility of changing the way a society operated, moving an entire society forward – such as navigating by stars, or switching from Chinese characters to Hangul for Koreans. Some ideas have spurred industry but some have simply created a different way for the society to operate and moved the society forward.

Previously, neo-classical economists had theorized that societies moved forward through building industry and trade. Substantial mathematical models had been built using this neoclassical economic thinking. Unfortunately, the new model based on ideas (or knowledge) did not fit neoclassical mathematical models. So, there began a debate in the Economics field about which model was correct (Mirowski, 2009, Temple, 1999, Warsh, 2007). Out of this debate, many theorists have advanced the model including another Nobel Prize winner and

former Chief Economist of the World Bank, Joseph Stiglitz (Stiglitz, 2014) and a growing number of scholars from a variety of fields inside and outside of the field of Economics (Sawyer, 2006; Attewell & Savill-Smith, 2005; Calvani, Bonaiuti & Fini, 2008; Downes, 2010).

Through the works of scholars like Stiglitz (1987, 2011) and Romer (1990, 1993), the Endogenous theory was built further and came to be known as the New Growth Theory (Solow, 2000; Cortright, 2001; Ruttan, 1998). Recently, the theory is being referred to as Knowledge Economics (Stiglitz, 2011; Ilon, 2014). It is important to note that the Endogenous Theory is not purely economics. Its core ideas are traceable in, and have evolved from, other fields including education, particularly, in the works of critical pedagogy theorists (Freire, 1973; Guess, 1981; McLaren & Leonard, 1993; Garcia, 2001) and recently the New Learning Sciences (Sawyer, 2006) and Learning 2.0 (Attewell & Savill-Smith, 2005; Calvani, Bonaiuti & Fini, 2008; Downes, 2010). The theory has substantially expanded in the fields of Information and Communication Technology, Networks and Development studies (Smith & Reilly, 2013) where it is being referred to as Development 2.0 (Smith, Elder, & Emdon, 2011) or Open Development (Rucker, 2013).

This section explores the guiding core ideas of the endogenous theory and shows evidence of the growing influence of the theory in education and development discourse. The core ideas constitute a model framework of an

endogenous learning system which is later used to explore the state of university education in Africa and Zambia specifically. The framework also informs the methodology and the analysis as well as discussion of the findings of the study.

Core Precepts of the Endogenous Theory

Endogenous Theory is guided by two core ideas: knowledge as currency and multiple knowledges. These core precepts are the basis of, and dynamo that drives, sustainability. The questions that arise are what is knowledge as currency and multiple knowledges? How do these translate into sustainability? The following sections address these questions.

Knowledge as Currency

The idea of knowledge as currency provides an alternative view of how societies grow economically. For years, the generation of goods and services for societies to develop has been defined along the industrial lines of factors of production, that is, land (including all natural resources), labor (including all human resources), capital (including all man made resources) and enterprise (which harness all the above resources together for production). The endogenous theory posits that knowledge is a factor of production in its own right and is distinct from labor as well as different from all other kinds of physical goods. It is the power and importance of knowledge and its networks that is critical for social welfare. In fact, the tangible capacity of individuals and institutions is in the connection between themselves and others – their environment. That

connection is nothing but knowledge. Also, financial systems or markets are controlled by knowledge and networks. With or without markets, knowledge creates value which drives and raises the socio-economic, political, civic and cultural wellbeing of societies. Two factors make this possible: the economic characteristics and network properties of knowledge.

Economic characteristics of knowledge

The economic characteristics of knowledge include non-rivalrous, decreasing returns to scale, non-excludability, cumulative, mobility, and substitutability (Blakeley, Lewis, & Mills, 2005; Cortright, 2001; Romer, 1990; Skyrn.com, n.d.). The non-rivalrous character of knowledge is its usability by many people at the same time with each person benefiting equally. This applies to knowledge that has not been reduced to a physical object, such as a book. For example, not many people can read one printed copy of a book. But people can surf for the same concept or book on the web from around the world at the same time and benefit equally. Physical items like a book always take nearly the same amount of resources to duplicate. Sometimes those resources come at increasing costs as those resources are either depleted, or more difficult to acquire. This is known as increasing returns to scale. But knowledge, on the other hand, while often very expensive to build initially (requiring lots of time and the brain power of highly skilled people), is almost cost-free to duplicate and can be spread in

vast networks at nearly no cost. This economic characteristic of knowledge is called decreasing returns to scale.

Similar to the above characteristics are the non-excludability and cumulative nature of knowledge. Unlike physical goods (or services) that are usually only usable by one person at a time and their consumption or usage depletes them, knowledge can be used by millions of people simultaneously and continuously. Besides, unlike grazing lands that deplete, and soil, which deteriorates due to overgrazing, knowledge usage by many people creates more relevant and better knowledge (Ebert, 2011; Rasmussen, 2012). It in this vein that scholars like Sherman, Waterman and Jeon (2014) and Tschmuck (2010) have argued that it is in giving away knowledge for free than selling it where there is more value.

The old understanding of knowledge informed by the human capital theory assumed that knowledge was privately held (by institutions, individuals or governments). For education, for example, this meant that you had to go to physically located schools to gain knowledge. The logic of the endogenous theory sees knowledge as social value. Value is created when knowledge is shared, widely accessed, built collaboratively and collectively owned. As people move, they both leave behind and transport their knowledge from one sector, location, or venue to another and share it along the way. So knowledge is as mobile as people can be and present wherever lifeforms exist. Thus, the question

is no longer about access to physical institutions, or facilities and the knowledge they “hold,” (Becker, 1964). Rather, it is accessing people and how people combine, share and access knowledge to create a common good (Jones & Williams, 1998; Jarboe & Atkinson, 1998). This means that institutional physical infrastructures such as libraries that initially were viewed as critical for knowledge storage and dissemination can be replaced. You may not need to build a Harvard kind of library in Lusaka, Zambia. The hard copy books and library buildings can be substituted by computers and the internet. Also, you may not need to domesticate Harvard professors in Lusaka for teaching and research purposes as their knowledge can easily and freely be accessed virtually. This is the substitutable economic character of knowledge.

Networked properties of Knowledge

The economic characteristics of knowledge are complimented by its network properties which include self-demand driven, self-supply generation, collectivity, accessibility and transferability (Chan, 2001; Siemens, 2006). The demand for knowledge does not diminish the more it is produced and used. It increases. As people acquire knowledge they yearn for more knowledge. This is different from things like shoes whose demand diminishes the more they are produced and acquired (Ilon, 2014). In fact, it is not just the demand that increases; knowledge itself and the supply of it increases. This is because as knowledge is being created and used, more knowledge is being created and

supplied. Simply put, “knowledge begets knowledge” (Witbrock, Matuszek, Brusseau, Kahlert, Fraser, Lenat, 2007). The idea of knowledge begets knowledge is the self-creation and self-supply generation network properties of knowledge.³

These two traits also reveal the transferable character of knowledge, that is, knowledge does not necessarily require to be physically transported by vessels such as vehicles, trains aeroplanes or ship. People to people social interactions does the job. Advancements in technologies including the internet, which has enabled networking beyond cultural, geographical and institutional boundaries have made getting and creating knowledge through people to people interaction become more effective, cheaper and less time consuming (Miller, 2013; Team Smartling, 2012). For instance, on Amazon.com, you do not only get information of the book you are searching for but also related books that other people who purchased the book you have searched for. This is the accessibility network trait of knowledge. It means access to knowledge is increased by knowledge especially that technologies are also knowledge products.

The last network property of knowledge is collectivity, that is, it is created collectively by and through networks of people. Norgaard (2004) points out that

³ In fact, it is this reality that explains how endogenous systems are self-sustaining. They shift from hierarchical systems (which requires substantial management) to networked systems (which build themselves). And network systems depend on knowledge, a currency that self-generates and creates its own demand, for their growth and sustenance.

human beings naturally cherish generating and sharing ideas together, and technological advancements have only served to extend this inherent human sense of collective knowledge creation. Take for example how knowledge is created and shared on the internet. It relies on a combination of ideas, knowledge and learning of many people worldwide as open collaborative sources. Even operating systems of servers, smartphones, and embedded computing and enterprises are being generated as open source software which depends on the collective intelligence of millions of people.

Clearly, the economic and network properties of knowledge shows how and why the endogenous theory shifts the thinking that societal well-being was rooted in the accumulation and growing of “capital” resources largely through industrial output to the new notion that it is human ideas and creativity that builds the wellbeing of societies and move them forward (Howkins, 2002; Romer, 1991). The invention of the printing press, the idea of a wheel or sailing ships or the ability to navigate by reading the stars are all ideas spawned from human creativity that moved the world forward. Some of these ideas do build industrial output, but others simply improve lives on a daily basis without ever going through markets. Also, these knowledge properties show how the notion that societal well-being was rooted in the accumulation of wealth and goods (industrial output) shifts to the notion that it is created through the ability to be

innovative in terms of how people think about how to use their energies – including how to use material resources.

This chance to increase value primarily through the resource of innovation, ideas and creativity – learning and knowledge – raises a lot of possibilities for poor countries in terms of how to foster their education and development. This is more pronounced especially by the second core idea of the endogenous theory – multiple knowledges.

Multiple Knowledges

The Endogenous Theory accepts that knowledge comes from varying sources and is subject to the source, context, and time. The theory recognizes different views as unique and particular to specific environments. The theory places focus on innovation based on context using immediate knowledge sourced from practical and applicable elements from different disciplines. Elements or ideas considered from any source are creatively drawn and adaptively integrated into a completely new framework. The new framework is not rigid and static – it is specific, flexible and evolves. The endogenous theory has no allegiance to a particular discipline such as economics or education. Allegiance is to ideas or knowledge and their contextual application. New ideas are evaluated based on their contextual competence, not because they replace, oppose or clarify old theories. The focus on contextual application and competence emphasizes “local knowledge” more than “global knowledge”.

Global knowledge is externally mediated knowledge attained through formalized study and exposure to knowledge systems defined by models of first world scientists and bureaucratic institutions. Such knowledge is usually segmented and sanctioned as academic qualifications and corporate credentials (Kantini, 2013). Local knowledge reflects and is an applied continuous stream of the awareness, beliefs, ideologies and practices in a given geographical area with respect to times and circumstances. It is usually unknown outside of its immediate context. The endogenous theory's understanding of local knowledge defies two old aged assumptions. The first assumption about local knowledge was that its scientific validity is methodologically weak, improvable, populist, or politically naïve (Leach & Mearns, 1996). The endogenous theory understands that local knowledge has value and that its landmark importance lies more in the contextual space of time and place than methodology and ownership. From this perspective, local knowledge is not thought of as being exclusive to a specific group, such as indigenous peoples. It is a collective consciousness that appreciates "multiple domains and types of knowledge, and incorporates differing logics and epistemologies" (Bicker et al., 2000, pp. 316–319) to a given problem in a specific context.

The second assumption defied by endogenous theory is that local knowledge can be subject to extractive approaches which take it at face value, appropriate it, package it into the models of first world scientists in order to

maximize its value outside local communities (Barsh, 2001; McCorkle, 1989; Thrupp, 1989). This assumption looks at local knowledge and knowledge in general as belonging to and owned by a specific group of people. The endogenous theory sees local knowledge as something that is collectively owned. Local knowledge is understood as emerging from historical and continuous interaction of vernacular ways of knowing of community inhabitants with “other” knowledges of non-inhabitants from the outside world be they allies, neighbors, invaders or oppressors. Local knowledge is appreciated as existing and evolving within “asymmetrical power structures that are related to issues of independence, self-reliance, and collaborative problem-solving” (Beckford & Barker, 2007, p. 126) and forms the conceptual frameworks for lifelong learning and sustainable social progress.

Further, Endogenous Theory recognizes that this extractive assumption of knowledge partly explains why the current bottom up participatory approaches being employed by governmental and non-governmental organizations are in practice replicating and reinforcing existing top down power relations founded on global or “scientific” knowledge and notions of wealthy countries (Mansell, 2014). For example, in a study on the use of knowledge yielded by participatory approaches in Kenya, Kirimi and Wakwabubi (2009) argue that the generated knowledge is not only inaccessible to most people. It is stored in formats that are

not user friendly. This hampers learning for the same institutions responsible and both the internal and external audiences they target.

The Endogenous Theory therefore has at its core strong receptivity to local engagement approaches and to multiple sources of knowledge. The context and knowledge as defined locally (within) and globally (externally) is appreciated and networked. This helps to avoid biases favoring global knowledge and values over the local knowledge, language and understanding of the inhabitants of a given community (Zirschky, 2009). The endogenous theory is not interested in the export and import of knowledge, but fostering local knowledge capacities through multi-stakeholder “practice-based approaches” that are responsive to the aspirations of those for whom policy interventions are intended. In endogenous approaches, as Ferguson et al. (2008, p. 30) points out, “epistemic diversity” is upheld and “different discourses, different knowledges coexist”. The tendency to placing a single knowledge paradigm at the heart of all learning and development discourses is strongly abhorred. This is because sustainability of any given community depends on harnessing the connections and perceptions of local populations as to their choices and meaning construction in local environments (Powell, 2006). But this sustainability is undermined by the old aged practice of drawing insights from externally mediated models and applying them to local contexts where they have little, no, or different meanings (Jones, 2009).

Towards Endogenous Approaches: Evidence of Shift in Global Policy

A number of key global institutions including the World Bank, the United Nations Development Program (UNDP), United Nations Educational, Scientific and Cultural Organization (UNESCO) and United Nations Conference on Technology and Development (UNCTAD) have increasingly started moving their policy and intervention strategies towards approaches founded on the endogenous theory.

From as early as the 1990s, the World Bank identified knowledge and information gaps as causes of development disparities and social inequalities. The only challenge was that knowledge at that point was looked at as sunlight from above – wealthy countries – which could travel the world and shine for everyone below – poor nations (World Bank, 1999). The travel of this sunlight to bridge knowledge gaps was underscored even more with the rise of Information and Communication Technologies (ICTs) “shrinking distance and eroding borders and time” (World Bank, 1999, p. i). Poor countries were expected to simply absorb knowledge and communications technologies from wealthy countries (World Bank, 1999). Thus, agencies of the World Bank focused on the absorption capacity of such external information and technologies to boost the economies of poor countries, just as the “East Asian Tiger countries” – given their specific combinations of resources – had been seen to do (Mansell, 2014). Indigenous technologies and local knowledge in respective countries were ignored. While the Bank seem to continue to follow the precepts of acquiring

external knowledge, disseminating it, and ensuring its absorption to redress “technology and knowledge gaps” to stimulate economic growth in poor countries, there is now a recognition of the need to tap into local knowledge and the power of multiple knowledge sources. In its 2000 report, “Higher Education in Developing countries: Peril and Promise,” the World Bank argued that the wealth of any nation today is concentrated less and less in factories, land, tools, and machinery. The knowledge, skills, and resourcefulness of its own people are increasingly critical to the socioeconomic and political wellbeing. Consistent with this thinking, the World Bank recently launched an “Open Development” portal to allow people from everywhere to access and tap into as well as collectively contribute innovative ideas to its operations, expert networks, data, research, knowledge products and platforms on different issues (World Bank, 2015).

The United Nations Development Program (UNDP) also started aligning its reports towards endogenous approaches as early as the 1990s. The alignment became more evident however in the late 1990s into the early 2000s. In its reports of 1999, 2000 and 2001, the UNDP argued that development is all about providing opportunities to expand the choices, capabilities and functionings of the poor (UNDP, 2001, 2000, 1999). To turn away “from concerns primarily with income or utility, towards the capabilities available to people to meet their aspirations” (Mansell, 2014, p. 114) and “live long, healthy and creative lives”

(Alkire, 2010, p. 3). It is noteworthy, however, that these reports only insist on policies more compatible with the endogenous model. Practically, the reports conclude by turning towards exogenous approaches that look at the absorption of the first world's ICTs in poor countries as the means to bringing about development (Mansell, 2014). This flaw is explained by the fact that such high level discourses remain dominated by the interests of industrialized countries whose principal ambition is profits, prestige and power from the export and sale of their culture, technological products and content.

More than any other organization, UNESCO's alignment with the precepts of the endogenous theory was categorically stated in its 2005 report, the "Knowledge Societies". The report points out that "every society has its own knowledge assets. It is therefore necessary to work towards connecting the forms of knowledge that societies already possess and the new forms of development, acquisition and spread of knowledge valued by the knowledge economy model" (UNESCO, 2005, p. 17). This statement underscored UNESCO's earlier argument that the import and export of information from wealthy countries into poor nations undermines bottom-heavy and indigenous development (UNESCO, 1996). The organization has continued on this endogenous front by emphasizing the needs of marginalized groups and an in-depth understanding of the national communication environment to foster cultural diversity, sensitivity and tolerance, equity and inclusive participation (UNESCO, 2007). Further, consistent with the

endogenous model, UNESCO in its 2007 report called for a great focus on the communicative process, rather than on technology (UNESCO, 2007).

A similar focus on endogenous approaches is present in the United Nations Conference on Trade and Development (UNCTAD) reports especially the 2006 Information Economy Report. The report highlights the importance of multi-stakeholder and participatory approaches. For example, it argues that “different technologies have different contributions to make to poverty reduction and that, to be effective, pro-poor ICT efforts must be embedded in poverty reduction initiatives (including national development strategies) and best practices (such as multi-stakeholder and participatory approaches” (UNCTAD, 2006, p. xxiv). Mansell (2014) notes that in effect, however, the pro-poor efforts are in practice not translated as presented in theory. The efforts are usually manifested in the form of “ICT master plans, designed in a top-down way to achieve targets and objectives at the national level, with insufficient attention given to local contexts and to bottom-up approaches, despite participatory dialogue in the process of devising the plans” (Mansell, 2014, p.116).

Rationale and Limitations of the Study

The advent of the global and knowledge based economy has seen a resurgence of interest in university education in Africa. But the systems remain institutionally unviable and are failing to contribute to social transformation efforts on the continent. Many studies that have recently explored this challenge,

have done so at macro-level (continent and nationwide levels) and ended up generalizing findings from case studies in selected sections of country in question (see World Bank, 2000; Millot et al., 2003; Altbach & Teferra, 2004; Muchenje & Goronga, 2013). Earlier studies concentrated mainly on giving a historical overview of the higher education sector both at country, regional and continental level. The focus was more on the institutional management, government funding towards, and privatization of, higher education; showing whether or not there is public policy for higher education liberalization and factors explaining the regeneration of private, and degeneration of public, higher education institutions. This study does not generalize higher education. Its primary focus is university education. Also, this study is not engrossed in the current wave of scholarly projects on university education in Africa that are interested in simply talking about problems, how such problems originate from colonial legacies and current donor aid conditionalities, how successive governments have remained incapacitated to disentangle their respective countries from this vicious cycle, and making bold general policy recommendation statements.

This study is important for practitioners, knowledge and innovation entrepreneurs, donors and policy makers who are interested in social transformation fostered by university education systems. Particularly, those interested in contextually remedying unsustainability problems of university

education using enhanced private public partnerships, individual and institutional networks rooted in local knowledge and building from the grassroots.

Nonetheless, there are limitations to this study. It does not guarantee that any new system can and will overcome the challenges of university education in Africa. In fact, designing a system that provides a viable parallel system to old-aged and fixed systems is an even bigger challenge compared to any of the existing unsustainability related problems. Furthermore, the prototype that is the focus of this research is a small start-up that may potentially take on a different character if it were implemented at a larger scale. GKI is in its “proof of concept” phase, it cannot be said, to the extent that it may have succeeded (or even failed) at the point of this study, that GKI is a success or a proven methodology. What it does is give us a new perspective on a historical problem. This is important because nothing changes until perception changes.

This study assessed whether particular features of the new perspective, the endogenous model, which is supposed to be a sustainable design, were in place, to what extent they were in place and how within the confines of GKI’s early development, these features were efficacious in the context of Zambia. To achieve this, specific research questions were posed which include the following: (1) What are the issues of the university education system’s sustainability in the African context? (2) Which elements of the Global Knowledge Institute were designed for sustainability? (3) To what extent are these elements successfully in

place? And (3) What are the lessons to be learned from the prototype of the Global Knowledge Institute model so far?

Layout of the Dissertation

The layout of this dissertation may be unusual to those used to traditional dissertation layouts. Chapter 1 has done what any other first chapter ought to do, that is, introduce the study by providing background information to the inquiry, stating the specific problem under investigation, the aims and objectives of the study inherent in the overall and specific research questions respectively. The Chapter also detailed the Endogenous Theory to provide a clear theoretical background and framework of my study.

Traditionally, literature review would then follow as Chapter 2. It is not the case in this study. I have put methodology in Chapter 2. This is because my literature review is part of the findings. I am providing a new lens of what has already been looked at by many and various researchers who have almost reached a common understanding that at the crux of the unsustainability of university education in Africa, like other poverty trapped regions, is the poor financing of the higher education sector and not so much of the institutional ideological framework. The endogenous lens I use to review literature provides an alternative view. To appreciate this alternative standpoint, one requires an understanding of the analytic tool used founded in the methodology and methods shaped by the theoretical framework – the endogenous perspective. So, while

Chapters 3 and 4 review the literature on the failure of university education in Africa, the discussion does not repeat already known arguments. It reviews them from an endogenous perspective thereby bringing out insightful endogenous explanations to the subject under study. The insights derived from this are integrated in the findings and the discussions of the findings thereof. Three reasons account for this integration. Firstly, to situate and justify every aspect and argument of this study in a broad historical context and within the scope of the investigation. Secondly, to critically examine and connect what has been learned so far and still needs to be learnt and accomplished in the area of the study. Lastly, to enable the study not to just give summaries of existing literature as is usually the case in many dissertations but to critically relate the existing literature with the findings of this study (Boote & Beile (2005). Such a critical relation helps the study to tally and talk about the problems in existing literature. Even more, the study is enabled to clarify and resolve problems in existing literature by giving a progressive problem shift that engenders a new approach to sustainability of university education in Africa with more elaborative and prognostic power than is offered by existing perspectives.

Chapters 5 explores literature and researcher observations and diary notes of how the GKI was designed to be sustainable using endogenous elements. Chapter 6 discusses which of the intended elements were perceived to be, and are, in place. To have the elements in place is one thing, but to have those elements

working is another. So, Chapter 7 establishes and discusses whether or not the designed and established GKI elements were efficacious. Chapters 8 and 9 identify and discuss the lessons that can be learnt from the GKI prototype, the conclusions that can be derived from this, and the possible recommendations for further research and implementation in the higher education sector in low resourced countries⁴ like Zambia.

⁴ Low resourced countries here refers to nations that traditionally have been called “developing” and/or “poor” countries.

Chapter 2: Methodology

In this inquiry I employed a mixed methods approach to action research⁵ on the endogenization of university education in contemporary Africa in general and Zambia in particular. Action research is now known by many other names: participatory research, collaborative inquiry, emancipatory research, action learning, and contextual action research. Whatever name that one may choose, the aim of action research is to

contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously. Thus, there is a dual commitment in action research to study a system and concurrently to collaborate with members of the system in changing it in what is together regarded as a desirable direction. Accomplishing this twin goal requires the active collaboration of researcher and client, and thus it stresses the importance of co-learning as a primary aspect of the research process (Gilmore, Krantz & Ramirez, 1986, p. 16).

Three key attributes that sets action research apart can be derived from the preceding quotation. Firstly, action research turns all research participants into

⁵ Action Research is believed to have been fathered by Kurt Lewin, a German social and experimental psychologist, who was one of the founders of the Gestalt school. He was concerned with social problems, and focused on participative group processes for addressing conflict, crises, and change. Lewin applied his research to systemic change in and between organizations and emphasized direct professional - client collaboration and affirmed the role of group relations as basis for problem-solving. He coined the term 'action research' in his 1946 paper, "Action Research and Minority Problems", where he characterized action research as "a comparative research on the conditions and effects of various forms of social action and research leading to social action", using a process of "a spiral of steps, each of which is composed of a circle of planning, action, and fact-finding about the result of the action" (O'Brien, 2001). He believed that decisions are best implemented by those who help make them.

co-researchers with the belief that people learn best, and more willingly apply what they have learned, when they do it themselves. Secondly, it deals with a real world socioeconomic and political issue and aims at solving a real problem involving that issue. Thirdly, the researcher is a full participant in the matter and its social context to a point that critics of action research would say takes away the researcher's objectivity. The researcher does need to pretend to be objective anyway. Thus she has to acknowledge her bias.

It is important to state that there are four main streams of action research that have emerged: traditional, contextural (action learning), radical, and educational action research. In this study I do not use the traditional one because of its tendency "toward the conservative, generally maintaining the status quo with regards to organizational power structures" (O'Brien, 2001). But I mix the contextural, radical and educational action research for the following reasons derived from each stream.

From the contextural action research, also known as action learning, I borrow its focus on involvement of all affected parties and stakeholders in a given system or context, turning those participants into research co-designers and co-researchers of some sort by using how each participant understands the working of the whole. From contextural learning also comes an understanding

that social transformation sustainably occurs with consensus and normative incrementalism.⁶

Radical action research, which has its roots in the Marxian “dialectical materialism” and the praxis orientations of Antonio Gramsci, gives my methodology a focus on emancipation and the overcoming of power imbalances, and the strive for social transformation through practical processes of advocacy to give a voice and opportunities to marginalized groups in society, and in the case of this study, through free university education.

Lastly, my borrowings from educational action research are found in the origins of educational action research itself. John Dewey is believed to be the harbinger of this stream as he believed that professional educators like myself should become involved in community problem-solving. I thus use this belief to locate myself and my study in a social context where I work with a network of

⁶ I have used this term here, “normative incrementalism,” in relation to this study to emphasize that rationality, which I think has been the main approach to development and sustainability issues in Africa in the name of empirical scientific evidence by western scientists, may not work for three reasons espoused by Herbert Simon. One, rationality requires that all alternatives are known beforehand; yet in reality, only a few alternatives can ever be specified. Two, rationality requires a complete knowledge of the consequences resulting from each alternative; yet the complexity of most sustainability problems make this an impossibility. Three, imagining future consequences implies some level of value judgment in the decision; yet values can never be anticipated or completely defined or indeed generalized (Simon, 1997, p. 93).

professors and students in a community focused project aimed at solving a problem through applied transformative learning.⁷

Case under Observation and my Involvement

The problematic situation for my study is the unsustainability of university education in Africa. The system that I study in trying to address this concern is the Global Knowledge Institute (GKI)⁸ in Zambia. The collective desirable direction of GKI members is to have sustainable communities through endogenous higher education for all. GKI aims at leading the way in being that endogenous university education system (providing higher education for all) that is integrated in community processes of building collective problem solving strategies that foster their sustainability.

In this study, I collaborated with GKI members from its founding in 2011 until now in transforming it into this collective desirable direction of an endogenous university. Between 2013 and 2015, I was partially absent from the GKI operations in Zambia because of my doctoral studies at Seoul National University (SNU) in the Republic of Korea. My absence was partial because it was only physical and this happened during my semesters only. During all my vacations, I flew back to Zambia to work with GKI. Even more, during my semesters at SNU, I fully worked with the GKI team in Seoul which was in

⁷ See a detailed exploration of transformative learning in Chapter 5 on the GKI endogenous model.

⁸ See Chapter 5 for a detailed description and discussion of what the GKI is.

constant communication, using ubiquitous technologies, with the team in Zambia and the United States of America (USA).

It is normal that some will have reasons to criticize this research both in its own right and as action research given my deep involvement with GKI. For instance, it would not be out of place for someone to imagine that like all action research, this study pressured me and the participants to produce immediate and practical research findings and in the process this may have led to scant attention being paid to methodological rigor. Besides, rapid appraisal techniques, such as the local interviews I conducted, successive workshops, conferences and meetings, may have equally been set up to elicit views and perceptions and to formulate a plan of action that suits my study. This possible flaw was addressed in this study by the fact that GKI is a lifelong project. So, the goals of this study are part of an ongoing process and this dissertation only reports, and contributes to, a segment of the process. So, there was no pressure on GKI to produce any results for purposes of this research or vice versa. Further, this research was well integrated in the GKI processes. The workshops, meetings and conferences that were used for planning, reflecting and data collection were organically GKI in nature. They had been going on and are still happening after this study. The only aspect that was arranged solely for this study were the personal interviews. Even then, the triangulation employed – literature, participatory observations and

personal diary, and interviews – helped address any weaknesses that would arise in such an arrangement.

Action research is also known to be a time-consuming process. This is true for this research. Nonetheless, this did not serve my study negatively. It strengthened it because it gave me time to develop an understanding with each of the participants and the context of my study. Even more, this study was not a typical academic doctoral study. By this I mean I did not think and plan about my study after I enrolled into the university. I planned my study, how and what I wanted to study before becoming a doctoral student. It is this personal plan that determined what sort of program to enroll into and what courses I took. The program of study served my needs and not vice versa. Also, I did not plan my study because of the desire to graduate within the confines of academic schedules. My study is real. It is a cause to which I have dedicated my life and would like to see real change in my society, both in short and long term. Thus, even after this study, I am working with GKI.

Other critics would suggest that the findings of my action research are limited in their applicability to the Zambian situation and cannot be generalized across Africa or other low resourced countries. In fact this criticism highlights the essence and strength of endogenous approaches. Research should not be used to produce “cook books” because people and their social contexts are not duplicates one of the other. Suffice to say that while the findings are not

generalizable, the lessons that can be learnt from this study are not limited to Zambia.

The overarching critique that would come especially after what I have explained is the objectivity and validity of my study, firstly, because I am an interested party and, secondly, my development of this study begun before, during and after my doctoral coursework. Some would call this “on the job training” study. What would be of interest to note here is that although I am one of the founders and designers of GKI, I did not become fully aware and conscious of the meaning of the endogenous values aims and ideas of GKI until I embodied them in practice. Therefore, I cannot possibly imagine that an outsider would manage to access fully such experiential insights and values of practice than I, the GKI practitioner, managed to bring out through this study. The weakness of the “on the job training”, particularly the fact that I frequently explored different research methods and methodologies while I had already started researching on and about GKI before coming to a conclusion about what would constitute adequate research methods, cannot be overlooked. To some extent, this unreliability is inevitable. But the main question is whether or not the data is verifiable and reliable and was I, as the researcher, committed to rigorous examination and critique of my own practice. It is in fact such commitment and desire to have verifiable reliable data that facilitated this “on job training” for my study. Outsiders to the GKI process were involved in the critique of this

dissertation particularly through the dissertation committee. The Chair of my dissertation defense committee for example was not a member of the GKI. This dissertation, particularly my voice as the participant researcher, was sought after and made to come out clearly through outsiders' points of view because even if I was aware of the need to make my voice explicit, due to the academic politics of methodological understanding that my initial doctoral dissertation committee had, I had to silence my voice where possible.

Nonetheless, I do not try to claim that this dissertation maintains absolute objectivity as to the conclusions. Rather, it is a study in a process that is ongoing and in which I am a participant and an interested partner. I also have an opinion. Objectivity is a profound epistemological question that will forever trouble the world: Is there such a thing as objective knowledge of practice, or is it always an individual's personal construct? The reader will thus find that some of the concepts and their definitions, interpretations and applications in this study do not reflect the collective view of either the whole GKI network or endogenous theorists. They are my own constructs. I tried, however, as much as possible to avoid personal constructs to overshadow this project by making long quotations particularly in Chapters 6, 7 and 8. I present the quotations, from the interviews as reconstructed narratives so that the voice of the participants is strengthened, and the merged horizons of my interviewees and myself as co-researchers can be unmistakably visible.

Methods of the Inquiry

I employed a mixed methods inquiry strategy that supports the exploratory and descriptive nature of research to collect data. Three methods were triangulated⁹: documentary analysis, personal diaries derived from participatory observation and oral interviews. For each of these methods, I do not intend to give an in-depth exposition or attempt to demonstrate their applicability to those who are not familiar with them or are just skeptical. These tasks have been ably dealt with elsewhere (Platt, 1981; Scott, 1990; Mogalakwe, 2006; Foddy, 1993; Kvale, 1996). Here, I just give a brief description then focus on explaining how I employed each one of the methods in gathering data with respect to the objectives of my study.

Documentary Analysis

This is a form of qualitative research in which documents that contain information of the phenomenon being studied are selected, categorized, investigated and interpreted, acknowledging both their strengths and weaknesses, by the researcher to give voice and meaning to the study (Bailey 1994; Payne & Payne, 2004). In handling documentary sources, quality control is vital,

⁹ Triangulation is the use of different data *sources*, methods of collecting it and theoretical lens of looking at it in order to increase the validity of a study. It allows for comparative gaining of insight into different perspectives of the issue at hand and to determine areas of agreement as well as areas of divergence. Although a triangulation exercise may yield convergent findings, this doesn't mean that the findings are unquestionable. To minimize this flaw, the findings of a study should be compared with related studies in literature (Webb, Campbell, Schwartz & Sechrest, 1966).

particularly to ensure authenticity, credibility, representativeness and meaning (Scott, 1990). *Authenticity* involves ascertaining the legitimacy and excellence of the source of the document. *Credibility* refers to whether the document is archetypal of its kind. *Representativeness* requires establishing how the consulted documents are representative of the totality of the relevant documents. And *meaning* is about the clarity and comprehensiveness of the sources and the documents (Scott, 1990; Mogalakwe, 2006). To achieve this, I considered two core categories of documentary sources. Published documents in the form of books and academic journals and organizational documents of the GKI. I complemented this with some general surfing on the internet. Such surfing, however, was only for insights and to randomly check if there was anything relevant in the public domain that is emerging in relation to my study.

Published Journals and Books

For journals and books, I specifically considered those that are peer reviewed. This included journal articles, books and newspapers focused on higher education in Africa. Such data sources as Google Books and Google Scholar, Amazon.com, Chronicles of Higher Education, Journal of Higher Education in Africa (CODESRIA), Education Resources Information Centre (ERIC), Journal of Computer Assisted Learning (EBSCOhost-PDC), SpringerLink and Zambian local newspapers including the Daily Mail, The Post and Lusaka Times were consulted. The general World Wide Web was surfed for

working papers, conference presentations, and papers in progress. Key words were used to search for documents; words such as: “higher education in Africa”, “endogenous education”, “Ubuntu education” and “learning as complex adaptive”. The searched documents were presented in the form of full text and were sorted out using document analysis of the key words. Repeated titles, authors, journals and uncompleted articles were screened out. And documents not written in English as well as those which repeatedly appear in different years or different journals, for example, were deleted. Further, the body of documents was examined to determine which one might be relevant to the specific questions. Any evidence to any of the research questions was culled, marked and categorized. Once the relevant information was categorized, it was synthesized with the interview questions to determine if it fitted a pattern that helped answer the research questions.

Organizational Documents

Under this category I searched for documentation of, and about, GKI. Documents about GKI were found in three places. The first place was organizational public web links which included two public websites (www.gkinstitute.com; www.gkalinks.org), the GKI YouTube channel and Facebook page. The second place was the intranet. The GKI was given Google official education status in 2012 which accorded it unlimited intranet space for institutional work. From the intranet, I accessed working groups for sub projects

including documents, discussions and internal web sites; minutes of GKI meetings, official documents (such as MOUs, linkages with other institutions such as UNZA and the Zambian Ministry of Education), informal documents for various purposes, powerpoint presentations, working papers, project grant reports and proposals, business plans and budgets, curriculum plans and contents, membership documentation, international forum (Lusaka and Seoul) appraisals and students' community reports. The intranet also gave me access to the GKI student website. The student website holds GKI curriculum and student information.

From the GKI documents I was particularly interested in those containing information related to the structure of the GKI, sources of funding, community engagement, student enrolment and progression, local and global institutional linkages, and evaluation reports.

On the whole, documentary sources were used to answer specific research question numbers one and two that sought to establish the elements that make up an endogenous university education system and which elements the GKI was designed to follow. Chapters three and four detail and discuss this literature. Literature on the state of university education in Africa was then reviewed using the endogenous framework which I detail in the later sections of this chapter. The review of literature on Africa's university education was examined both historically and contemporaneously to assess what endogenous

precepts emerge. Although such precepts do not, in and of themselves, fully account for the nature and condition of Africa's university education system, they, in no small measure, showed that the perilous state of any university education system in Africa is a result of a lack of, or little, endogenous principles being employed in the system.

Further, the literature on Zambia's university education system was reviewed as a process of narrowing down the study to focus on the context of the prototype I observed. This literature was reviewed and revised along with any specific data that was gleaned in the process of interviews. The question that I asked here is whether or not and to what extent Zambia's university education system is reflective of the situation of the broader picture of university education in Africa and what unique features, if any, are specific to Zambia.

Furthermore, I reviewed literature on the GKI to establish which endogenous elements constituted its system (Question 2), what was recorded as the success of the GKI (Question 3) and lessons that were being documented (Question 4). Although the GKI was built on a different (perhaps extended) set of endogenous precepts, at the very least, the question was addressed as to how and what kind of an endogenous university education system the GKI was designed to be.

Oral Interviews

All my interviews were conducted once with each participant. But before the interview, two things were done. Firstly I emailed the interviewee. The email contained an abstract of my study which outlined what the study is all about. Interview questions were also emailed. Further, the email sought the consent of the participant to be interviewed and the possible times the interview could be conducted. When consent was granted, I made a call to the participant. The call was designed to achieve three main goals: to put the interviewee at ease while also explaining fully and clearly in what ways I was hoping to have the interview conducted; to begin to sketch in detail the interviewee's main areas of interest in the interview, motivations and history in the GKI; and to allow me an opportunity to decide how to approach the interview as scheduled. The main interview was typically conversational in nature. My research questions were not structured¹⁰ in order to allow for the emergence of further ideas, interviewees' own perspectives, and to gain insight into what the interviewees considered relevant and important. So, I used both semi-structured and unstructured questions. This means that a degree of structure was used (see interview guide questions in Appendix 1) but there was also plenty of room for me to follow up on issues I found more useful and for the interviewees to pursue topics that were of particular interest to them (Drever, 1995).

¹⁰ Structured interviews are typically inflexible and standardize the questions and responses.

Basically, the interview had two sections. In the first section, I asked the interviewees how they thought GKI was designed as an endogenous university, what makes this design unique, the chances of it being sustainable in Zambia and what evidence one can cite and show to validate their views. Data culled from this section primarily addressed the parts of research questions two, three and four that sought to establish how GKI was endogenously designed, what endogenous elements were so far successfully in place and lessons that could be learnt. In the second section, I sought to know the interviewees' role in GKI, what motivated them, the incentives they had in being part of GKI, the contribution they thought they were making and to whom, the challenges they faced in making such contribution and how they addressed those challenges. This section helped to establish whether or not the GKI incentive system was endogenously derived (based on knowledge) and what the GKI members felt about this system. The section also helped to establish the challenges GKI was confronted with and how those challenges were being tackled. Each interview was recorded (permission was sought from the interviewee to record) and took about 90 minutes to complete.

Selection of Participants

A total of twenty-three participants were interviewed in this study. The interviews were conducted in two countries, Zambia and the Republic of Korea. In Zambia, nineteen interviews were conducted in four locations namely, Lusaka,

Chongwe, Chibombo and Kitwe. A total of four interviews were done in Seoul, Korea.

All these participants were purposively drawn and interviewed because they had at an identifiable point in time participated in the GKI activities between 2011 when GKI was launched and 2015 when this study was concluded.

*Anonymity and confidentiality*¹¹

In this research, I was faced with a challenge of anonymity and confidentiality of participants. This is because research participants held different views about the desirability of anonymization and the extent to which this anonymization was to be secured. While all of them agreed to have their institution of affiliation, professional background and specialization, role or position in GKI revealed and usage of photos that show their faces,¹² they considerably differed on the anonymity of their names. From the total of twenty

¹¹ It is important to note that issues of anonymity and confidentiality remains a problematic matter in social research particularly in terms of intricacies a researcher faces in how far to take anonymization of individuals in order for them not to be identifiable, given that research findings may be presented to a variety of audiences, including members of participants' communities. Also, there is the problem of how to balance differing views of research participants about the desirability of anonymization: those participants who wish to be identifiable and those who prefer to remain anonymous. Further, is "whether or not to attempt the anonymization of the location of the research, which may be adjudged more or less practical or impractical (depending on its distinctiveness) and more or less desirable (depending on its importance in providing the social context of the analysis that is being developed)" (Crow & Wiles, 2008). I do not intend to discuss these issues and their related research debates. They have been well handled elsewhere.

¹² This information about majority of the participants is displayed on GKI website.

three interviewees, two wanted to be identified by their name, five did not care whether or not they were identified by their actual names, three were not sure and twelve preferred that their names remain anonymous. Given that part of my ethical responsibility as a researcher is to assure participants that every effort will be made to ensure that the data they provide cannot be traced back to them in reports, presentations and other forms of dissemination, I decided to make all names of the participants anonymous apart from one.¹³ Thus, apart from one interviewee, all participants have been given pseudonyms.

GKI Professors

These are expert volunteers at GKI from three universities: the University of Zambia (UNZA), Seoul National University (SNU) in Korea and the Georgia State University (GSU) in the US. A total sample of two professors from each university was purposely drawn. These were professors that were known to have been fully engaged with the GKI processes.

Seoul National University (SNU)

SNU is Korea's prestigious and first national university that has a tradition of standing up for democracy and peace on the Korean peninsula. It has

¹³ I have made the name of Lynn Ilon known not only because she had no problems having her name revealed. She is one of the co-founders of the Global Knowledge Institute, the endogenous university that this study is focused on. Capturing her name without hiding enhance my freedom to bring out her voice and make it easy for the reader to quickly trace some of her writings published elsewhere which may be of interest such as her forthcoming book: "The Cost of Not Educating the World's Poor" by Routledge.

a student population of about 30,000 and offers 83 undergraduate degree programs and 99 graduate school programs. SNU is Korea's leading research university and was linked to GKI activities through the founding of GKI on its grounds by people who were part of the SNU community and to a greater extent the growth and expansion of GKI until the time this study had been engineered from there. I interviewed two professors from SNU: Lynn Ilon and another professor I have named as SNU Professor 1. I also interviewed one SNU graduate student. The bios of these are hereunder except for the student. I have placed his bio under the GKI managers for the reason that he is not a professor and he was involved in GKI as a manager.

Lynn Ilon

She can be aptly described as the mother of GKI. Lynn Ilon is a full professor in SNU's College of Education. She is a knowledge economist with a specialization in international development. She has lectured and consulted in over 20 countries for the World Bank, Harvard University, the United Nations, Educational Testing Service, the U.S. Agency for International Development, Department for International Development (UK), the Asian Development Bank, the African Development Bank, UNESCO, several national governments and their agencies and several local and global NGOs. She has lived in various parts of the world including the Middle East, Pacific Islands, North America, various countries in Africa, South Asia and now in Korea. Ilon holds degrees in

International Development Education (Ph.D), Economics (M.S.), Educational Research and Statistics (M.S.) and Anthropology (B.A.). She is involved in almost all areas of GKI being the chief co-architect of the concept and name under which GKI is incorporated in Zambia, the Global Knowledge Alliance (GKA) (see Chapter 5).

SNU Professor 1

He is a professor of Technology Management, Economics and Policy at the College of Engineering, Seoul National University. Prior to this, he taught computer networks at the University of California at Berkeley, worked as a Senior Scientist at Hewlett-Packard Labs, and has been a postdoc at EECS and ICSI of UC Berkeley. During that time he worked on international research projects focusing on the pricing of network services. SNU Professor 1 received his B.Sc. degree, his M.Sc. degree (1993), and his Ph.D. (1996) from the University of Erlangen-Nürnberg, Germany. His current research centers on the economics of Internet services and Internet infrastructures, integrating economic models into distributed systems. He also served on several European, US American (National Science Foundation), and national panels for evaluating research proposals on next generation networks and emerging technologies. He was involved with GKI research and global growth strategy.

I interviewed SNU Professor 1 and Lynn Ilon in Seoul during morning hours but on different days and settings. The interview with SNU Professor 1

was conducted from his office at SNU while the one with Lynn Ilon from her faculty apartment.

The University of Zambia

This is the leading national university in Zambia founded in 1966. It is located in the city of Lusaka and offers over 157 undergraduate and graduate degrees in various fields. It has a student population of more than 25,000 from various ethnic groupings and diverse cultural backgrounds. UNZA was linked to GKI through four people including myself. I have labelled two of these as UNZA Professor 1 and 2. The other person who linked UNZA and GKI is under GKI managers, specifically named as Staff 2. Otherwise, see details of the GKI and UNZA linkage in Chapter 5.

UNZA Professor 1

He is a writer, an academic member of staff and a researcher in the faculty of education at UNZA. He is multitalented in varying fields, and is a media personality, film maker, teacher, and a business oriented team player. He is currently a Pre-doctoral candidate in Applied Linguistics, Literacy and Cultural Studies. He has Master of Education in Literacy and Learning and Bachelor of Arts with Education degrees from the University of Zambia. He is part of the GKI Zambia local network and is largely involved with GKI in curriculum development, management planning, teaching, research and supervision of students' academic work. We met with UNZA Professor 1 during lunch hour for the interview at Manda Hill, Lusaka.

UNZA Professor 2

He teaches literature, theatre and film at the University of Zambia. He is a PhD candidate studying Dialogism in Zambian literature. UNZA Professor 2 has written and made several conference and seminar presentations on literature, culture and the arts while working with both local and international organizations including the United Nations Education, Science and Culture Organization (UNESCO) Zambia National Commission, Helsinki Polytechnic University in Finland, the Australian Institute of Business and Technology (AIBT), the British Council, IDP Australia and the University of Cambridge. His major interests lie in literary theory and criticism, cultural and performance studies, and stylistics. He has degrees at bachelor and masters levels in Arts with Education and Literature from the University of Zambia. At GKI, UNZA Professor 2 is involved with curriculum development, management planning, teaching, research and supervision of students' academic work. I interviewed him from his office between 7pm and 8pm.

Georgia State University

Georgia State University is centered in the antique financial hub of downtown Atlanta. It is an industrious urban public university that has more than 32,000 students from widely diverse backgrounds linked to the city's business, government, nonprofit and cultural organizations through its 250 undergraduate and graduate degree programs in more than 100 fields of study in its eight colleges and schools. The university became linked with GKI in 2013 through

two of its associate professors that work with the research and curriculum component of GKI. They also teach in the GKI programs and have been in Zambia to conduct workshops, lectures and conferences with students and other GKI members. I have named the two as GSU Professor 1 and 2.

GSU Professor 1

She serves as the associate dean for school, community and international partnerships in the GSU's College of Education. Previously, she served as coordinator of the Low Incidence Disabilities Unit of the Division for Exceptional Students in the Georgia Department of Education; director of educator preparation for the Georgia Professional Standards Commission; and director of the Program for Exceptional Children with the Atlanta Public Schools. She currently serves as the principal investigator for the Network for Enhancing Teacher Quality (NET-Q), a collection of projects funded by a \$13.5 million Teacher Quality Partnership grant from the U.S. Department of Education designed to prepare teachers for the demands of teaching high-need subjects in high-need schools. She also works to sustain the COE's professional development school network, and facilitates international outreach and partnerships. At GKI she is in the curriculum and pedagogy group. So, she

teaches, supervises students and provides research consultancy and develop the GKI curriculum. She is among the core GKI members.¹⁴

GSU Professor 2

She is Director of the Educational Research Bureau in the College of Education at GSU. She is a research methodologist with school leadership credentials. Her interests are in the implementation and evaluation of the Professional Development School Model in both the U.S. and South Africa and the model's impact on academic achievement in high needs urban schools. GSU Professor 2 has worked with Ela Gandhi and the Gandhi Development Trust, Durban University of Technology and Stellenbosch University. She holds degrees in Educational Policy Studies – Research, Measurement and Statistics (Ph.D.), Educational Leadership & Professional Counseling (M.S.) and Music (B.M.). She involved with GKI pedagogy and curriculum development, research, teaching and student supervision. She is one of the core people in GKI.

I interviewed GSU Professors 1 and 2 from the roof top of the Protea Hotel Lusaka Tower. This was after spending 5 days in Chibombo with the GKI students conducting workshops and lectures.

¹⁴ Membership in GKI is cobwebbed: there is the core group or nucleus and innovation groups. To belong to GKI, one has to first belong to an innovation group such as curriculum and pedagogy or research. Depending on the commitment and dedication of the person, the innovation group recommends the person for membership into the core group. Nonetheless, even if one becomes a core member, to maintain their membership, they have to actively belong to an innovation group.

GKI Managers

The participants I categorized as GKI managers are members of the GKI that were running daily operational activities of the GKI in Zambia virtually and physically. The daily operations were at three levels: policy, finance and management. Policy level involved putting in place and monitoring ideals and procedures that aligned with GKI's overall goals and objectives, implemented standards of performance, research policies and procedures and made policy changes as necessary in consultation with members involved to ensure policies adhered to national regulations, insurance requirements and legalities.

The finance aspect included development of financial budgets for the GKI Learning Centre and other activities such as registration and incorporation of the institute with the Registrar of Societies in Zambia. There was also frequent review of GKI data, production and activity reports, financial statements and other information to ensure financial goals were achieved. Thus, managers sought ways of reducing operational costs and planned the long-term financial goals of GKI. The management component involved directing all the human resources and management activities of GKI and determining the staff needed to accomplish goals, select and contract new human resources and assign responsibilities to the entire staff. The academic calendar, curriculum development timelines, field research and community engagement activities were all done under their management. Under this category, GKI managers, I interviewed five people and I have named them as Staff 1, 2, 3, 4, and 5.

Staff 1

He is a development economist with wide ranging professional experience of over 8 years. His experience covers many aspects of development including agriculture, monitoring and evaluation, human development, poverty, social impact assessment, HIV and AIDS, social security and vulnerability assessment, and water and sanitation, to mention a few. He has conducted many studies and has a track record in human resource mobilization, supervision and liaising with a wide range of actors. He has worked with many SMEs at various levels including capacity building and facilitation. He has worked with many non-governmental organizations and other development partners (organizations) including USAID, the World Bank, Food and Agriculture Organization, and the DFID among others. Staff 1 is a key associate in Nangoma Consulting Limited and a GKI core member.

I interviewed Staff 1 at noon at the reception of place of work for an organization designated by the Government of the Republic of Zambia as the accountable entity to implement the Lusaka Water Supply, Sanitation and Drainage (LWSSD) Project, funded through the Compact Agreement signed between the Millennium Challenge Corporation and the government of the Republic of Zambia. Staff 1 is a GKI core member and the Executive Director. He was also involved in the GKI teaching and research activities.

Staff 2

He is a medical virologist with extensive experience in clinical and community medicine and program management. He has worked as a resident Medical doctor for hospitals in both the rural and urban settings in Zambia. In addition, he has experience working with community and hospital based HIV/AIDS programs in the southern, Central, North Western and Lusaka provinces of Zambia for over eleven years. Staff 2 has experience in conducting surveys and research. He has been part of a team working on a Public Private Sector Partnership, providing HIV/AIDS care to under-served rural communities through mobile HIV/AIDS clinics. He holds degrees in Biological Sciences-Virology (MSc.) Science Medicine and Surgery (MBChB) Human Biology (BSc) and Biology and Chemistry (BSc).

Staff 2 was largely responsible for the legalities of GKI, research supervision of students and general management. To register any entity like GKI in Zambia requires a list of Board Members. Staff 2 was a member of and chairperson to the GKI Board.¹⁵ I interviewed him in the afternoon in a Parking Lot while standing beside his car.

¹⁵ Other Board Members are Staff 1, UNZA Professor 2, Lynn Ilon, myself and a legal expert from the Nchito and Nchito Advocates, a full service law firm based in Lusaka, the capital city of Zambia. The firm is engaged in providing services in diverse areas of law inter alia, conveyancing, commercial transactions, civil and criminal litigation, enforcement of securities, insolvency, company secretarial, arbitration and corporate restructuring.

Staff 3

She is a Zambian educator under the Ministry of Education of the Government Republic of Zambia. She teaches English language and religious studies at Kabulonga Girls Secondary School. Having studied and worked in Zambia and abroad particularly in Finland and Norway, she possess work experience in imparting knowledge to people of different age groups, social classes, creed and nationality. She is a holder of a Master of Education in International Education and Development degree from the University of Oslo and has a Bachelor of Arts with Education from UNZA. Staff 3 was involved with GKI as Manager Academics. She participated mainly in the scheduling of academic and research activities, as well as the filing of student records. I interviewed her from her family house just after sharing a lunch she had prepared.

Staff 4

He is a PhD research student at SNU in the College of Education. He has Master's degrees in Social Education, International Studies and an MBA (Master of Business Administration), and Bachelor's degree in Political Science. He specializes in HRD, international development and business management. He was a business analyst at the LG Electronics Corporation (France) and conducted international development projects at KDS (Korea Institute for Development Strategy), KRIVET (Korea Research Institute for Vocational Education and Training), UNESCO - IBE (International Bureau of Education, Switzerland) and KERIS (Korea Education & Research Information Service). He has supported or

managed international HRD projects for the Ministry of Education Korea, KOICA (Korea International Cooperation Agency) and UNESCO including Sri-Lanka, Mongolia, Laos, Pakistan and the Arab region. In GKI he is involved in research and financial management and budgeting. He is a GKI core member. I interviewed Staff 4 from a coffee shop, Pascucci, located at SNU College of Education.

Staff 5

She was involved with GKI as Manager Finance and helped in the establishment of the GKI local financial system. She was a volunteer from a Zambian local NGO called Crystal Consulting where she is the Chief Accountant. I interviewed Staff 5 at GKI's Executive Director's residence (Staff 1) wherefrom, on the day of the interview, she was working on the GKI financial reports.

GKI Students

GKI had a total of twelve students. Nine were undergraduates while three were masters candidates. All the nine undergraduate students were also working as teachers at two secondary schools that GKI is working with and through in a bid to having its graduate program have a practical integrated community research system that makes its coursework applied in real time. From each school, there were originally five teachers who got enrolled at GKI. At the time of the interviews, Chibombo had only four teachers. The fifth one had withdrawn incognito. So, in Chibombo I only had four interviews while in Chongwe I

conducted five of them. I interviewed the teachers in two places: at their school premises and in their homes. Those I interviewed from their school premises had availed themselves for the interview during free periods in their working schedule (7am to 4pm). Then, the interviews that were done from homes were with those teachers who preferred to be interviewed after working hours (4pm to 6pm) and wanted to share a cultural meal or our own locally brewed drink, *Munkoyo* or *Chibwantu*.¹⁶

Chongwe Secondary School

Chongwe Secondary School is a government run learning institution with grades eight to twelve classes. It is located in a district township of Chongwe about 45 kilometres to the east of Lusaka, the capital city of Zambia. The school has an average 18:1 student teacher ratio and the class sizes ranges from 40 to 100 students in one class, not grade. It is a mixed school that is it has male and female students and boarding and day school facilities. Boarding facilities are only available to male students. Students at this school come from middle and low income households. The school is surrounded by a predominantly peri-urban population – urbanizing community. The communities in the area survive on subsistence farming and small scale businesses. The teachers registered as students at GKI from this school are four males and one female. I have called the teachers: Chongwe 1,2, 3 and 4.

¹⁶ This drink is made out of special herbs, pounded corn grains and flour, water and with either honey or sugar for sweetening.

Chongwe 1

He graduated from UNZA with a Bachelor of Arts with Education (BA.Ed.). At UNZA he majored in history and minored in religious education. It is these same subjects he now teaches to grades 9, 11 and 12 students. He is 31 years old, and has been teaching for 3 consecutive years. The age range of his students is 13 to 20 years old.

Chongwe 2

She has a Bachelor of Arts with Education (BA.Ed) from the UNZA where she majored in history. She teaches history at grades 10, 11 and 12 levels. Aged 27 years old, she has been a teacher for 4 years. The age range of her students is 14 to 21 years.

Chongwe 3

He earned his undergraduate degree from the International School of Sports and Physical Education, Havana, Cuba where he worked for about 2 years before returning to Zambia where he has been teaching for 3 years now. He teaches physical education, sports and biology to grades 10, 11 and 12. The age range of his students is 15 and 25 years.

Chongwe 4

He holds an educational undergraduate degree major in mathematics with a minor in civic education. He teaches mathematics and civic education from grades 10 to 12. The year 2015 marked his first 1 year in the teaching profession. He is aged 30 and his classes have learners aged between 14 and 20 years old.

Chongwe 5

He is an experienced teacher who has been teaching for 24 years. He is 49 years old. When I was in high school at Chongwe, he was actually teaching at this school. He did his primary teaching certificate from Chazwanga Teacher's College in southern Zambia and later studied for his Diploma in teaching at Nkrumah Teacher's College then (now it is Nkrumah University) located in Zambia's Central Province. His teaching subjects are French and Civic Education. He teaches grades 9 to 11. The age range of his learners is 13 to 18 years.

Chibombo Secondary School

Chibombo Secondary School is located 97 kilometers to the north of Lusaka. It is in Chibombo District of the Central Province of Zambia. This school is government run offering grades 8 to 12 classes. Like Chongwe it has female and male students who are either boarders or day scholars. However, for Chibombo the boarding facilities are only for females. The pupil teacher ratio and size of classes are similar to Chongwe, 18:1 and 40 to 100 students respectively. Students at this school come from middle and low income households. The school is surrounded by a predominantly rural population that survive on subsistence farming and small scale businesses. All the teachers from Chibombo Secondary School who are GKI students are females. I have labelled them as Chibombo 1, 2, 3, and 4.

Chibombo 1

She has a BAEd from UNZA with a major in mathematics and minor in geography. She only teaches mathematics to grades 10, 11 and 12. The age range of her classes is 15 to 20 years. She has been teaching for over 15 years and she is now aged 41.

Chibombo 2

She graduated from UNZA with a Bachelor of Education in Special Education and minored in history. She is aged 28 and teaches history from grade 10 to 12. She has been teaching for 3 years and the age range of her students is between 14 and 23 years old.

Chibombo 3

She is a graduate of UNZA with a Bachelor of Education with Science (BEdSc) degree. She majored in Biology and minored in Chemistry. It is now 9 years since she started teaching biology and chemistry subjects to grades 10, 11 and 12. Her classes have an age range of 13 to 20 years old. She is aged 30.

Chibombo 4

She is a Zambian based Human Resource Consultant and Educator, with specialization in training, capacity development, English as a Foreign Language (EFL) learning, and curriculum development. With vast knowledge and work experience in various areas such as performance management and curriculum design, she has worked successfully with diverse age groups and ethnicities in different institutions including San University Zambia where she is a board member and syllabus designer, and the Government of Zambia Ministry of

Education as secondary school educator. Chibombo 5 has a Master's degree in Human Resource Management from the Copperbelt University and holds a Bachelor of Arts with Education from UNZA. She is aged 29 and teaches English and History subjects from grades 10 to 12.

Masters Students

I interviewed GKI masters students from the coffee shops at the shopping mall in Lusaka called Manda Hill. The selection of this spot was preferred by the interviewees for their convenience as it is centrally located and relaxing. Of the three students, one was female and two males. The female student was not readily available for interviews due to marriage commitments. She had just wedded and was on her honeymoon. So, I only interviewed the two male students on different days. I have labelled them Master 1 and 2.

Master 1

He is a graduating student in Applied Ethics from UNZA. Master 1 is an Applied Ethicist with a specialization in Public Health Ethics. He has worked in both the public and private sectors. He has tutored and lectured at UNZA. At GKI he is not just a student but a volunteer technical and administrative assistant. Master 1 is a student representative at GKI. He Holds a Bachelor of Arts in Library and Information Studies (BALIS) from UNZA.

Master 2

Master 2 is a writer and board member for African Peace Magazine, a company based in Bedfordshire, United Kingdom. He writes on Development,

Economics and Social warfare of societies. He has a number of papers written and presented to audiences like the Zambia Engineering Institute Annual symposium and other platforms. He is accredited to a number of bodies like the IODF (Institute of Organizational Development Facilitators), and the Engineering Institute of Zambia. He is also a facilitator at Ahava Zambia, a Zambian based company specialising in management training. He holds a Bachelor's degree in Forestry (Wood Science and technology) from the Copperbelt University, Zambia's second leading public university.

Corporate Society

I sampled a participant from the corporate world, specifically, an employee at Samsung Electronics in Korea. I call him Corporate 1. He was involved with GKI in its earliest stages. We were together as graduate students at SNU. Corporate 1 is a Global MBA and senior associate at Samsung Corporation Headquarters in Seoul. He has a corporate finance background following his study of Corporate Finance at the University of Dar es Salaam. He worked with Standard Chartered Bank in Tanzania as an Assistant Relationship Manager. I interviewed him from the Balcony of his house in Itaewon, Korea.

Local Community

I interviewed a community leader from Chibombo District who is a ward¹⁷ councilor. He is also an entrepreneur and farmer. He runs a shop and cooking oil business. He processes cooking oil from the sunflower he grows and buys from local farmers. The councilor was interviewed as the gatekeeper to his community and community guide for the GKI masters students. The GKI masters students go to his community to do their field work. His community was actually the first one GKI students ever visited for field research. I was present during the first visit to this community and therefore had known the counselor since then. My interview with him was focused on how he, the community and the GKI students were working. I interviewed him from his residences very early in the morning between 5am and 7am. The interview was scheduled this early because he had other political engagements scheduled over the course of the day and throughout the week I needed to interview him.

Personal Diaries: Participant Observations

Apart from the documentary analysis and oral interviews, I employed participatory observation to collect data. As a data collection method, participant observation gave me, as a researcher, a rare opportunity to use all the five senses to systematically make a “photographic” record that describes events, behaviour

¹⁷ Zambia is divided into constituencies and wards for political representation. Constituencies are represented by Members of Parliament (MPs). Political representatives at ward level are called counselors and these sit on the municipal council of the District – the smallest unit just after the Province which is the major regional division of the country for government administration.

and artifacts in the socioeconomic and political setting of my study (Kawulich, 2005; Erlandson, Harris, Skipper, & Allen, 1993). I became an active integral part of the natural and cultural world of GKI. This exposure to, and engagement in, the routines of the participants, GKI members, in their context demanded my active observance, skillful informal interviewing and field note taking skills, and sharp memory (DeWalt & DeWalt, 2002, p. vii). Accordingly, I employed personal diaries, two reflexive journals, to record what I observed, my reflections and reflexivity. My reflexive journals ensured that my lived experiences, vantage points, feelings, thoughts, reflections and reflexivity can visibly be an acknowledged part of the research. I believe by doing so, I managed to create transparency and my own bias and objectivity that come with critical self-reflection to be known clearly.

I had two reflexive journals. The first one was my pre-doctoral diary in which is documented much of my thoughts about higher education from my undergraduate days. In this diary, I wrote my thoughts in epistolary format and poetics. Epistolary and poetics means I wrote my reflections in form of letters and poems to my “would be bride”. The title of my pre-doctoral diary is “and Love Became Letters”. The would-be bride in this diary is Africa, the land of my birth. I search for this bride in and with this diary, a bride that is an African home and African in mode of thought, manner of conduct and outlook, an indigenous personality that is endogenously cultivated in order to be of value to

the rest of the world. This search stemmed from my encounter in the last years of my high school with Pan African writings of African intellectuals such as W.E.B. Du Bois, Malcolm X, Marcus Garvey, Ahmed Sekou Toure, Haile Selassie, and Kwame Nkrumah. On to this list are the writings of Zambia's first Republican President, Kenneth David Kaunda who evolved the *Zambian Ubuntu* philosophy called *Zambianism* or *Zambian Humanism* to build a unified nation whose progress was tied to the rest of Africa and Africans at home and abroad. In my undergraduate days, notable writings that furthered my research came from William Chancellor, especially his seminary book: *Destruction of Black Civilization: Great Issues of a Race From 4500 BC To 2000 AD*, Woodson G. Carter's *Miseducation of a Negro* and the many lectures of John Henrik Clarke. I will not go into details of describing who each of these intellectuals is, and how their ideas helped me shape my own because their writings are readily available elsewhere for anybody who is curious to have an encounter with them. What is noteworthy is that their influence on me is reflected in this pre-doctoral diary which then captures my view and vision of education, what kind of education can education for the uplift of Africa be and what kind of consciousness, the mindset, such education should unleash into society. My analysis and discussions in this dissertation highly retain reflections from this diary.

The second reflexive journal is called a doctoral diary. The doctoral diary chronicled my experiences and research processes and practices as a doctoral

scholar and novice researcher. It contains my critical reflections on those processes and practices including records in the pre-doctoral diary. Such reflections helped me shape, unshape and reshape my study to such an extent that I revised not only my methodologies and methods, but the entire approach to the interviews, transcribing the interviews and presentation of my study on several occasions. In fact my study made four shifts that are complete in themselves which would be developed into separate doctoral topics unique from this one. In what follows, I describe the places where my participatory observations were made and the activities I was particularly involved in with GKI. These include classes, staff meetings, conferences, and community engagement activities. It is during my participatory observation in these spaces that my reflexive journals became indispensable.

Classes

I attended GKI classes for the academic programs it is running for the master's students and the teachers – undergraduate students. The classes for the master's students were conducted from the GKI learning center located in Lusaka. The class sessions were also held outside the center but resource centers of local Non-Governmental Organizations (NGOs) such as the Jesuit Centre for Theological Reflection (JCTR) and Crystal Consulting. For the teachers, the classes were held in their respective school boardrooms, libraries and computer laboratories. In these classes my main interest was the content of the curriculum,

the pedagogy, technology use, assessment, and student and professor roles. I participated in these classes from the day of their launch¹⁸ till now. This is because I volunteered to teach some of the courses particularly on Indigenous Knowledge Systems (IKS), Foundations of Education in a Knowledge Economy, and Education for Social Transformation. So, I did not only observe the practice of others but my own. These classes provided insights into establishing how the GKI was different from other learning systems in terms of the learning environment, academic freedom and lesson management; and what was in place so far and whether or not it is making progress.

Meetings

Having been integrated into the research, learning and management¹⁹ system of GKI, I took part in staff and student meetings in Zambia, Korea and the US. Attending meetings helped me observe and understand the power structures and management style, and listen to challenges through reports, debriefs and the discussions that took place. Many of the meetings took place in Korea and Zambia. I attended one meeting in the US when the team met during the 59th Annual Conference for the Comparative and International Education Society (CIES) in Washington DC, dubbed *Ubuntu: Reimagining a Humanist Education Globally*. At this conference, I presented the preliminary findings and

¹⁸ The master's program begun in August 2012. The undergraduate program was launched in August 2014.

¹⁹ I was involved at management level as Manager Operations between 2011 and 2012 and as Chief Learning Officer from 2013 onwards.

conclusions of this study under the title: *Ubuntu Sustainable Learning Ecosystem: A Zambian Prototype*. In Zambia, I attended a total of forty meetings between 2012 and 2015. While in Seoul, I had thirty meetings between 2011 and 2015. These meetings were scheduled fortnightly and monthly. There were several emergent and informal meetings in between. The meetings I have counted are those which everyone was asked to attend.

Conferences

Conferences have long been known to be used by action researchers. Initially developed by Eric Trist and Fred Emery as Search Conferences in the 1950s, this methodic tool has become widespread and variations have emerged, including the Interactive Strategic Planning by Dannemiller-Tyson, the Future Search Conference by Marvin Weisbord, Conference Model Redesign by Dick Axelrod's, the Open Space by Harrison Owen, and the Strategic Planning by ICA (Rouda 1995). The GKI conferences followed a process I present using an adapted format (see Table 1) from O'Brien's Search Conference prototype (O'Brien, 2001).

Between 2011 and 2015, GKI held five conferences. Three were held in Lusaka and two in Seoul, Korea. The participants were drawn from the three universities, SNU, UNZA and GSU. In the first conference held in 2011, Lusaka, there were only eight people: Lynn Ilon, GKI Staffs 1, 2, 4 and 5, Corporate 1, UNZA Professors 1 and 2 and myself. The second conference held in Lusaka,

2013, had thirty people. It involved GKI students and professors from UNZA, SNU and GSU.

Table 1: Learning Conference (adapted from O'Brien, 2001)

<i>Pre-conference process</i>	· set up Organising Group of local representatives
	· agree on process design and participants
	· use special interest groups (SIGs) for preparation
	· invitations, distribution of introductory materials
<i>Introductory plenary</i>	introductions, review objectives, outline process, introduce first stage
<i>SIGs session 1</i>	SCANNING THE ISSUE
	· past and present context
	· assess current situation
	· outline probable futures
<i>Presentation plenary</i>	reports from SIGs, discuss directions, introduce second stage
<i>SIGs session 2</i>	DESIRED FUTURES
	· long-range visions
	· alternative/preferred futures
<i>Presentation plenary</i>	reports, review progress, introduction to third stage
<i>SIGs session 3</i>	OPTIONS FOR CHANGE
	· constraints and opportunities
	· possible futures
<i>Presentation plenary</i>	reports, define strategic tasks / actions, select key tasks, form task groups (TAGs)
<i>SIGs sessions</i>	TASK GROUP MEETINGS
<i>Final plenary</i>	TAGs reports, discuss future contacts
<i>Post-conference process</i>	· report distributed
	· follow-up contacts
	· Advisory Group facilitates meetings of Task Groups
	· feedback on proposed actions
	· further search conferences
	· widen network
	· continuing evaluation of outcomes

The third conference was held in Seoul and about forty people were in attendance. Participants included SNU students, GKI staff and professors from SNU and GSU. Then there were twenty people in the fourth one (involving GKI students and GSU and UNZA professors). The fifth conference held in Seoul in

2015 had about forty participants involving GKI students and professors from UNZA, SNU and GSU. There were SNU students in attendance as well.

The themes that ran through the conferences encompassed all the different aspects of the Institute including its design, operations, successes, challenges, prospects and strategic plans. The conferences took about three to five days. The opening sessions always explained the issues on the agenda in their wider GKI contextual setting and established what each participant desired to be achieved by the end of the conference in dealing with those issues. My main roles in these conferences were that of a facilitator, organizer, catalyzer, observer, listener and synthesizer. The first session only listed the items and categorized them according to the Special Innovation Groups which were three: Curriculum and Pedagogy, Strategic and Planning and Student Network groups. Members in each group were free however to switch groups at any point for three main reasons. First was to allow continuous cross pollination of ideas. Second was to avoid others who may be interested in more than one group to feel constrained. Lastly, each participating delegation from the three universities – SNU, GSU and UNZA – had people joining different groups but it was thought necessary that each person should get a feel of what was going on in all the groups. Besides, I observed that of the three groups, the strategic and planning group stood out like the most prestigious among the three because its focus was more on the design of the whole institute, vision and mission including the long-

term desired future. Not only were these aspects required to be understood by everyone, but each member also needed to feel that they had a share and ownership of the ultimate direction of the institute. Therefore, some of the sessions of the Strategic and Planning group involved everyone from the other groups. The student network group focused on issues relating to brain networking of students, professors and researchers while the curriculum and pedagogy group, as its name suggests, dealt with the issues of the academic programs, research, teaching and course development.

The innovation group sessions discussed issues in greater depth and the composite picture they came up with was examined in the plenary sessions. It was interesting to realize how ideas and drawn frameworks from each group were so much in agreement. When all the submissions of the three groups had been considered, action plans, including identifying who was in charge of each task group were made. The conference processes were so enriching and provided a lot of insights. For example, between 2011 and 2013, it so happened that each time I was not in Zambia, many GKI operations would come to a halt. There was tremendous change after each conference that was held. The local leaders in their respective areas took more active roles and responsibility and manifested a feeling of being connected to everyone else.

It is noteworthy that unlike many conferences held by action researchers where the researcher comes and goes, in my case, I will remain working with

GKI and continue to facilitate dialogue and foster reflective analysis among the members, and provide them with periodic reports. Perhaps the first of the “great reports” is this dissertation.

Community Research Engagement

The community research engagement involved GKI students, staff and professors going to the two secondary schools – Chongwe and Chibombo – and into the surrounding community of Chibombo Secondary School for research work. I made five trips to the Chibombo community with the GKI masters students between 2012 and 2014. I visited the same community with GSU and SNU professors including GKI students and staff. I was on the research trips to the two secondary schools between 2014 and 2015 that totaled to fifteen.

During these research trips I was interested in analyzing the entire GKI community engagement process, unlike the traditional approach which involves researchers going into communities to use participants simply as “lab rats”, and then leaving. There were a lot of fascinating findings, which I discuss in Chapters 6, 7 and 8.

All my observations and the field notes (recorded in the doctoral diary) were compared, and analyzed along with information from the interviews and documents in the related categories for integration, and to see if other themes and categories emerged from the same which required some follow ups in the form of interviews.

Data Collection

I collected data in two main phases. The pre-doctoral phase and doctoral phase. The former phase was done before I proposed this study for approval by the university – SNU – college department and the research ethics committee. This phase was done based on my own interest and marked the process of formulating and designing the study. I built the pre-doctoral phase from the research for my master's thesis in 2011.²⁰ I thus consider my master's thesis as the foundation of this study. This phase ended after I presented my research proposal to the research ethics committee in 2014. The research ethics committee approved my study in August, 2014. It is in this month that the doctoral phase began and ended in April, 2015. Data was collected both physically as explained above and virtually. The virtual aspect involved follow ups on interviews using phone calls and social media, particularly WhatsApp, Skype and Gmail. Interviews were audio recorded using my smart phone, and the photos in this dissertation were also captured using the same phone.

Collected data were collated in folders on my computer database and backed up in my external hard drive. The folders were password protected. Data exchanged as text messages via Skype and WhatsApp were copied and pasted on word documents which I saved and stored as PDF files in the designated file

²⁰ My Master's Thesis researched into university leadership in social transformation of local communities. The focus was on leadership that comes through knowledge interfaces and linkages with local and global communities. You can access the full document on: <http://dspace.unza.zm:8080/xmlui/handle/123456789/3203>.

folders. I then deleted the exchanged messages on the social media platforms. For emails, I created a personal folder labeled “PhD Dissertation”. All exchanges regarding my research were stored in this folder. All these storage processes were done for security reasons as my phone or computer would sometimes be accessed by persons other than me.

Integration of data and overall analysis

As indicated in the dissertation layout in Chapter One, the literature review is part of the findings of this dissertation and give logic to my overall analysis and argument of the dissertation. The analysis strategy used to integrate and explore the data is the “constant comparative strategy” built on the theoretical lens of this study, that is, endogenous theory. The constant comparative is a method of research analysis for multi-data sources which begins early in the study and nearly completed by the end of data collection and leads to both descriptive and explanatory categories (Hancock & Algozzine, 2006; Lincoln & Guba, 1985). It involves breaking down the data into themes or discrete “units” and coding them into categories (Glaser and Strauss, 1967).

Two forms of categories generally arise from constant comparative analysis. Categories that make up the first form are those derived from the practices and language of the participants. This form is used “to reconstruct the categories used by subjects to conceptualize their own experiences and world view” (Lincoln and Guba, 1985, pp. 334-341). The second form consists of

categories that the researcher considers to be important for the aim of the study. These second-form categories help the researcher to develop a theoretical understanding of the processes contextually underlying the phenomenon. Therefore, categories undergo content and definition changes as units and incidents are compared and categorized, and as understandings of the properties of categories and the relationships between categories are developed and refined over “the course of the analytical process to be integrated into a coherent explanatory model of the social processes under study” (Taylor & Bogdan, 1984, p. 126).

I derived my theoretical understanding and explanatory model in this study from the endogenous theory. The issue being explored and explained in this study is the sustainability of university education in Africa. The endogenous theory provides a particular model that holds that sustainability is a process that results from the use of knowledge as currency and the creation of, as well as the tapping into, knowledge from multiple sources. Figure 2 illustrates this model.

Using this model, I took the data I collected on GKI, beginning with literature that has been written on the state and processes of higher education in Africa and Zambia and asked two basic questions: is knowledge used as currency and what is the source of knowledge being used to inform policy and practice of the systems concerned? In the conclusion of each analysis, I then looked at how

each picture that emerged explained the sustainability, or the lack of it, of the system.

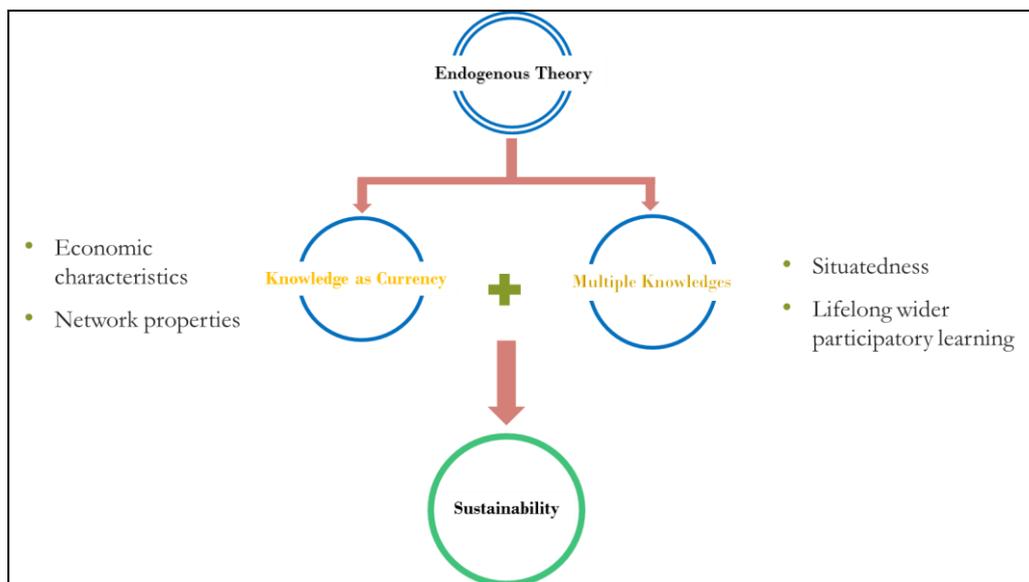


Figure 1: Endogenous Analytic Model for Sustainability

Ethical Issues

Action research is different from general qualitative research because it does not only deal with the human drama as lived by self-conscious actors. It is an inside job, a probe from within involving extensive in-depth systematic data gathering and documentation, reflexivity and self-reflection, and long-drawn-out collaboration, presentation and publication. Thus, it is not an outsider's work looking for a way through shadows to integrate into a context that is not of her own. But this comes with a serious ethical dilemma particularly arising from reflexivity and self-reflection. This is because it involves our personal diaries. In

this study, I used my reflexive journals. I should note that I am actually writing this after my defense during which the committee pushed me to strengthen my voice and make it explicit. I had inhibited my voice because of the ethical dilemma of self-reflection, that is, the dilemma of ownership. Who owns the ideas that emerge from research when their emergence is an outcome of collaborated efforts by all self-conscious actors involved? Is it ethical to claim ownership of an idea because you are the person who has documented it, and in no small measure used your schemas to put it across to a wider audience? Should knowledge and ideas still be owned in an era where the very character of knowledge is showing us that it creates more value when it is given out for free – open source? Our research ethics are generally silent on questions like these. This dilemma is particularly evident in this dissertation. You will find areas where I use the first person “I” and in others I use the collective “We” or merely a bird’s eye point of view, “this study”. This variation is not a failure on my part to consistently use one vantage point. It is a call to the reader to think as you read as to who really should own the ideas that come out of research. How can the “researched” have a share in the proceeds that come out of the knowledge they give out so carefree? In this study, I am personally consoled by the fact that not only is this study readily available to GKI and its members, but that I will also continue to work with the institute.

The second ethical issue involved in this study has to do with the subjectivity arising from my relationship with the participants. All the participants involved knew very well that I am one of the core architects of the GKI, the very system I am questioning and studying. This was a drama in itself that cannot be overlooked. For the GKI students, I had to deal with the fact that they saw me as a person with power over them, especially as they had been enrolled in the program for free, based on the GKI design, a feat that they are still learning and trying to understand. It was not uncommon to see them trying hard to choose their words carefully in particular instances for fear that perhaps they may “bite the hand that feeds them”. For the professors and professionals, you could get a sense that some felt that perhaps I was trying to establish if they understood the whole logic of the institute for purposes of deciding whether or not they are relevant to the entire scheme. Lastly was the relationship between my supervisor, Lynn Ilon, and me. My supervisor was not just a participant in the research. She is the co-architect of the GKI system and the person acting as my academic advisor. I had to negotiate my way across and balance between the worlds of being a student and co-engineer of something I am investigating.

The power play of these relationships rather than abusing or jeopardizing my research helped to build trust and a more thorough shared vision. If I had interacted with the participants on GKI business just within a short period of time, this would not have been achieved. While I may have personally managed

to have this relationship with the participants I worked with on this study, themselves still have to develop a personal level of trust and understanding among each other. The fact that some among the participants still asked for their views not to be identified by name demonstrate this point. There is still caution with regards to participants not wanting to be misunderstood or quoted out of context, especially since by nature of research reports particularly limitations of space, requirements of coherence and giving a single story at a time, we do not script the entire interview into the report. As researchers, we choose parts and points we feel tell the story we want to tell. As part of the efforts to address the dangers of a one sided narrative, I tried as much as possible to use long narrative quotations from the interviews.

It is noteworthy that the success I had in building this mutual understanding and trust with each of the participants deepened my earlier dilemma of ownership. As I wrote and analyzed the data, the voice of each participant resonated in me and I still feel that the totality of this study is a making not of my mine alone, but of everyone who took part in this research. I know that others among the participants attribute everything to my hardwork. There are also some who would love to be credited either as selected co-authors of this story or sole owners in part or full of some insights they have a reason to believe that they are theirs alone.

Lastly, if I had the freedom in this world to create my own decisions, I would have had this study be called an “edited dissertation” because it carries within it a collective story of many stories from all twenty-three participants and myself. I also believe that the story that this study present is a story shared by many; particularly, those people both from the poor and rich communities who cannot find peace because of the inequities and inequalities that beset on all sides the development path of low-resourced communities to move themselves out of the quicksand of poverty and degradation of the debt trap. Such are people, who in the name of hard work and good will, are ready to rethink the present educations systems and discard the historical baggage of slavery, colonialism and racism embedded as normal occurrences in the minds of the “miseducated”. In the specific context of this study, such are people that, critical to the success of the historic African transformation project have three things: courage, confidence and audacity. Courage is their being ready to “stand up for what they think and feel is correct” (Mbeki, 2003). Confidence is their pride and strength in themselves “to say and do what they believe is right, and openly admit and correct any wrongs they may commit” (Mbeki, 2003). And audacity is the capability to “free themselves of the “friends” who troupe to Africa, originating from the world of the rich, and populate our communities, perhaps dressed “in jeans and T-shirts”, as advisers and consultants, while Africans end up as the voice that gives popular legitimacy to decisions we neither made, nor intended to

make, which our “friends” made for Africa, taking advantage of an admission that perhaps all Africans are not sufficiently educated” (Mbeki, 2003).

Summary

This Chapter detailed the mixed methods approach to action research used in this study and the strategic comparative endogenous analytic model employed in discussing and presenting the findings. It showed how the study triangulated the documentary analysis, oral interviews and personal diaries of participatory observation. The next chapter review, through discussion, the state of higher education in Africa from an endogenous perspective.

Chapter 3: University Education in Africa: An Endogenous Perspective

There is a resurgence of interest in university education under the current knowledge economy, also referred to as the learning or creative economy. This is a kind of economy that is driven by the creation, integration and application of new ideas, knowledge and innovation (Chichilnisky, 1998; Romer, 1994). The capability of people to learn and freedom to choose to develop that capability under optimal social conditions is the measure of its potential for happiness because knowledge is produced by learning (Sawyer, 2006; Lundvall & Johnson, 1994). The capacity of, and opportunities for, individuals, organizations and networks to learn, is the driver of development and societal wellbeing (OECD, 1996, 2000). And the capability to learn, unlearn and relearn fast and constantly is the comparative advantage of individuals and organizations (Chichilnisky, 1998). The clear linkage between learning, as a process of producing and applying knowledge and innovation, and the socioeconomic and political wellbeing has placed university education at the center of social welfare and stability. This is because university education is the level of education that consumes and produces ideas, knowledge and innovation more than any other (UNESCO, 2005, Weinberger, 2011). This focus on university education is different from what was popularized especially for low resourced countries following the end of World War II.

After World War II, university education in low resourced countries was sidelined. Until the early 2000s, a premium was placed on basic level education. It was hypothesized that for low resourced countries, university education was costly, had low social returns to the whole society over and above the benefits that accrue to individuals, and was a menace to political power machinery, especially in low resourced countries which could not ably reward the highly educated, whose qualifications demand high salaries (see Sobel, 1978; Psacharopoulos, 1991, 1994; Romer, 1986; Bloom *et al.*, 2006). But this perception has changed. This change is evidenced by a rise in studies on Africa talking about the importance of university education as a producer of value-added human capital that can innovate and make use of technology to attract investments, generate new knowledge through research and drive Africa's development.

There is also a proliferation of universities on a broader scale on the African continent according to the Task Force on Higher Education and Society (2000). Despite this proliferation, the whole continent still has no more than 300 institutions that fit the definition of a university by international standards (Teferra, 2008). Only few African countries can legitimately claim comprehensive university education systems. For example, Nigeria, Sudan, South Africa, and Egypt having only 45, 26, 21, and 17 universities respectively (Task Force, 2000). Many nations on the continent have only a handful of

postsecondary academic institutions. They have not yet established differentiated university systems required for the knowledge economy. Countries like Somalia, Angola, and the Democratic Republic of Congo (DRC), have lost university-level institutions as the result of political turmoil and are trying to rebuild a postsecondary sector. At the extreme end, there are nations such as Cape Verde, Djibouti, The Gambia, Guinea-Bissau, Seychelles, and Sao Tome and Principe that have no “universities”. But even in these countries, there are major higher education institutions and efforts are being made to create one or more defined universities (Task Force, 2000).

This diversity of the development of university education in African countries makes any attempt to overgeneralize the state university education systems misleading. But whatever their unique contexts, there is a common argument running through the current literature on university education: that the university education in Africa is presently unsustainable (Altbach and Teferra, 2003, 2004; Houtondji, 1997; Hoppers, 2008). The unsustainability has mainly been attributed to issues of funding. Money has had in no small measure been viewed as the answer to sustainability. It is this thinking that I counter with my study using the theoretical lens of the endogenous theory. When I use endogenous lens to analyze the sustainability of university education in Africa, far from matters of funding as presented in recurrent literature, two major issues emerge: institutional viability and social transformation. Rather than saying a

sustainable university is one that is well funded, I argue, using the endogenous analysis, that a university education system is sustainable if it is institutionally viable and contributes to social transformation. For it to be viable institutionally and contribute to the wider transformational community efforts, it should have knowledge as currency and multiple sources of knowledge as the driving force in learning, pedagogy and governance (see Figure 2).

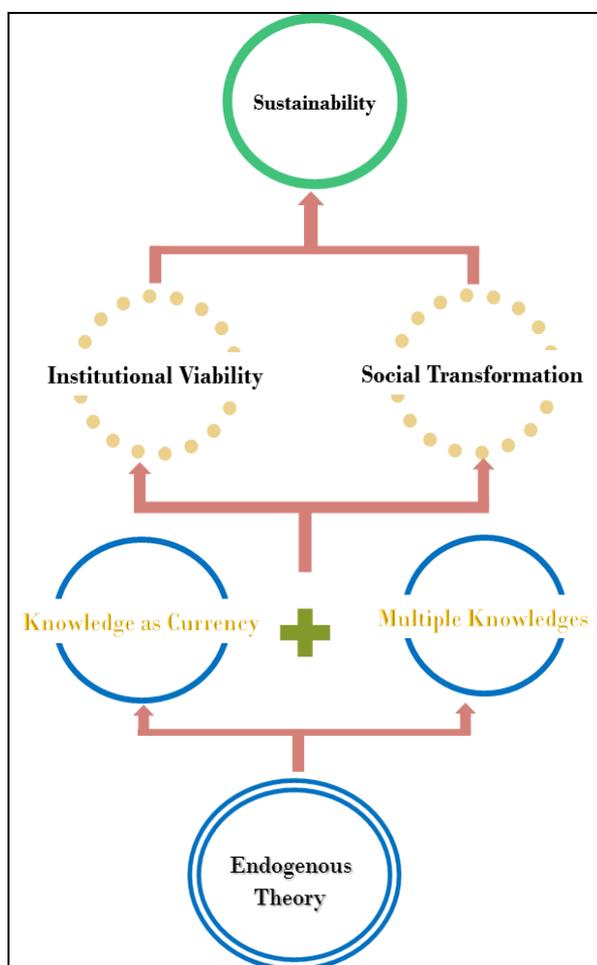


Figure 2: Sustainability of university systems through endogenous design

Underlying the above argument that a sustainable university is institutionally viable and contributes to social transformation is the idea that the current university systems in Africa are unsustainable because they are borrowed systems (White, 1996). They are not endogenous to Africa. They are exogenous systems – artefacts of colonial legacies (Houtondji, 1997; Hoppers, 2008). Instead of knowledge as currency, they use money. And rather than having multiple knowledges which include tapping into local and indigenous knowledge systems as a source of their guiding ethos, pedagogy, learning and governance, they use a single knowledge paradigm borrowed from outside. I illustrate what happens when this is the case (see Figure 3).

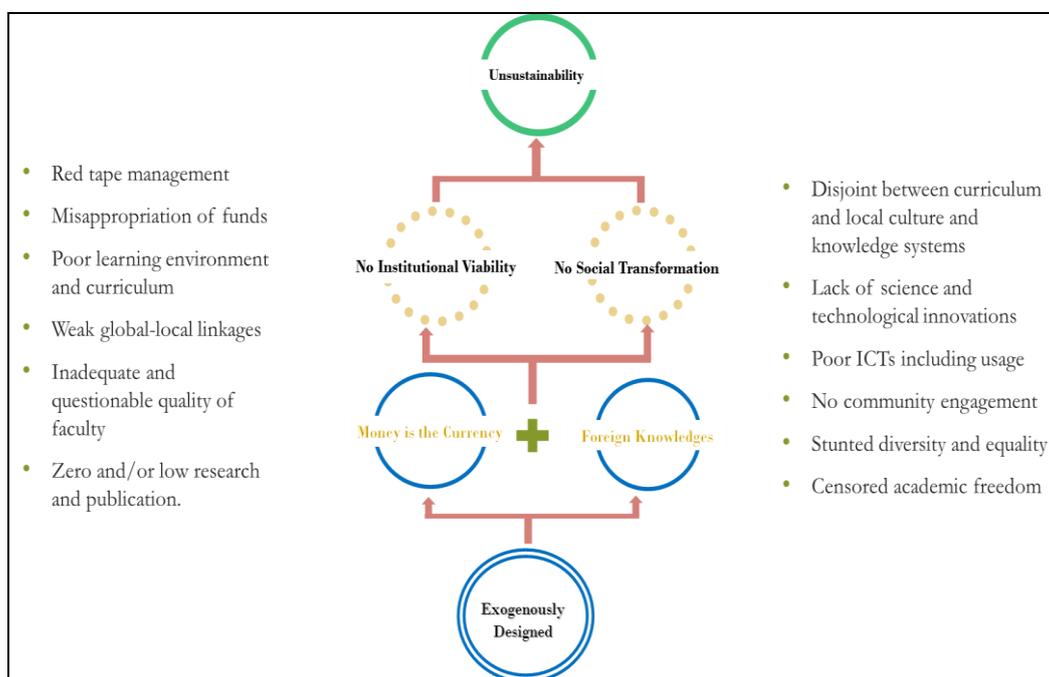


Figure 3: Exogenous model and how it leads to unsustainability

In this chapter I discuss this scenario showing how the institutional unviability and failure to contribute to social transformation of the universities in Africa results from failure to use knowledge as currency and multiple knowledges. I look at lack of institutional viability in the first section and in the second one deal with the lack of university leadership in social transformation (Houtondji, 1997; Hoppers, 2008).

Institutional Viability of University Education Systems in Africa

While institutional viability can simply be defined as the capacity of a system to maintain the quality that is acceptable according to the set standards (World Bank, 2000; Altbach & Teferra, 2004), there are many variables that come in to play when one talks about institutional viability. While the reality is more complicated, each conceivable variable is principally subject to some form of public determination in terms of the development and application of explicit and/or implicit minimum performance standards. For example, student fees may be governed in part by reference to certain standards of equity. The costs of university operation may be subsidized by tax relief public funding, determined against certain criteria, of certain types of research which enjoyed national priority. The enrolment limits in some courses may be decided against national labor supply benchmarks, and legislated ethical standards may constrain certain research activities. The size and structure of, for example, a Bachelor's degree, may be determined nationally against certain standards and certification may be

regulated against technical minimum standards associated with the ease of document forgery. The teaching of some courses may be restricted to people who possess at least certain nominated qualifications, and principles of universality and/or economies of scope may inform standards that regulate the use of the term “university”. Even the size of university governing bodies may be determined in terms of principles derived from the sociology and economics of committees (or, perhaps, on the basis of some rough and ready notions of “what works” based on experience). All these things involve thinking in terms of some standards that are both local and global in nature. Recurrent literature evidences that on the African continent, whatever standards that may have been, or are being followed by universities are not helping to make the university systems work. Many of such standards are not endogenously derived. Rather, they are borrowed from outside, and mainly from Europe and North America. The fact that Africa’s university systems are not built on local strengths may both in part and whole contribute to the dysfunctions in the following main areas: management and funding, learning environment, global linkages (internationalization), quantity and quality of faculty, and research and publication.

Management and funding

Yizengaw (2008) argues that management and administration systems of universities in much of Africa are characterized by inefficiencies. For example, resources are prioritized away from the fundamental objectives of increasing

access, quality and relevance of curriculum to such things as free or highly subsidized accommodations and food for students and maintaining an unnecessary large cadre of non-academic personnel and infrastructure (Bloom & Rosovsky, 2006). Leadership capacities continue to be low and state allocation of funds to university education very poor. For example, in sub-Saharan Africa, public support for university education was only 2% to 3% of GDP between 1995 and 2000 (Musisi, 2000; Bloom & Rosovsky, 2006; Effah, 2003) compared to developed countries that averaged about 6.3% of GDP (OECD, 2013).

This financial management and supply problem is not unique to Africa. Universities across the globe are facing fiscal problems. The magnitude of these challenges are however immense in Africa. The intensity of the problem on the continent arises from the design of systems that are unresponsive to local circumstances (World Bank, 2000). For example, the systems were not designed with the idea of providing mass higher education. Thus, they cannot accommodate growing student numbers in need of university education. The economic design of the system that relies on external funding is being hit by the underperformance of African economies, which makes it near impossible to increase university funding. Further, the imposition of high tuition on poor populations or failure to impose tuition fees for the same reason, and often to gain political mileage, aggravates the problem. Even more, dependency on changing external funding from donors like World Bank and International

Monetary Fund who usually have their own priorities keep the systems off-balance (Dei, 2004). As part of trying to solve this problem, asking universities to diversify their sources of funding is a trend that can be observed across the continent (Muller, 2000). But this diversifying of funds is not reaping the desired rewards due to general limited experience, expertise and capacity to handle challenges of financial diversification and resource mobilization (World Bank, 2000; Dei, 2004).

Learning Environment

With limited funding and management inefficiencies, the learning environment is thus typified by deteriorating and overcrowded lecture halls, poorly equipped laboratories, insufficient and unsatisfactory library facilities, lack of basic resources for teaching and research, unhealthy dormitories and moribund campus living conditions, a lack of facilities for learners with special needs as well as delays of salary payments for months, which often lead to staff strikes (Lulat, 2003; Simui & Kanyengo, 2004; Hoppers, 2008). These problems do not manifest in all the countries in the same way; nor are they present everywhere. Generally, however, issues of management and funding cripple the continent's ability to maintain the necessary standards of university learning environment (Hoppers, 2008).

Quantity and Quality of Faculty

The poor state of the learning environment is further aggravated by inadequate numbers as well as the compromised quality of the faculty. The quantity and quality of academic staff in African universities is noted to be failing to keep pace with increasing student population and changing learning environments to a point where the balance between productivity gains and the quality of teaching are coming under threat (Sawyerr, 2004; Tettey, 2009; Hayward, 2010). Sawyerr (2004) points out that academics in African universities can be divided into three generations. The first generation is those African academics that were educated in the 1960s and earlier. These were educated to the highest international standards at home and abroad and had a strong nationalistic agenda to fulfil and liberate the continent. The second generation was educated at a time of harsh economic conditions that developed during the 1970s and early 1980s. This period saw a rise of continuing graduate studies abroad thereby causing a brain drain. The last generation of academics that began in the mid-1980s, and among whom the majority of were studying abroad, local economic circumstances and the tightening of opportunities for study abroad, especially in Europe, resulted in academics having to complete their studies at home at a time when library holdings, as well as the quality of teaching and research at most African universities, were in decline. Therefore, this third generation suffered as a result of the decline in quality, and frequently

did not have the opportunity to complete their doctoral studies. This group forms the bulk of the current academics at most African universities.

Efforts to change this scenario in African universities has not yielded much. There is still a continued failure to retain and attract quality faculty and research scholars. A serious shortage of senior faculty at doctoral levels and of technical, administrative and management staff is noticeable. Across universities in Africa, on average, only 70% of the required faculty positions are filled, and in specific departments, this is only about 30-40% (Yizengaw, 2008). Over 30% of faculty sent overseas for training fail to return, and since 1990, 20,000 professionals are lost annually from Africa to other parts of the world, with about one third of all African scientists living in developed countries at a time when Africa direly needs them (Mihyo, 2008; Jibril, 2003).

Further, not less than 40% of the faculty is near retirement age, and in a number of African countries around 40% of the teaching and research staff is over fifty years of age (Yizengaw, 2008; Sawyerr, 2004). This is true in the Congo, Côte d'Ivoire, Nigeria, and Senegal (Sawyerr, 2004). This has greatly contributed to overcrowded classes and poor pedagogical practices and has resulted in inadequate learning outcomes in African universities. Furthermore, healthy related challenges such as HIV/AIDS and poor health facilities are taking a disastrous toll on the numbers and effectiveness of both management and teaching staff (Yizengaw, 2008).

The loss of staff is not just a result of disease and academics seeking employment opportunities outside the country. There is also internal brain drain. Significant numbers of key faculty continue to be lost to emerging well-paying private higher education institutions and other commercially-oriented institutions, both in terms of physical removal and their time, commitment, and loyalty (Teferra, 2008). In many African countries, academic staff often hold more than one job outside the university to help meet their basic needs (Bloom et al, 2006). This often puts a strain on them that they fail to fulfill their university responsibilities of teaching, research, and service. A variety of government agencies such as the energy, finance, and revenue collection often have better salaries and a working environment that is more comfortable than in universities. For instance, a comparative salary analysis in Ghana in 1993 revealed that salary levels in such sectors were all higher than those of the universities (Effah, 2003; Musisi, 2003). This lures a substantial number of academics away from universities.

In countries where there is still political unrest or recovery from prolonged social upheavals such as Rwanda, Congo and Sudan, skilled personnel and professionals have been either killed, or have gone into exile, leaving a huge vacuum in the intellectual labor force, a phenomenon that has greatly affected every domestic sector and curbed the process of national development (Hayward, 2010). This has eroded institutional capacities for self-renewal, generation,

accessing and dissemination of knowledge, and contribution to Africa's socio-economic development (Tettey, 2009; Hayward, 2010).

Research and Publication

The lack of funding, poor learning environment and quality of faculty further manifest the dysfunction of the system in the form of a lack of compressive and innovative research and publication. Research and publication continue to be recognized as a defining and central priority for university education systems. Today, in a knowledge economy, establishing a strong research infrastructure has more than ever before become very important, and universities are frequently linked by their participation in a local and international system of knowledge production and distribution. In this production and distribution of knowledge, the knowledge system has centers and peripheries. Africa is at the periphery of the peripheries, and now does not show up on the global networks of knowledge, learning and publication, as shown in Figure 4.

Capacities and infrastructure for research and publication activities in and from African universities are generally poor, and quality assurance and enhancement mechanisms are either not in place or are very weak and inefficient (Dladla & Moon, 2002). For example, "while Africa represented 15% of the total world population, in 2002 it could only boast of less than 1% of world scientific publications, 0.2% of patents, and 0.2% of applied knowledge" (Gazzola & Didriksson, 2008, p. 26).

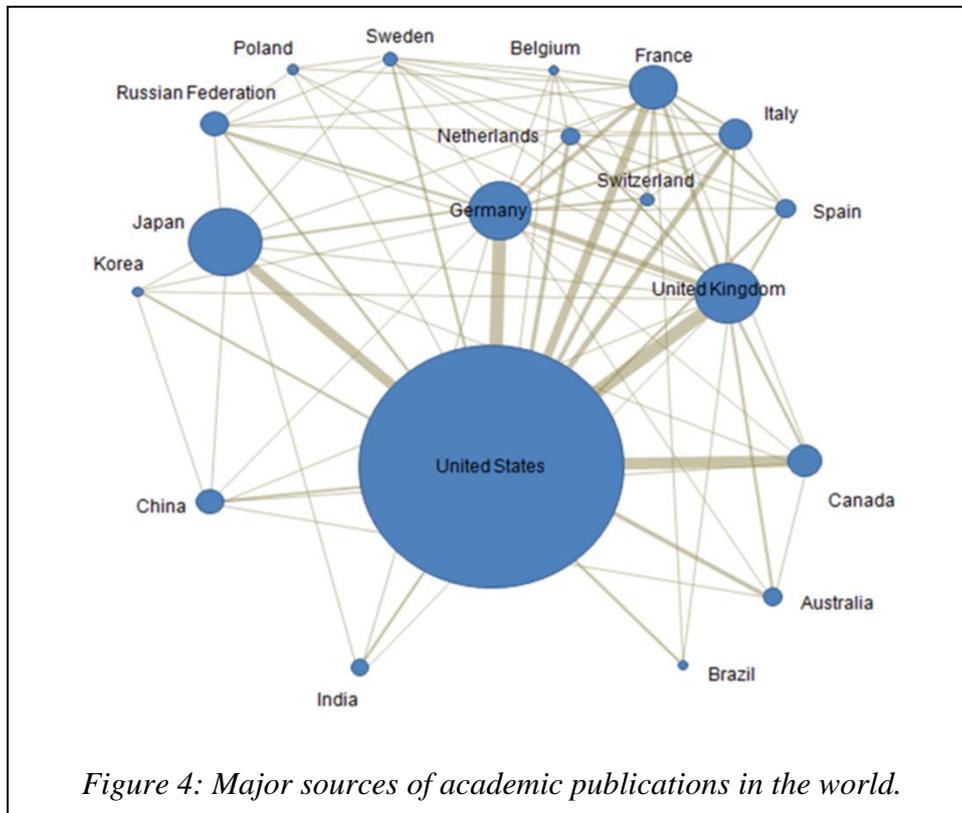


Figure 4: Major sources of academic publications in the world.

This problem has been exacerbated by the escalating costs for access to knowledge frontiers such as journals, periodicals and databases that are essential to viable and meaningful research. While some institutions, such as the World Bank, have given open access to their data bases, leading academic databases are still closed, and exchange of academic materials, publications and other scientific information in the area of library services still requires universities to spend huge sums of money in the form of subscriptions (Kantini, 2013). Even the world's wealthiest universities in wealthy countries have increasingly found it difficult to

maintain such subscriptions. For example, in its memo circulated to staff and researchers, the Harvard University advised that:

We write to communicate an untenable situation facing the Harvard Library. Many large journal publishers have made the scholarly communication environment fiscally unsustainable and academically restrictive...Harvard's annual cost for journals from these providers now approaches \$3.75M. In 2010, the comparable amount accounted for more than 20% of *all* periodical subscription costs and just under 10% of *all* collection costs for everything the Library acquires. Some journals cost as much as \$40,000 per year, others in the tens of thousands. Prices for online content from two providers have increased by about 145% over the past six years, which far exceeds not only the consumer price index, but also the higher education and the library price indices. These journals therefore claim an ever-increasing share of our overall collection budget (Harvard University Faculty Advisory Council, 2012).

The academic databases still treat knowledge like grazing grounds which deplete with overgrazing, and universities are seen only as consumers of knowledge, their consumption diminishing rather than sustaining those databases. Many universities in Africa have accordingly suspended most of their subscriptions, while others have simply cancelled their subscriptions altogether (Teferra, 2008).

Not only have universities in Africa failed to maintain such subscriptions, they have failed to generate their own publication systems which could be designed in a way that is consistent with the economic, social and political landscape of the continent.

Global Linkages

Without extensive works going on in research and publication, underlined by inadequate or no funding, poor learning environment and faculty that is

unmotivated, the global linkages and internationalization of universities in Africa are weak. This is against the historical background of education in Africa. The African continent had the first university learning centers in the world, which were founded and built by the Egyptian civilization. These were the foundation of European civilisation because the Roman civilisation and Greek civilizations were tied, and both the Greek and the Roman civilizations formed the European civilization. The entire Mediterranean was civilized by Egypt; and Egypt in turn borrowed from other parts of Africa, especially Sudan and Ethiopia (Bernal, 1991; Williams, 1992). Nevertheless, university education systems in Africa no longer have global appeal like in the past. They are struggling to sustain their international engagements and collaborations. The continent's historical global intellectual leadership has been completely lost even from the annals of world history (Bernal, 1991). There is accordingly a failure to attract high class academics, including students, lecturers and researchers into Africa's universities for study, teaching exchanges and research collaborations (Oyewole, 2009; Teferra, 2008). Substantial support for global linkages such as collaborations in teaching and research projects, student and staff scholarships still comes from non-African countries (Jowi, 2009).

Such things are important not just for the purpose of positioning the continent as a global intellectual leader. Global linkages could help African universities to address the human resource challenges through contextualized and

specialized capacity development programs (Mohamedbhai, 2008). These programs would raise the quality of academic programs and regulatory frameworks (Ogachi, 2009). In turn, research and innovations outputs can be strengthened. Also, global linkages could increase mobility and exposure of staff and students within Africa and abroad. This exposure would have positive telling effects in such areas as institutional management and governance reforms (Oyewole, 2009).

This discussion points to the fact that institutional viability is the capability of an institution for manifesting and sustaining the quality of resilience and continuity within its environment. The environment is defined by the institution's socio-cultural context characterized by a wide range of external and internal pressures, tensions and natural occurrences that may, or may not, be threats to its survival. Where such pressures, tensions and natural incidents are threats, institutional viability means that the system has the capacity to use those threats to bring about necessary institutional changes that secure the continuity of substantially the same institution²¹ or its replication or parallel (6, 2003). When the institutional viability of university education systems putrefy, their ability to contribute to social transformation crumbles, too.

²¹ The term institution is understood as a formal, non-formal and informal social rules, conventions or norms, that facilitate interaction resulting in the formation of different types of social patterns. The social patterns that result from an endogenous education system are what this investigation considers to be social transformation.

This interlinkage of institutional viability and social transformation should not be construed to mean that when a university is viable then it will contribute to social transformation. The opposite can be true. This is because universities have always been mechanisms of the selection and socialization of dominant elites²² (Castells, 2000). When universities are designed to be mechanisms for socializing dominant elites, and the socialized dominant elites end up being people with a reckless disregard for the interest of the majority citizens, institutional viability does not translate into wider socioeconomic and political transformation. In fact, university education in such cases becomes a tool for oppression of the masses and deferring the transformation that it is meant to advance in the first place. It would however be transforming the lives of the selected few, the elites.

It is important however to bring into perspective the idea of social transformation and particularly show how the lack of institutional viability is linked, and leads to, failure of the system to foster sustainable social transformation.

²² Castells (2000) and Lebeau (2008) also talk about other three core functions of universities: ideological apparatuses, expressing the ideological struggles present in all societies; knowledge generation, which Castells, although it is considered to be the most important function, calls a relatively minor one because functions of scientific research are often assumed by specialized national institutes and in-house laboratories of private firms and companies; and the most traditional one, training of a skilled labor force.

Social Transformation and University Education in Africa

The term social transformation can be understood as the change of society's systemic characteristics (Genov, 1999). Such characteristics may include shifts in productive infrastructure which can bring about new technological changes and new patterns of participation in the national and international division of labor. New structures of economic organization may also evolve to include such things as changes in ownership rights, investments, production, distribution and supply. The distribution of political power can take on qualitatively different forms, which may involve changes in the structure and performance of state institutions and other bodies of decision-making and control. Even a society's "value-normative system" can change, often in a way that allows the emergence and stabilization of pluralist institutions (Genov 1999). This is a very broad way of theorizing social transformation. To particularize the term, one requires a specific context and must take into account particular historical conditions (Bourdieu & Wacquant, 1999). The specific context in this study is Africa, and the historical conditions of transformation in which universities are expected to play a critical role include, among others, the protracted fight against colonial and neocolonial systems, dictatorial regimes (Egypt and Libya), civil wars (Sudan, Sierra Leone, Democratic Republic of Congo), xenophobia and apartheid (South Africa and Namibia), genocides (Rwanda) and diseases like Ebola (Sierra Leone).

I primarily view social as, but not limited to, a process of becoming with cognitive content. Cognitive content, is a “form of knowledge that is reflective rather than objectifying” (Guess, 1981, pp. 1-2). It produces enlightenment in individuals and communities and enables them to determine what their true interests are. Such enlightenment is inherently emancipatory, that is, it frees individuals and communities from a kind of coercion which is at least partly self-imposed, from self-frustration of conscious human action (Freire, 1973). As a process of becoming, social transformation is the well rounded liberation of individuals and their community from conditions, structures and ideologies that dominate them by weakening their power to critically perceive their reality as a process of social change, and they themselves being the change agents – the invigorating dynamic force for that process (McLaren & Leonard, 1993; Freire, 1973). Social transformation is thus a process of changing existing social conditions, relations and structures that obstruct socioeconomic change for wider shared benefits.

This section does not try to review the role of university education systems, and how they fulfil the role, of social transformation. It reviews arguments that attempt to explain why university systems in African countries are failing to effectively contribute to the process of becoming with cognitive content – social transformation. A number of scholars and institutions have shown that there are a number of factors that explain this reality (Ntuli, 2002;

Leach & Mearns, 1996; Federici & Caffentzis, 2000; Southern Africa Region University Association (SARUA), 2007). Such factors include a lack of endogenously designed interfaces between university curriculum and local knowledge systems as well as unclear community engagement strategy (Ntuli, 2002). Also, there has been little investment in science and technology curriculum, diversity and equality issues including gender disparities, poor enrolment rates and limited access, and censored academic freedom (Leach & Mearns, 1996; Federici & Caffentzis, 2000; SARUA, 2007). I explore these factors in the following sections.

Curriculum and Local Culture Knowledge Systems

The relevance of formal education to the local contexts of African communities continues to be on the agenda of a number of African governments and intra-continental bodies aimed at making Africa take full control of its social transformation. For example, the New Economic Plan for Africa Development indicates that one of the most critical ways to develop Africa, is making education relevant to Africa by redefining the curricula using local knowledge systems (Ntuli, 2002). Local knowledge is presented as the bedrock for locally manifested and globally linked decision making in agriculture, health care, food preparation, education, natural-resource management, economic diversification and a host of other activities in local communities in the process of transformation (Kantini, 2013; Ntuli, 2002).

Although this awareness is growing day by day, very little redesigning of university education systems have tapped into local cultural knowledge systems in Africa (Hoppers, 2008; Hountondji, 1997). With little research coming out of Africa by African scholars to fully represent their culture and knowledge systems, the view of Africa's local knowledge is still very Eurocentric. This is because, as Thrupp (1989) puts it, numerous analysts have discussed local knowledge practices and ideas of disadvantaged peoples in low resourced countries as "indigenous knowledge," "traditional skill", or ethnoscience using pejorative or derogatory views of conventional Western scientists that characterise such knowledge as "illegitimate," "backward," "conservative," "inefficient," "inferior," and based on "ignorance" or "myths" (p. 14).

Such researchers contrast local cultural knowledge systems with contemporary culture. In their comparisons, local knowledge is considered as something that happened in the past, thereby giving an impression that local knowledge is static and rigid rather than dynamic and evolving. Local knowledge, thus, is thought of as belonging to primitive tribal peoples with simple technologies, with little economic sophistication and existing largely outside the world market (Bicker, Ellen & Parkes, 2000). Also, they make an impression that local knowledge is "methodologically weak or unproven... populist or politically naïve; and that it generates findings that are too complicated to be of practical use to policy makers" (Leach & Mearns, 1996, p. 32).

There is a growing awareness now suggesting that rather than contrasting local knowledge and non-local knowledge in an attempt to make them similar, we should focus on the differences, if any, and work on how to harness those differences as they apply in different contexts (Bicker et al., 2000). It would be misleading to try to validate local knowledge using exogenous scientifically validated methods. Such methods are not contextually derived. Besides, their application has so far caused more damage than good, to the environment for instance. Principles of western scientific methods such as generalizability of findings do not usually apply to many forms of local knowledge. While the characteristic of not being generalizable can be cited by some researchers as a weakness of local knowledge, it is this very trait that is its strength because sustainable solutions are context specific. They are not like a “cook book.” This also explains why ongoing attempts at imposing generalized models in Africa such as the World Bank’s Structural Adjustment Programs (SAPS) yield ill results (Briggs, 2005).

More and more research is showing that actually local knowledge is not only a critical component of planning in a world that has multiple and complex interconnections (Fischer, 2000; Cornwall, 2002; Innes & Booher, 2010; Muchenje & Goronga, 2013), but that with such interconnections local is no longer local, but part of a global network of resilience and strategic solutions. The failure of university education systems to contribute to social transformation

in Africa is therefore seen as partly resulting from implementing curricula that do not interlink local knowledge systems (Olapade, 2014; Guest, 2012).

Science and Technology

The negation of local knowledge means that indigenous sciences and technologies are also left behind. Researchers such as Hountondji (2002) and Hoppers (2002) have lamented that the colonial legacy of negating the development of science and technology in African education systems has been perpetuated in contemporary times. Curricula of universities in Africa under colonial authorities were dramatically restricted as the colonizers side-lined scientific subjects. The impact of this colonial past, and its continuing legacy, remains crucial in any analysis of university education systems in Africa (Teferra & Altbach, 2004). The fact that African countries are struggling to evolve science and technology into languages indigenous to Africa, particularly at university level, away from colonial languages, is significant and illustrative of this point. Wherever science and technology have been taught, the curricula have not tapped into local knowledge systems. Yet, science and technology are inseparable from local knowledge, which is in no small measure preserved and promoted using a familiar language of the people. Without rooting the development and application of science and technology in local knowledge as well as creating the scientific and technological meaning and symbols in local languages, Africa's transformation will stall. This is further because innovation

in technologies that will transform African societies will require among other things to be culturally sensitive and indigenously rooted (Muchenje & Goronga, 2013).

University education systems that are supposed to take a central role in bridging the knowledge gaps are failing because research output, as discussed under institutional viability, in Africa's universities is very low.

Information and Communication Technologies (ICTs)

The challenge of African universities is not just evolving technologies that are culturally sensitive and indigenously rooted. Africa remains one of the weakest regions in the world in terms of the use of information and communication technologies (ICTs) in education (Farrell & Shafika, 2007). This is largely because Africa remains the least connected to the internet, telephony (both mobile and fixed line) and broadband subscription, as shown in Figure 2.

Specifically, in terms of ICT in education, since 2000, African countries started developing and implementing ICT policies. The general observation has been that there are substantial differences in ICT policies for education among the African countries. First, there are countries like South Africa and several North African nations that are a unique case in terms of being able to move their ICT agenda forward. This is because they have both resources and high bandwidth connectivity with Europe. Second, countries like Mauritius, Ghana, and Botswana are steadily moving towards sustainable economies and have

made remarkable progress. Third, is the last category of countries transitioning from a sustained period of conflict and economic instability and are looking to ICT applications to help them meet a myriad of challenges, especially human resource capacity and infrastructure (Farrell & Shafika, 2007).

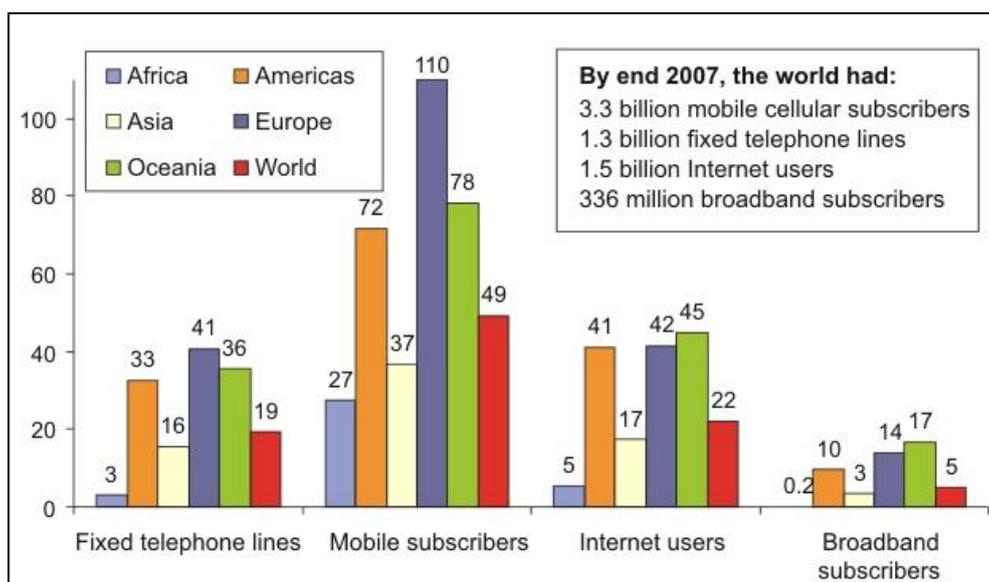


Figure 5: ICT penetration rates per 100 inhabitants around the world. Taken from International Telecommunication Union (ITU), 2007.

In the last category are countries facing near impossible realities to advance ICT in education. The universities in these nations are seriously constrained in the use of ICT as they lack advanced computer stations and sustainable access to affordable high-speed Internet connectivity. The 2006 African Tertiary Institutions Connectivity Survey summarized the ICT situation in Africa as “too little, too expensive, and poorly managed. The average African university has bandwidth capacity comparable to a broadband residential

connection available in Europe, and pays 50 times more for their bandwidth than their educational counterparts in the rest of the world” (Gakio, 2006, p. iii). The 2007 baseline study of challenges facing higher education in Southern Africa by the “Southern Africa Region University Association” observed that in Southern African universities, with the exception of South Africa, on average you can find four lecturers per computer, three administrative staff per computer, and 70 students per computer (SARUA, 2007).

The challenge is not only in the lack of access to computers. The Western-style assembly-line instruction model used in African universities segregates the child from the ongoing cultural activities and social practices of the adult digital world (Rogoff, Paradise, Arauz, Correa-Chavez & Angelillo, 2003). This is because, while new technologies are removing some of the barriers to participation and interaction associated with the current educational models, this development is not being readily welcomed. Many lecturers are resistant to new ICT enabled teaching and learning (Rogoff et al., 2003). Even more, some of the ICT initiatives such as the Massive Open Online Courses (MOOCs) manifest common challenges to the traditional school systems which include the following.

Firstly, certain values embedded in the particular designs of the MOOCs makes knowledge inaccessible to most people, as the formats are not user friendly. For example, the majority of course videos and materials require more

data bundles to download but internet connectivity in a number of African countries, like Malawi and Swaziland, is not only weak, but also expensive.

Secondly, many of the MOOCs are designed in the old system of the top-down approach to knowledge. The courses are either designed by experts from wealthy countries and broadcasted to poor nations, or directly adopted from the curricula of traditional schools. The courses are not organized in a way that taps into local community learning networks and knowledge assets. The local needs and creativity remain underutilized because the web is still yet to document and capture the reality and voices of the poor in a manner recognizable by the way in which education is currently conceptualized. The course content, therefore, is largely unresponsive to local needs and creativity.

Thirdly, the MOOCs, in most instances, aim at being adapted in existing education systems. While this is good, the reality for poorly resourced countries like The Gambia and Uganda is that their current education systems are indifferent to community contexts. Thus the MOOCs simply reproduce and embellish technological platforms and gadgets of an already dysfunctional education system.

Lastly, there is a simplistic cause-and-effect assumption that merely making the MOOCs available to poor countries will raise literacy and education levels. It is true that access to information is vital. But there is a need to recognize that the relationship between access to such information and

educational outcomes is not straight forward. There is a need to “set out an alternative, or rather, a series of alternatives to current majority practice” (Mowles, 2008, p. 6; IKM Emergent, 2010, p. 12). Such alternatives should focus on how, based on context, low resourced countries can adapt and develop their own content and technologies. The new content and technologies should help relocate education from walled classrooms to open learning spaces – linking classroom learning with community learning.

It is noteworthy that given the rapid advancements in technology, and specific dynamics in ICT developments in Africa, the arguments above may not be representative of the actual reality continent-wide. They should, therefore, be understood and interpreted within the time and framework of this study. Besides, the above challenges are being addressed with a strong will from governments and development partners establishing national research and education networks (NRENs) (Farrell & Shafika, 2007). Such networks are aimed at enabling connectivity among universities and, eventually, all educational institutions across the continent. Examples of where this is happening include Morocco, Burkina Faso and Libya. In Morocco, a project called X.25 Gateway is connecting 14 universities to the Internet. The same initiative – the national network of education and research (RENER) – is taking place in Burkina Faso. The higher education and research network (LHERN) in Libya is also connecting universities and other institutions. Other NREN examples are described in the

reports for Botswana, Djibouti, Kenya, Malawi, Mozambique, Namibia, and Rwanda. The expectation is that by linking these networks to undersea cables via regional networks, “global connectivity will be a reality and costs can be reduced to sustainable levels” (Farrell & Shafika, 2007, p. 10).

Community Engagement

While governments and development partners are establishing national research and education networks as described above, such networks have been found wanting in terms of the extent to which they engage local communities (Hall, 2008; Gazzola & Didriksson, 2008).

Community engagement is a “silo and integral part of teaching and research meant to enrich learning experiences with a deeper sense of context, locality and application” (Netshandama, 2010, p. 342). Local community engagement is a core function of university education, particularly as a way in which universities can advance community social transformation (Singh in HEQC, 2006). The term community engagement is constitutive of “some cases, pre-existing practices such as experiential education, community service, community development, community-based education, clinical practicals, field work, community outreach and even service learning” (Bender, 2008, p. 1155) It is applied learning that is directed at specific community needs, and is integrated into an academic program and curriculum where community means specific, local, collective interest groups that participate in the learning activities of the

institution, and have a full say in the identification of engagement needs, development outcomes, identify the relevant assets that they have in place, evaluate the impact, and contribute substantially to the mutual search for sustainable solutions to the challenges (Netshandama, 2010).

Nonetheless, in the case of Africa, the basic principles and goals of community engagement in the literature remain unclear. For instance, there is still ambiguity as to whether or not community engagement is a pedagogical strategy for better understanding of course content, or a philosophical stance committed to the betterment of the local or global community, an institutionalized mechanism fostering students' growth and self-awareness concerning issues of diversity, volunteerism, and civic responsibility (Hall, 2008). It is not yet clear what sustained community impact is achieved through community engagement, "who benefits from the enactment (and publicity) of such a process, what actual learning is documented as a result, and whether or not the whole community engagement process is a self-seeking and incontinent academic exploitation of local community cultures concealed as sanctioned servant and intellectual service leadership" (Netshandama, 2010, p. 343).

This ambiguity in the understanding of the concept of community engagement has greatly disadvantaged communities. This is because the engagement processes are "forced to fit into the academic elitism, examination procedures and research frameworks of trying to get published early" (Kezar &

Rhoads, 2001, p. 125). This negates community social structures and priorities. Further, one troubling question remains unanswered for university education systems in Africa, and even elsewhere, with regard to community engagement as a tool for advancing social transformation: do lecturers and students have the time, resources, capacity and incentives to engage and share with local communities for mutual benefits?

Regardless of the clarity or ambiguities discussed above, there is agreement that community engagement benefits both communities and universities. University-community partnerships with external private and public institutions and industry can have a considerable financial impact and quality of learning outcomes, provided they are operated in genuine partnership with enterprises that have greater expertise in financial resource management and a robust research base. However, from the beginning of the 1990s, the relationship between universities and communities in many African countries soured, due to the intensification of exclusionary disciplinary cultural barriers that separate them, making universities distrust communities and communities distrust universities (Gazzola & Didriksson, 2008).

Diversity and Equality

The intensification of exclusionary disciplinary and cultural barriers between universities and communities provides a breeding ground for problematic issues surrounding diversity and equality. This is because university

education continues to be seen as having individual benefits, more than value for the community. Accordingly, the issues of access and equity issues in relation to gender, geography, average income, the ability to afford the high tuition, and the inclusion of disadvantaged groups in university learning systems is a common feature on the face of Africa (World Bank, 2004). Take the issue of absorbing high school graduates, for example. In 2012, higher education institutions in South Africa only had 180,000 places for first-year students, while some 250,000 South Africans passed their final high school examinations at a level that qualified them for admission to tertiary institutions (Kotecha, Wilson-Strydom & Fongwa, 2012). Namibian universities only enrolled 8,059 out of the 26,612 applicants at undergraduate level. In Zimbabwe, an estimated 8,000 students who qualified to enter university did not get an opportunity to do so (Kotecha et al., 2012). In Liberia, all applicants in 2013, totalling 25,000, failed the University of Liberia entrance exam in what was called an “epic fail”, and the Liberian government minister likened it to “mass murder” and brutal exposure of flaws in the education system (Denham, 2013).

The Forum for African Women Educationalists (FAWE) observed that gender disparities in student enrolment and staffing levels remain rife in Africa’s Universities (FAWE, 2011). In the 1990s, three decades after majority African countries gained independence, only 25% of students enrolled in Africa’s universities were women, and only 3% of faculty members were female (Ajayi,

Goma & Johnson, 1996). By 2009, it was estimated that the continent's overall enrolment, of female students was still far below parity, averaging around 30% of total enrolment and the percentage of female faculty had only increased to 6%, with disparities still severe at senior academic and administrative levels (Mama, 2009). Majority of women working in universities did not serve as academics and researchers. They served as secretaries, cleaners, human resource managers and other support administrative services of low rank that are considered to be able to benefit from a "feminine touch". There are a few exceptions however to this overall deficit, "notably, Swaziland and Libya, along with some arts and humanities faculties in certain South African institutions. But there are not yet any proper investigations or analyses of the factors giving rise to these" (Mama, 2009, p. 5).

The under-representation of women in African universities is fertile ground for a burgeoning intellectual culture that sustains patriarchal gender values, practices and procedures that disadvantage women. Given that gender equality will always be an important ingredient for institutional and national advancement and a precursor for social transformation, there is an urgent call to ask deeper questions about the factors that continue to sustain gender inequalities and address patriarchal gender cultures inside universities to end this unequal status quo.

Academic Freedom

Similar to the above factors is the issue of academic freedom. The freedom of the academia is an essential element for universities to be able to contribute to social transformation. Academic freedom is necessary for objectively exploring the knowledge dynamics that characterise relationships between students and lecturers, university community and the local communities, the government systems and the university, and amongst and within the ranks of all of these. The concept of academic freedom is thus better understood as having two divisions: (i) freedom to determine the curriculum and (ii) freedom in terms of relationship of the university community with political establishments and the public. The former involves students and professors. For example, do students have the freedom to determine their field of research, form professional associations, engage in national and international issues, and express their opinion and views on the quality of teaching and university services, without conflicting with the faculty and university management? The latter engages students with both academic and non-academic staff that constitute the university community on one hand, and the state and public on the other. The main question here is whether or not the university community enjoys complete freedom to form and express radical, critical and independent opinions on both academic and non-academic issues on matters of national and international interest, and engage with the public and communities without conflicting with state political machinery.

Academic freedom recognizes the need for the freedom of expression of academics, both within the domain of the university learning system, and in the public domain. This freedom is often killed by despotism. The state controls and monitors universities closely. Global external funding with altruistic economic and political motives dictates what governments and universities should focus on. There is also intellectual despotism where faculty do not give room to students to challenge old notions and patterns of academic behavior.

It is well established in the literature that academic freedom in all its dimensions has never been fully realized on the African continent (Federici & Caffentzis, 2000; Lebeau, 2008). Participation of the intelligentsia in debates, media, civil society and democratic processes, such as arguing in favor of change through elections, coups and armed struggles, has contributed to the democratization of the continent. However, many academics have been hurt, imprisoned, persecuted, exiled and even killed in the process. For example, there was a total of over 110 reported student protests in Africa between the years 1990 and 1998, and government responses to student protests were “inhumane,” “brutal,” and “excessively cruel” (Federici & Caffentzis, 2000). Between 1990 and 1991 we have the tragic examples of “Lubumbashi, in former Zaire and Yopougon in Cote d’Ivoire where universities were raided by security forces with a considerable amount of brutality while both countries were engaged in democratic transition programs” (Lebeau, 2008, p. 147).

With the cutting of state budgets to universities, poor research funding, inadequate management, and poor technological infrastructure, the academic freedom of universities across the continent continues to decrease. The nations and continent are increasingly left vulnerable to internal and external exploitative forces. Protests and strikes by staff no longer concern themselves with such issues as quality of curriculum, political freedom, self-determination, human rights, and cultural and religious tolerance. Vigorous protests and strikes increasingly revolve around resistance to increases in tuition and user fees, and the lack of pay raises and state subsidies. While these issues are important to social welfare, it is in innovation and creativity that the salvation of the intelligentsia and communities lie.

Summary

The literature shows how the university education systems in Africa, due to the external designs which were left by colonial legacies and sustained by colonized mindsets, are failing institutionally and socially to foster the transformation of the continent. This highlights how an endogenous university system should, and should not, look.

University learning systems can be instruments of social transformation if they are viable, effective and efficient and demonstrate a real concern both qualitatively and quantitatively in identified areas. These areas include equity, equal access opportunities, quality of education conditions and services, active

and equal community engagement, freedom and human rights, global participation and innovation. The apparent decline in quality in all of these areas explains the tragedy of not endogenously designing university learning systems in Africa. In the chapter that follows, I continue to explore these matters, but focusing on Zambia, as it is the area where the endogenous prototype I observed is located.

Chapter 4: University Education in Zambia: An Endogenous Perspective

Chapter 3 explored how university education systems in Africa, due to the exogenous nature of their design, are neither institutionally viable, nor contributive to social transformation. I observed that it would be misleading, however, to overgeneralize the state of university education systems in Africa. This is because there is so much diversity as regards the development of university education in African countries. This chapter focuses on Zambia. I explore the issues discussed about institutional viability and social transformation in Africa within the context of Zambia. I use this chapter to particularize the issues to Zambia to create a specific context for the founding of the Global Knowledge Institute (GKI) prototype.

Development of University Education in Zambia

Much of the literature on Zambia has tended to use the term higher education to refer to university education.²³ Also, university education has been used to constitute more or less the two public universities, the University of Zambia (UNZA) and the Copperbelt University (CBU) (see for example Sichone, 1998; Simui & Kanyengo, 2004; Teferra, & Altbach, 2003, 2004; Teferra, 2008).

While individual authors may have their own reasons for doing so, one plausible

²³ It is important to distinguish between university education and higher education. University education is only a component of higher education. Higher education includes “all types of studies, training or training for research at the post-secondary level, provided by different types of educational establishments that are approved as institutions of higher education by the competent State authorities” (UNESCO, 1998).

reason is found in the historical context of the development of university education in Zambia.

In 1964, when Zambia gained its independence, the country had no public or private university. The university graduates it had, just over a 100, were educated outside Zambia, particularly at Makerere University in Uganda. It was only in 1966 that the first public university, the UNZA, was established and opened its doors to 310 students in its first year. The new university only offered degrees in Education, Social Sciences, Natural Sciences, Agriculture, Engineering and Medicine, as well as diploma courses in adult education and social work (Musambachime, 1990). Following a presidential directive to create two additional campuses, the second public university, the CBU, was established in 1979 as a new facility to offer degrees in Business and Environmental Studies. The other campus that was meant to be a third, rural university specializing in agriculture was never established, because this country was experiencing a sharp decline in the state of the economy at the time (Musambachime, 1990). Nonetheless, by 1994, nonetheless, about 16,000 degrees had been conferred by, and enrolment rate was 5,985, at, both UNZA and CBU (Bloom, Cuning & Chan, 2006). To date, the two universities, UNZA and CBU, remain the leading universities in Zambia.

In 2008, a third public university, Mulungushi University (MU), was established with a total enrolment of 1,000 students projected to reach 10,000 by

2018 (Hampwaye & Mweemba, 2012). This new university combines third-stream income activities (such as investments in the stock market, a commercial radio station) and private-public partnerships (including the partnership with Konkola Copper Mines, operating in the Zambian Copperbelt Province, and with Massachusetts Institute of Technology in the United States of America) (Hampwaye & Mweemba, 2012). The academic structure of MU includes three main faculties: Business Studies, Social Sciences, and Agricultural Development Studies. It also has three academic centers - Labour Studies, ICT Education and Disaster Management Training – aimed at boosting the academic contributions from the university. In addition, there is an Institute of Distance Learning and a Directorate of Research and Postgraduate Studies (Hampwaye & Mweemba, 2012).

In the early 2000s, Zambia began to see the emergence of private universities. Private universities continue to open, but only in major cities, and they are geared towards undergraduate programs. Their emergence has actually had a negative bearing on university education in Zambia because, firstly, they are taking interest in providing graduate studies without enough independent institutional resources (Teferra & Altbach, 2003; Kantini, 2013). Secondly, their programs are generally narrow, and courses are targeted towards profit making. Thirdly, the quality of service is low and social responsibility is almost absent as they emerge largely as a personal and more or less a profit making business

enterprise (Lulat, 2003). Fourthly, they are exerting pressure on the three public institutions already faced with too few academic staff. For example, at the three public universities, some lecturers who are qualified to teach only undergraduates also teach postgraduate level.²⁴ With the rise of private universities, while holding full time positions at the three public universities – UNZA, CBU and MU – many lecturers join private universities either as part-time or full-time teachers. Private universities serve as an important source of extra money. This internal brain-drain coupled with external brain-drain is seriously constraining many departments and the overall quality of university education in Zambia (Mundy, 2000; SURUA, 2009).

Viability of University Education and Social Transformation in Zambia

A number of researchers have observed that the institutional viability of universities in Zambia has continued decreasing since the late 1970s. Moreover, there is a dysfunctional linkage between university education systems in Zambia and the social transformation of the country (Ilon & Kantini, 2013; Bloom et al., 2006; Platteau, 2004; Teferra & Altbach, 2003, 2004). This is evidenced more clearly by the lack of viable intellectual leadership, poor community engagement, negation of indigenous languages and culture, weak local and global knowledge

²⁴ Principally, only lecturers with a doctorates, associate and full professorship are qualified to teach at postgraduate level. But there is a serious shortage of lecturers with such credentials. Thus, programs and departments end up using master's degree holders to attend to postgraduate classes.

interfaces, limited financing and access, and low research output and publication.

The subsequent sections explore each of these realities.

Intellectual Leadership

A country endowed with unexploited natural wealth, a small population of approximately fourteen million and with majority people in the age range of 15 to 35 years old, requires a robust intellectual leadership for its transformation. The university education in Zambia is failing to rise to this challenge. It is not easy to point out intellectual leaders in Zambia (Kantini, 2013). The intellectuals have either been silenced, or have shut themselves up and grown indifferent to the socioeconomic and political malaise of the nation. Those that have tried to rise and play active political roles, for example, have either found themselves plunged in corruption scandals or marginalized within the political machinery and used to authenticate decisions they neither made, nor intended to make, but which those in control of the political system made. Those at the center take advantage of an apparent admission that perhaps intellectuals were in their “ivory towers” far from grassroot people and do not make good politicians. In a recent editorial article, “Evil Educated People”, by Zambia’s leading private newspaper, *The Post*, highlighting this crisis, warned that:

...an evil person with a great education is infinitely a more dangerous person than one who is relatively ignorant....Look at what happened under Frederick Chiluba's rule! [the second Zambian Republican President, 1991-2000] Look at the people Chiluba was abusing and stealing public resources with! They were invariably

highly educated people - Dr Katele Kalumba as Minister of Finance; Stella Chibanda as permanent secretary in the Ministry of Finance; Professor Benjamin Mweene, Faustine Kabwe, an accounting and financial expert, Richard Sakala, among many others. All highly educated people who turned their skills and expertise to serve Chiluba's corrupt desires and in the process also enriched themselves. What they did could not have been done by an uneducated person (*The Post Newspaper* Editorial, 2014).

The intelligentsia seem to be uprooted from their communities and live in a world peculiarly of their own, divorced from the happenings of their local communities. The leading roles in the community are left to those who are considered drop-outs or have failed to cope with the pressure of formal education (Kantini, 2013). Statistics by National Assembly of Zambia (2010) show that out of its 156 members, only 28 had graduate qualifications, 41 had undergraduate, while 87 had either secondary school certificates or college education diplomas. The majority of the appointments to ministerial positions were given to those without graduate or undergraduate qualifications (Saluseki, 2010; Kantini, 2013).

The fortunes of the university education have been tied to that of a nation in decline. A brief overview of the participation of students at the UNZA in national and international developments from the 1970s to the present can evidence this very well. The first decade of the UNZA saw the institution rise into a classic center of learning in the region, with its students celebrated for their practical intellectualism. In the 1970s, the students' body significantly shaped the government's foreign policy and helped position the country as a hub

and a bastion of freedom movements fighting inhuman terror activities in apartheid South Africa, Zimbabwe, and Namibia, and the beleaguered Angola, Mozambique and Congo DR. In the 1980s, the university student body actively enhanced the contribution of the university community through conscious, responsible, informed and patriotic participation and engagement in, national and international matters. In the 1990s, the combined efforts of students, lecturers, civil society and political parties, including the army which played a critical but background role, demolished the one party state governance of Kenneth Kaunda and introduced the multi-party democracy under the leadership of Fredrick Chiluba, of the Movement for Multiparty Democracy.

From the 1990s onwards, just as the multi-partism and democratic government of Chiluba turned out to be disastrous to the country's progress, coupled with the subjugating Structural Adjustment Programs of the World Bank and International Monetary Fund, the prestige and credibility of the university education in Zambia declined as it became less of a national priority. The university system came under attack for not adapting to new contexts or for being isolated. The World Bank's Structural Adjustments Programs (SAPs) paved the way for such criticism. The SAPS long-standing policies emphasized investment in primary education and suggested de-investment in higher education from the 1970s till the mid-1990s. In fact, the World Bank, in its

report: *Higher education in developing countries: Peril and promise* (2000),

admitted to this error and later rethought this policy direction:

Narrow – and in our [World Bank’s] view, misleading – economic analysis has contributed to the view that public investment in universities and colleges brings meager returns compared to investment in primary and secondary schools and that higher education magnifies income inequality. As a result, higher education systems in developing countries are under great strain. They are chronically underfunded, but face escalating demand – approximately half of today’s higher education students live in the developing world (World Bank, 2000).

Today, the memorable and significant epoch of the university education in Zambia has vanished. Even the student and lecturer leadership bodies are now shadows of their former glorious past. Instead of engaging and demonstrating for such progressive institutional issues like national prioritization of research and science, recruitment of more faculty given the low faculty staffing levels, digitization of the university, or other relevant issues that sustain and increase the quality of university education system, university demonstrations revolve around student allowances and faculty salaries. Lucy Sichone, in her article, *Student Politics*, summarized this well when she lamented that

My brother and fellow thinker, Azwell Banda now domiciled in South Africa used to argue on a regular basis that a terminal genetic degradation of the brain, has inflicted the young people especially those at UNZA [the university of Zambia]: these children squat at UNZA for 4 years and come out in worse form than before they went to that great school of learning...I have come to accept that judgement (Sichone, 1998).

It would not be out of place to observe here that populations that our current education and political systems have categorized as illiterate have over many centuries survived the worst calamities because of their healthy common sense. The human species today are more vulnerable and prone to tragedies because their common sense which protected them from absurdities of systems of power and control has become sick with distorted information they encounter in school, media and religion. The deteriorating condition of the university community in Zambia is thus not a result of external factors alone. It is also self-inflicted. The systems are no longer administered by colonial expatriates yet they still refuse to work with students who have innovative and ingenious creativity necessary for reforming the university systems (Kantini, 2013; Bloom et al., 2006). The systems are not only failing to engage and harness their own intellectual resource within, but knowledge assets in external communities.

Community Engagement

The social and economic progress of communities and nations in a globalizing world is increasingly dependent upon the ability of any jurisdiction to meet the needs and aspirations of its members for advanced and continuing education for local community sustainable progress (Busia, 1968; Platteau, 2004). The quality and overall relevance of university education in Zambia is not rooted within the context of local community development because policies, practices, norms and curriculum use knowledge produced elsewhere (Teferra & Altbach,

2003; Bloom et al., 2006). University education is accordingly failing to play its important role in social transformation because it does not engage local communities in innovation. The graduates are not being helped to question and work effectively within the universities and with local communities. Also, the preparation of graduates for work outside their predominantly agricultural community is alienating them from their communities rather than empowering. The ability of students to interact with the outside world that is impacting their community is left undeveloped (Teferra & Altbach, 2003). Universities in Zambia are struggling to find a balance between curricula that are culturally relevant and that prepare students to participate in a larger global settings (White, 1996).

Community engagement tends to find a place within the Zambian university system under the concept of community service. However, the concept of community service does not incorporate community learning and local knowledge. It is a medium through which knowledge is understood and applied as a gift bestowed by those who consider themselves knowledgeable upon those they consider to know nothing (Freire, 1972). Through community service, local communities are thus treated as consumers and recipients of the expertise provided by the universities. With the exception of traditional avenues, such as running the teaching hospital and allowing public access to the university library facilities, universities in Zambia have hitherto followed the path taken by many

other universities across the region, that is, “to build ivory towers that are far removed from the problems of society at large” (Lulat, 2003).

Culture and Language

The failure to engage communities has only served to perpetuate the colonial legacy of negating local cultures. This is partly evidenced throughout Zambia’s history by the language policy the country inherited when they gained independence. The language of instruction in the 1000 secondary schools that had been established by 1964 was English. Further, communities were completely removed from boards establishing government policy on education theory and practice (Omolowa, 2000; Teferra & Altbach, 2003).

Fifty years later, local Zambian culture still finds very little space for learning in university education systems, except when it is used as a guinea pig for research (Kelly, 1991; Hountondji, 1997; Luyckx, 1999). There are no departments of cultural studies in Zambian universities, just like there is no independent ministry at the national level solely charged with the task of developing languages and cultures of the nation. Culture and the arts are subsections of ministries focused on something else, like tourism.

It is noteworthy that culture is dynamic and passed on from one generation to another. The mechanism by and through which culture is preserved, developed, communicated and transmitted is culture itself. This mechanism is language. Yet, with its seven regional official languages and more than 55 minor

ones, Zambia has no indigenous language currently in use at university levels. Accordingly, Zambia is a consumer of knowledge that is conceived, developed, and organized elsewhere and based on foreign tongues. Communities have done all they can to send their children to schools and universities at home and abroad in search of knowledge and skills which could transform the communities “but, lo and behold, each one of them comes back only speaking in tongues,” completely alienated (Thiong’o, 2000).

University education systems in Zambia have chosen to have no capacity to generate enough knowledge of their own using indigenous languages and culture (Teferra & Altbach, 2003; Busia, 1968; Dei, 2004). Nor is there infrastructure or a strong will to process and translate existing knowledges to indigenous languages and vice versa apart from the Bible, which has been translated into over twenty local languages, the national constitution, and the anti-gender-based violence Act number one (2011), which are in seven major local languages (Kantini, 2013; Mukuka, 2014).

This situation continues to exclude local culture from university education, and makes the applicability of received knowledge difficult to implement in local contexts (Dei, 2004; Snelson, 1970; Platteau, 2004). For instance, while many countries in the world are translating technological software and computer programs into indigenous languages to make them user friendly to their populations, no concerted efforts are being made in Zambian

universities in this regard. Due to the high illiteracy rate, as regards the English language, technology will thus remain alien to the majority of people, even if they can access it, because they have to first learn the technicalities of English. Certainly, Zambian citizens will remain severely disadvantaged and suffer irreparable damage in the current global and knowledge based society (Romer, 1986).

Local and Global Knowledge Interfaces

With a feeble cultural and local language backbone in the university education system, interlinkages of local knowledge with global knowledge are dysfunctional in Zambia. In an increasingly globalizing world, interfaces between internal and external understandings are very critical, as the locally manifested problems, such as immigration, environmental degradation and global warming, are now globally linked. The main form that knowledge interfaces in the Zambian university education sector takes is agreements with other universities and companies to carry out exchange programs and collaborative ventures. Exchange programs involve the physical movement of administrative staff, students, academic materials, publications and other scientific information from other universities to Zambia, and vice versa. The collaborative ventures include cooperation in research and presentation of results, collaboration and exchange of resources and staff in the area of library, and other auxiliary services. For example, the University of Zambia has such agreements

with Seoul National University in South Korea, Hogskoleni Oslo og Akershua in Norway, and Ahfad University for Women in Sudan. Mulungushi University also, Zambia's third public university, has agreements with Massachusetts Institute of Technology in the United States of America. However, there are no local resources to put this into full operation, and the will from Zambian universities is not strong. So, many of these exchange and joint ventures take place only when engineered from the outside. The lack of local will in this area also explains why the universities have not been able to attract world class foreign professors, or even send their own faculty overseas at a considerable pace on what could be seen as "academic foreign service."

Cooperation with corporate companies takes the form of scholarships, internship programs and commissioned research. Mining companies, medical research centers such as the American Center for Disease Control, and banks have been very forthcoming in sponsoring outstanding students in given programs of study. The Konkola Copper Mines operating in the Zambian Copperbelt Province, for example, immediately signed an agreement with Mulungushi University when it opened in 2008. To a larger extent, however, the agreements with corporate companies seem to be founded more on the need for human resource by those companies rather than the production of knowledge and innovation for its own sake. For example, the basis for choosing students for corporate scholarships at the graduate level is not the topic or area of their

research or the gap between theory and practice that the student's research will address. It is based on their undergraduate final test scores (Kantini, 2013). When the research interest is considered, the corporate companies as sponsoring agents dictate what is to be studied and the local community and university needs are sidelined. For instance, the recent controversial Lower Zambezi Mining project by Zambezi Resources is noted to have ignored how opening up its open pit mine and the proposed jobs were unlikely to benefit the local people that live in and around the park who are highly dependent on agriculture, and would no longer be able to grow their own food to feed their families due to environmental pollution, urbanization and the mushrooming of the slums, to house migrant workers (Udoh, 2014). The Universities in Zambia failed to provide the necessary leadership in this case to inform all the necessary parties involved.

Limited Finance and Access

Education for the African Zambian was poorly funded and access was very limited under the colonial regime. Following Zambia's political independence and several democratic power-changes that have been made since 1964, the education sector, especially at university level, faces severe financial crises (Snelson, 1970; Kelly, 1991). For example, total public expenditure as far as disbursements to education sub-sectors are concerned, and as a percentage of GDP in 2003 was only 0.4%, and went to the university sector in the whole country (Lulat, 2003; MOE, 2005). This low funding has brought about a

tendency to seek funding from external sources. Usually, such funding is secured from private donors. This has its own implications, especially for quality research once funded by outside forces, in terms of its nature and impact on Zambian university education (Lulat, 2003; Teferra & Altbach, 2003).

The lack of finances has also resulted in failure, in terms of both the qualitative and quantitative expansion of the university learning systems. More than 50,000 pupils complete secondary school each year (Hampwaye & Mweemba, 2012). Of these, 30,000 or more obtain a full certificate, but higher education institutions only have the capacity to accommodate about 10,000 students. Also, there is still a losing battle being fought to maintain even low enrolment levels at postgraduate level, which has also contributed to poor and less academic research output. For example, between 2010 and 2012, the three public universities had a total enrolment of about 22,960 students. Of these, only 643 were master's students and 11 were enrolled at doctoral levels (Hampwaye & Mweemba, 2012). Also, in terms of gender, there are serious disparities, as enrolment patterns continue to show that more than 60 percent students are male (MoE 2005).

Research and Publication

Research and publication activities, which are a central priority for university education, are in a critical condition in Zambia (Hampwaye & Mweemba, 2012). The general state of research is poor and the research

infrastructure is inadequate. The university learning system in the country also faces the challenge of undertaking research that is relevant to the Zambian context, while at the same time conforming to the norms of world science.

The major causes of this include scarcity of laboratory equipment; few high-level experts and researchers with support needed to sustain publications; poor and dilapidated libraries; small salaries of faculty and research staff; rapid expansion of undergraduate education and shrinking graduate enrolments; poor oversight of research applicability; a restrictive environment that inhibits freedom of speech; a lack of commitment to and appreciation of journal production by university administrators; and declining, non-existent and unreliable sources of research funds (Jacobsson, 2002; Bloom et al., 2006).

It is interesting that despite this poor state of research and publication, publishing is still a measure for academic promotion at universities in Zambia (Teferra & Altbach, 2004). It is a situational irony that Zambian academics are expected to publish their work in an academic context that does not even provide access to world class databases and other authentic publications that inform new dynamic trends in world scientific and scholarly developments (Mundy, 2000; Ilon & Kantini, 2013).

The short supply of high skilled manpower in the universities, high poverty and illiteracy levels in the communities, poor research and publication countrywide and low community involvement in university education and vice

versa that characterizes the country is evidence of the unsustainability of university learning system in Zambia (Ilon & Kantini, 2013; Platteau, 2004; Bloom et al, 2006) . Even amid loud calls for better higher education, there is a stubborn lack of comprehensive progress in the university education.

Summary

There is still a lot that needs to be done in Zambia's university education sector, both in terms of the institutional viability of the learning systems and their role in social transformation. This was made particularly clear in the way the systems failed to engage local communities, tap into local knowledge systems and culture, cooperate with corporate companies and universities within and abroad, research output and publication, and improve access and gender balances. A deficit of intellectual leadership in and for local communities suggests that university learning systems continue to be uprooted and divorced from the realities and values of local communities, plunging them into a world circumscribed by the colonial legacies on which they were modelled. The continued rising demand, despite these problems, indicates that the Zambian people realize the value of university education, and, given a chance, are ready to do what it takes to access university education anywhere. It is in this spirit that GKI was founded, aiming at finding a university education model that not only contributes to the provision of university education Zambia, but is also of quality, is shaped by both local and global socioeconomic imperatives, and remains

consistent with the aspirations and needs of the Zambian local communities. The chapter that follows traces the origins of GKI, the people involved, and how it was designed and launched in Zambia.

Chapter 5: Global Knowledge Institute

The Global Knowledge Institute (GKI) is a prototype for an endogenous system of education that aims to contribute innovatively to the tackling of the challenges of university education systems in Africa and Zambia explored in Chapters 3 and 4. GKI was built collaboratively as an institute of research and graduate studies by local and global leaders, educational, business and consultancy professionals, and students working with the University of Zambia (UNZA), Seoul National University (SNU) in South Korea, and was later joined by the Georgia State University (GSU) from the United States. This network of people has a desire to find new innovative models for research and higher education in low resourced communities to solve endemic problems of underfunding, poor education quality, lack of integration of indigenous knowledge systems in curriculum and development, low research uptake, and uses advancements in ICTs and growing community of local and global partners. In this chapter, I give a background to the formulation of the GKI, and explore how the GKI was endogenously designed.

The GKI Background

GKI was born from a Parking Lot conversation between Lynn Ilon and myself in 2011. This conversation sparked the merging, and getting off the ground of ideas that had been worked on for years in each of our respective worlds.

Lynn Susan Ilon

During her thirty years of research, consultancy and lecturing in over twenty countries in various regions of the world, including the Middle East, the Pacific Islands, North America, Africa, and Asia, Lynn Ilon witnessed how development projects were unsustainable once donor aid was removed. After doing her own research, she came to a conclusion that the real problem to this unsustainability was failure and inability to incorporate local knowledge in the design, implementation and evaluation of development programs. In 1997, she thus decided to begin designing a system that would make it possible to incorporate local knowledge into development projects for sustainability. By 2001, her idea was complete and she named it the Global Knowledge Alliance (GKA).²⁵ Although the idea was complete in terms of its original thinking at the time, Lynn Ilon remained uncertain of how to get it off the ground until, the day in 2011, she and I had a conversation in one of the parking lots of SNU's College of Education.

M'zizi Samson Kantini

Before meeting Lynn Ilon in 2011, I had worked as a government employee,²⁶ cultural agent and advocate in Zambia for three years. While

²⁵ See the full concept of GKA that Lynn Ilon had developed by 2001 in Appendix 2.

²⁶ In 2010, I was employed as a teacher and posted to Nkulumashiba Secondary School on the Copperbelt Province of Zambia. This was after completing my degree program at UNZA in 2009. I pursued a Bachelor of Arts with Education

working with the government, I was working with UNZA as part time tutor in the School of Humanities and Social Sciences' Department of Literature and Languages. This Department had earmarked me for Staff Development Fellowship (SDF). SDF is a program by UNZA used to retain brilliant students for training and then recruit them as faculty upon graduation. It was not just my academic performance that captured the attention of the rank and file of UNZA to enlist me for SDF.

During my undergraduate studies, I founded a student movement for action and advocacy in reimagining the education sector in Zambia from a professional perspective that was informed by our diverse cultures and contexts. The movement was called, and still is, UNZA School of Education Association (UNZASEDA). A number of reasons made me work towards the founding of UNZASEDA.

The first reason was the poor state of UNZA in terms of governance, curriculum and pedagogy which, in my opinion, did, and still does, translate into the problems facing Zambia's education and development sector. This is because UNZA is the leading university in Zambia and presides over, directly and indirectly, so many colleges of education and training institutions across the country that produce the intellectual leaders and technocrats of the country in all areas of the economy. As a student studying education, it was a disturbing irony

degree program majoring in language and linguistics and minoring history ("parts of" African and European History).

that UNZA was failing to uphold the same ideals and principles of quality education that it was teaching me.²⁷

The second reason was how students enrolled in education programs and the majority of UNZA faculty manifested unmistakable disdain for the teaching profession. This disdain was reflected even in the general Zambian community. Generally, the faculty at UNZA never identified themselves as teachers. They proudly said they were not teachers, but lecturers. Yet, every day they were reporting for work at UNZA to teach. Similarly, students in education related programs were never proud. They always found ways of disassociating themselves from teaching. Even in terms of enrolment, the requirements to enter the Schools of Colleges of Education was not as competitive compared to their counterparts in law and accountancy, among others. This created a disparaging view that education programs and teaching were occupations for the less gifted intellectually, who, by nature of their less giftedness, so it seems, deserve meagre returns. Teaching and education were considered “poor professions” for the poor who can’t afford to find their way into prestigious professions. This reality was a troubling irony because if we claim education is the key for the country’s development, why were we, and still are, entrusting it in the hands of those we

²⁷ See extracts from my personal diary (Appendix 3) that detail my experiences and views of the governance, curriculum and pedagogy at UNZA and universities in Africa in general. The extracts also highlight my resolutions and reflections I made during my study at UNZA.

consider to be less gifted, the “emasculated poor”? This irony presented to me a disjunction between our education and our social progress, a serious problem that needed urgent redress.

The third reason had to do with tuition. From my first year at UNZA in 2005, I witnessed a lot of students having their enrolment rescinded for failing to pay tuition fees. Between 2006 and 2007, I too was almost deregistered for the same reason. What rescued me was a diplomatic protest²⁸ we mobilized and staged with my colleagues. We marched peacefully without slogans, chants or placards to the Ministry of Education Headquarters and later to State House.²⁹ All we had were questions and ideas – our view was that revolution should never be televised. Our talks with the Ministry of Education and Office of the President were fruitful. Over one hundred students who had the courage to follow our leadership on this “march to power” as we called it, were granted full government bursary for the rest of their studies at UNZA.

This experience gave me two lessons. First was that university education in my country was a province of the wealthy and powerful. Poor people were everyday forced to feel that it was a rare privilege for them to find themselves

²⁸ I call it a diplomatic protest because unlike typical student protests that are characterized by violence and breaking property, we peacefully walked to the Ministry of Education Headquarters and later to State House without any incident to meet and have talks with the Minister of Education and the President. The Minister at that time was Dr Brian Chituwo and the President was His Excellency the late President Levy Patrick Mwanawasa.

²⁹ State House is where the Republican President of Zambia lives and works from for his term of office as President of the country.

accepted and enrolled in the system. Because of this feeling, they succumbed to all manner of unprofessional treatment including being deregistered for being poor – lacking the capacity to pay tuition. In moments when they could not take this marginalization anymore, they did not talk, as they felt their voice of reason was not loud enough. They simply reacted by violent protests that have characterized UNZA since the 1970s. The second lesson was that it was not impossible to mobilize the marginalized, and reason with those in power to solve problems surrounding university education access and its related challenges in Zambia. The only thing that was missing is intellectual leadership that can bridge the two worlds of the rich and the poor, the theoretical and practical.

This conclusion was strengthened further when I read the history of the establishment and building of UNZA. It is recorded that local communities took part in the building of the university by providing resources in their own way, specifically, in the form of labor, fowls and animals (Musambachime, 1990). To me, the buildings of the university, its beauty and prestigious looking campus was thus a powerful symbol embodying the willingness of both the people and their government to not only make university education the highest priority, but also collectively make it accessible to all, in a manner that integrates the numerous ethnic groups and indigenous knowledges of the country and the world to foster science and technology in nation building under the slogan “One Zambia, One Nation”. If this was the case, then university was not a place for the

privileged and powerful alone. It was a place for all our people, it was universal, cutting across ethnicities, class, race, ideologies and affiliations.

With this thinking, I managed to mobilize my fellow students and founded UNZASEDA in 2008. UNZASEDA is operational within the framework of UNZA to this day. My graduation from UNZA did not end my advocacy tendencies. When I enrolled for the Masters program in 2010, I continued having talks with colleagues, particularly Moffat Gankhanani Moyo³⁰ on how best we could rethink our education in Zambia. This time around, the vision grew into a desire to have a trans-university network that linked intellectuals across Southern Africa with the rest of the world. Building from the ideas I had while establishing and running UNZASEDA, Moyo and I sat one evening to brainstorm the concept of the trans-university network for research and postgraduate education. We called what we came up with that evening the Southern African Institute of Postgraduate Studies (SAIPS).³¹ Having reached

³⁰ Gankhanani Moffat Moyo teaches literature, theatre and film at the University of Zambia. He is a PhD candidate studying Dialogism in Zambian literature. He has written and made several conference and seminar presentations on literature, culture and the arts while working with both local and international organisations including the United Nations Education, Science and Culture Organisation (UNESCO) Zambia National Commission, Helsinki Polytechnic University in Finland, Australian Institute of Business and Technology (AIBT), the British Council, IDP Australia and the University of Cambridge. His major interests lie in literary theory and criticism, cultural and performance studies, and stylistics. Gankhanani has degrees at bachelor and masters levels in Arts with Education and Literature from the University of Zambia

³¹ See the full concept note of SAIPS in Appendix 4.

this conclusion, the challenge we had was how to kick start SAIPS as well as define its management structure, revenue sources and sustainability.

The Parking Lot Conversation

In August 2010, UNZA put me on a new exchange program with SNU. Based on the agreement between the two universities, I was going to do my coursework at SNU, then carry out my research, write my thesis and graduate from Zambia. Towards the end of August 2010, I travelled to Seoul.³² Unfortunately, when I arrived at SNU, things were not as they had been communicated to me.

I found that my registration had been changed, without notice, from the academic program (Master of Arts in Literature) I had registered for to a different one. Even more, the courses I had registered for were not offered in English as SNU had earlier indicated during registration. The first impulse I had was to return to Zambia immediately. This impulse died out for two reasons. The first reason is that this move had undesirable consequences for the relationship between the two universities. Thus, the responsible officers were reluctant to see me return to Lusaka as a “failed experiment”. Indeed, I was, in a way, an experiment of the agreement between UNZA and SNU. I was the first student

³² After UNZA signed its agreement with SNU, students were needed to travel to SNU. A number of my fellow students I know declined the offer. A female colleague of mine and myself accepted the offer. But 3 days before travelling, after everything was processed including our VISAs, itineraries and scholarships, my colleague changed her mind and withdrew. So I travelled alone.

who travelled from UNZA to SNU under the auspices of the Memorandum of Understanding (MoU) entered into by the two institutions. In fact, I am the one who carried the official signed documentation from Zambia to Korea. Thus, whatever was to happen to me was, in a way, a symbolic representation of the beginning and future of the work relationship between UNZA and SNU. The second reason was that I was determined to study in Korea.³³ So, I searched through various programs offered by SNU, particularly from its College of Education. I found an interdisciplinary graduate program in global education corporation that I liked. I considered the option of switching to this program. The challenge however was that UNZA, the university that was supposed to graduate me, had no program “equivalent” to this one. So, while SNU immediately accepted my consideration, UNZA seemed reluctant. UNZA was even unwilling to accept introducing this new program (a possibility that SNU had considered) in Zambia to be administered by the two universities.³⁴ It is at this point that I

³³ In the preliminary pages of this dissertation is a succinct explanation of why, when many colleagues around me had a different view, I chose to pursue my graduate studies in Korea.

³⁴ Despite this challenge, SNU and UNZA resolved my issue. I changed the program of study to Global Education Corporation and my credits from there were transferred into a new program at UNZA: M.Ed. in Education and Development. I was only graduated in 2013 although I finished everything as a student within twenty months (September 2010 to April, 2012). UNZA took six months to examine my dissertation. To process documentation and write me a confirmation of graduation took another six months. To print my degree certificate, it took about two years. This almost cost me my PhD at SNU that required me to present the original degree certificate within six months after

told Lynn Ilon I had an idea of how this program and the willingness of SNU to work with universities in Africa could be used to open an institute of research and postgraduate studies in Zambia. More than facilitating my earning a master's degree, I had seen in this situation an opportunity I so much needed to launch SAIPS.

Lynn Ilon found herself amid all of this because she had been entrusted by SNU to help the institution to forge international partnerships with universities in Africa. The first and successful partnership she facilitated was with UNZA, and I was the living testimony to this success. I embodied both the success of the newly born friendship between UNZA and SNU and Lynn Ilon's achievement as the midwife of the same.

This is how she and I found ourselves in a Parking Lot one evening discussing possible strategies for solving my problem. As things unfolded, my suggested solution to Lynn Ilon meant much more to her just like it did to me. I did not realize this until when she later invited me to her apartment to explain fully what I was thinking about my suggested solution. My explanation was an epiphany to her: she saw GKA taking off the ground. When she in turn explained GKA to me, I saw the SAIPS vision realized. The conversations and actions that followed after this evening is what birthed the Global Knowledge Institute (GKI).

registering as a student. I enrolled for a PhD at SNU in 2013 and my degree certificate from UNZA was only ready in 2015.

GKI Endogenous Model

Every defined situation has its limitations. A situation is a viewpoint that limits the possibility of vision. Thus, at the crux of the concept of situation is the idea of horizon. Horizon is the “range of vision that includes everything that can be seen from a particular vantage point” (historical cultural context of a thinking person) (Gadamer, 1997, p. 302). Every rational human being has a horizon or at least ought to have a horizon. Horizon “characterizes the way in which thought is tied to its finite present reality, and the way one’s range of vision is gradually expanded” (Gadamer, 1997, p. 302). Accordingly, for a thinking mind, we can talk about “narrowness of horizon, the possible expansion of horizon, the opening up of new horizons,” the fusion of horizons and so on (Gadamer, 1997, p. 302). Tragedy is to have no horizon because

a person who has no horizon does not see far enough and hence over-values what is nearest to him. On the other hand, “to have a horizon” means not being limited to what is nearby but being able to see beyond it. A person who has an horizon knows the relative significance of everything within this horizon, whether it is near or far, great or small. To change a situation means acquiring the right horizon of inquiry for the questions evoked by the encounter with tradition (Gadamer, 1997, p. 306).

In fact the horizon of the present is in the process of constant formation because we are continually having to reexamine our conceptions and preconceptions. An important part of this examination occurs in “encountering the past and in understanding the tradition from which we come. Hence the horizon of the present cannot be formed without the past” (Gadamer, 1997, p.

306). There is no more an isolated horizon of the present in itself than there are historical horizons which have to be acquired. Rather, understanding and transformation is always the fusion of these horizons supposedly existing by themselves (Gadamer, 1997, p. 306).

In the context of the birth of GKI, Lynn Ilon and I had horizons, the GKA and SAIPS respectively. That these were defined situations, each one of us and our networks had limitations inherent in our own historical cultural context to which our thought was tied (hence our ideas had remained on paper and in our heads and not happening on the ground) until after the Parking Lot Conversation. That conversation sparked the fusion of horizons into one big horizon transposed into our historical horizons, not in a syncretic way that merely heaps ideas in unconnected patterns; instead, an eclectic way that results into one great horizon that moves from within and that, beyond the frontiers of the present, embraces the historical depths of our self-consciousness to shape this moving horizon out of which its innovation lives, and which determines it as something that is owned by everyone who becomes a part of it, and a source of learning for all who choose to study it.

It should be noted that GKI since its inception has not moved solely because of Lynn Ilon and myself. Being a horizon in its own right makes it assume a finite present reality that therefore limits it. To address this limitation means acquiring the right horizon of inquiry for the questions evoked by the

encounter with tradition. Thus GKI is best looked at as, rather, something into which our horizons moved and which moves with us. If it moves with us, then it means it changes because every day as we talked and moved around, we met and continue to meet, new people, meaning new horizons. GKI's evolution and revolution of innovation is therefore a result of the continuous merging of horizons as new people join and the big horizon becomes bigger.

I have begun by giving you this historical consciousness and transposing it into the historical horizons of Lynn Ilon and myself to set in motion another merging of the horizons between you, the reader, and myself in this study. Our new horizon should constitute the one great horizon that moves from within and that moves beyond the frontiers of the present inadequacies and adequacies that may be found in a researcher studying and writing about an idea he so loves. Our one great horizon should give us shared historical depths of self-consciousness that should objectively look at how, and direct the way, the GKI moves out of that historical consciousness to continue shaping it into a living thing that is exciting and practical.

Building from that historical consciousness, the conversations between Lynn Ilon and I that began so casually, intensified and became contagious to include more professors from UNZA, SNU, and later GSU (see Appendix 5). The intensity and contagion of the conversations happened after we reached a consensus of naming and launching "our merged big horizon" as the Global

Knowledge Institute (GKI), a division of the Global Knowledge Alliance (GKA).³⁵ The involvement of people including professional and novice scholars, researchers and business people from the three countries, Zambia, Korea and USA, came with it two concepts and changes that became the primary driving force to model the GKI as an endogenous system.

The first driving concept was the changing in the economics of learning. Traditionally, university education systems have been planned around capital resources – buildings, libraries, campuses, massive infrastructure (roads, water, utilities, technology) and the faculty. Systems had to be planned this way, as access to the sources of knowledge was scarce and expensive. The education systems were amassed in one location and students travelled to that location to access the professor, books and technology that could deliver the knowledge.

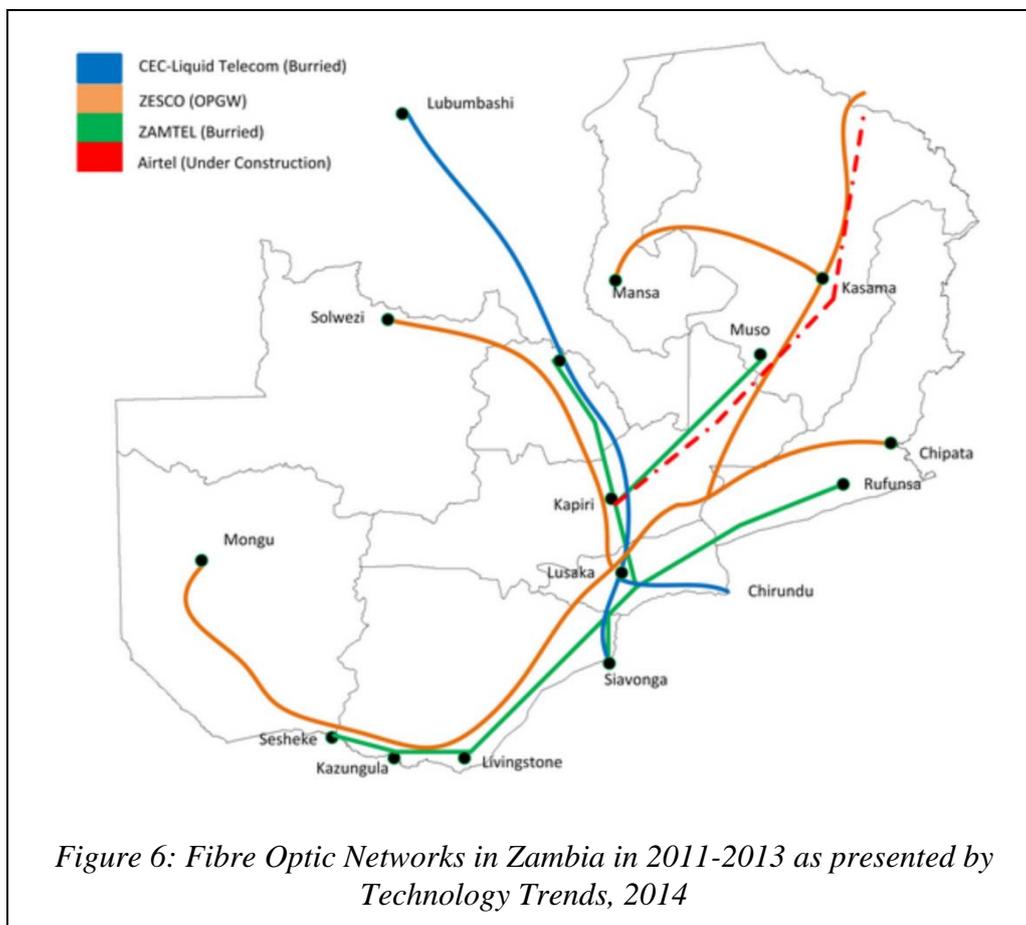
³⁵ We agreed that GKA, the maiden name of Lynn Ilon's idea, was going to be the name of the umbrella body, or a consortium of, the GKIs to be established around the world. I do not detail much about GKA because as an umbrella body, it is not, and has no bearing on, the subject of this study. This is because GKA is not about higher education. It is broadly concerned about empowering communities to build innovative solutions linking local and global expertise. This empowerment can be achieved through many and different mechanisms one of which is education. Education as well is multifaceted and one of the many faces of education one can choose is university education. It is empowerment that comes with and through university education that I am interested in, and particularly how, the learning system is designed and put to use, that is, the GKI, a local learning and research university system in Zambia. GKA therefore cannot be reduced to GKI and GKI is not representative of the GKA as the umbrella organization. But GKI is representative of the subject of this study, that is, endogenization (sustainability) of university education systems in Africa and Zambia.

This required that campuses the size of small towns be built – usually with great capital and ongoing huge expenses.

But sources of knowledge are becoming increasingly cheap and ubiquitous through digitization. They do not require a bus or car ride to be accessed any longer – even in the poorest countries. Especially in poor countries, the cost of transportation and access to these campuses is often prohibitively expensive, but access to cell phone data networks is being driven down by competition and new underwater fiber optic sea cables (Song, 2014). Zambia has installed a fibre optic across the country (see Figure 6).

The second driving concept is rethinking curriculum and pedagogy. As with the customization of products throughout the world, technology can now allow for the easy and quick customization of curriculum. Global experts can put together the materials they consider to be widely applicable throughout the world, and local experts can be used to find materials that apply to the local context.

In addition, recent research shows that students learn better when the classroom is “flipped” – that is when students learn the materials (often through technology delivery) before arriving in the classroom and then use collective classroom time to build knowledge together (Ferenstein, 2012; Kronholz, 2012). Other research shows that learning occurs best when it can be applied within a situated socially defined context (Wegerif, 1998; Wenger, 2000).



These two changes placed importance on multiple sources of knowledge which make it possible to rethink curriculum and pedagogy in more creative ways than old-aged industrial education. These changes are important with regard to higher education institutions of poor countries seeking to integrate learning processes into the community. There is no reason why the general knowledge that can be culled from experts (accessed through the internet) cannot be adapted to local contexts of communities and institutions. This learning system is formed organically from community networks and resources in a

manner that is environmentally sustainable, economically viable, politically supported and socially responsible (Morrison, 2008).

The above primary driving concepts helped to refine and design GKI endogenously. Two core elements juxtaposing the two features of the endogenous theory – knowledge as currency and multiple knowledges – constituted the GKI model. The two elements are Economic and Institutional Strategy, and Research and Learning Strategy.

Economic and Institutional Strategy

The economic and institutional strategy, while juxtaposing the features of knowledge as currency embodies, elements from both knowledge as currency and multiple knowledges. This element defined the incentive system of the GKI. The incentive system was modelled to be knowledge driven. All people that were to be involved in GKI were supposed to bring in knowledge and take away (to be rewarded) knowledge. No one would be rewarded and find space in GKI using money. This means that even students enrolled at GKI would not have to pay tuition. It is the process of bringing in and taking away knowledge that would create value and in the long run generate resources including money. Thus, while in the beginning there would be no monetary rewards, there would be some in the end. Nonetheless, monetary considerations would not be the main source of motivation.

The knowledge exchange process was decided to follow a network design that interfaces local and global knowledge and allows for a wider participation of people from diverse backgrounds. This wider participatory networking would be enabled by technology, including the internet, mobile cell phone networks, and electronic devices such as computers, tablets and mobile phones. Given the network design, the management of the affairs and processes of the GKI would be wirearchical rather than hierarchical. Wirearchical comes from the word wirearchy, which means “a dynamic flow of power and authority, based on knowledge, trust, credibility and a focus on results, enabled by interconnected people and technology” (Husband, 2013, par 8).

The notion of wirearchy comes from the fact that whatever we do in the digital age is wired. In a wirearchical system, purposeful human activities and the structures in which they are contained are evolved from the traditional top-down and contemporary bottom up direction and supervision (hierarchy’s *command-and-control*) to *champion-and-channel*: championing ideas and innovation, and channeling time, energy, authority and resources to testing those ideas and the possibilities for innovation carried in the ideas (Husband, 2013, par 5). So, it is not about who is at the top (top heavy) or who is at the bottom (bottom heavy). It is about what is the issue at hand and then who has the necessary knowledge and capacity to help focus collaborative efforts of the network dealing with that particular issue to find a sustainable solution or have a

better understanding of the issue. This does not make leadership obsolete. It actually makes it more purposeful. The role of leaders becomes identifying talent and matching it with interests, likes and complimentary minds around complex issues. Also, wirearchy does not obscure hierarchy or nullify the need for direction and control. In fact it makes them more necessary because it is these that wirearchy transforms in terms of form, function and meaning. Whereas hierarchies evolve, wirearchies emerge and transform. Also, while “hierarchy is a stability-based predictability, power and control” phenomenon, a wirearchy is an “ongoing flow of flexibility, integration and innovation” one (Husband, 2013, par 5).

What should be noted however is that it is near impossible to imagine that the same paradigms and assumptions that helped to create the prevailing hierarchies in social institutions like universities can be used to usher in a new era. The wirearchy alternative gives a chance for a system to develop itself endogenously while at the same time changing the old paradigms and assumptions on which universities as systems have for centuries been based (Weenen, 2000). This approach requires a totally different institutional context empowered by the power of an enormous variety of networks all around the world, valuing formal and informal knowledge systems equally (Weenen, 2000). It is such a context that designed the GKI, a context that forms an international centre whose mission is not to purvey universal knowledge to an elite, but rather

focus on how to realize a sustainable future for everyone (Ferrer-Balas et al., 2008). The suitable name for such an endogenous future oriented learning system would be “Sustainability Ecosystem” rather than “University” (Weenen, 2000).

When knowledge is the currency for conducting business and wirearchy is the approach to the management of such business, research and learning become the only competitive advantage of a system. This is because you have to constantly observe, learn and reimagine processes as new knowledges emerge and situations change. Accordingly, the second design element of GKI is research and learning.

Research and Learning Strategy

The research and learning element of the GKI design was meant to harness the multiple knowledges feature of the endogenous theory. Like the economic and institutional strategy, this element embodies features of the knowledge as currency as well. I define this element simply as transformative learning aimed at both institutional and community social transformation.

GKI conceived its research and learning as a transformative process. This is a kind of research and learning that develops, assesses or rewards the critical thinking skills of people involved and their capability to find sustainable solutions to complex challenges of society (Sawyer, 2004, 2006; Freire, 1973). Transformative learning values reflexivity and treats knowledge not only as a commodity, but as a richly textured process of paradigmatic shifts in the social,

economic, political and cultural life of the universe (Freire, 1973; Salvatori, 1996; Sawyer, 2006; Sterling, Maxey & Luna, 2013). Thus, transformative learning cuts across and through disciplinary boundaries of knowledge to contextually capture, innovate and create new ideas without rigid hierarchies of academia. It is a “transdisciplinary process of epistemic transformation: of the facilitated development of high order thinking and moral competencies that are hardly addressed within the traditional academy” (Sterling et. al., 2013, p. 963).

Transformative learning makes a system

a ‘hub’ of social transformation and social learning, independence of thought, critical debate and social critique that feed imagination and re-imagination that is creative, productive, and intellectually rich and stimulating for a more sustainable, just and equitable future” (Sterling et al., 2013, p. 962).

In the GKI design, I locate three main facets that define transformative learning: situated learning, wider participation and lifelong learning. Situated learning focuses on the process of knowledge and meaning constructing in local contexts and a “cultural incubator”. This means that learning emerges through processes of dialogue in real contexts that are open to, and respect, cultural diversity and multiple sources of knowledge (Zirschky, 2009). Learning through collaborative social interaction and learning through collective social knowledge creation is essential for transformative learning (Lave & Wenger, 1990; Brown, Collins & Duguid, 1989). The focus for this kind of learning is local community engagement that is oriented towards a societal collective problem-solving

learning system. This democratizes learning, knowledge and practice (Freire, 1973).

In this regard, GKI as an endogenous university learning system was designed to treat itself as a community before it is engaged with industry, organizations and institutions within and outside its network. Together, these constitute a community learning ecosystem (Waas, Hugé, Ceulemans, Lambrechts, Vandenabeele, Lozano & Wright, 2012). GKI was not focused on situating its learning by getting involved with “the other” communities before it became an integral part of the processes of local and global communities. This helped to avoid the rupture between the community engagement that is professed and how the university system is actually managed, including how the programs are designed, what constitutes the content of such programs, and how they are delivered. It is noteworthy that while many universities talk about community engagement, that is, situated learning, their guiding ethos, outlook and aspirations, governance, research, curriculum, community links, campus management, monitoring and modus operandi does not seek explicitly to explore, develop, contribute to, embody and manifest – critically and reflexively – the kinds of values, concepts and ideas, challenges and approaches that are emerging from the endogenous precepts of situated learning discourse (Waas et al., 2012).

The GKI endogenous model’s situated learning begins with a total reorientation and contextual reconfiguration of the curriculum, and the

engagement of lecturer and student communities within networks to do research of local conditions that contributes towards solving pressing real world issues and challenges (Sterling, Maxey & Luna, 2013). This involves a “whole systems” approach for a learning system, its subsystems (all activities and the way it is organized) and their linkages to the need of fundamental system adjustments. This process organically generates interlinkages and interfaces between local and global communities shaped more and more by the precepts of the endogenous theory (Sterling, Maxey & Luna, 2013).

If learning is to contribute towards social transformation, it does not only need to be situated. It should encourage wider participation: all the inhabitants of a particular context or community wherein such learning is situated should have an opportunity to take part in, and be part of, the learning process. The mission of a university should therefore not be to purvey universal knowledge to an elite. It should be to facilitate universal access to university education, especially for those who were traditionally deprived of it, due to their isolation, socio-economic and political status, ethnicity, gender and other diverse dimensions of social differentiation (Peters, Liu & Ondercin, 2012; Chan & Gary, 2013; Kantini, 2014). Access here is not one dimensional, that is, marginalized groups accessing university education. It is two dimensional: university education systems access marginalized groups and their knowledge, and vice versa. It does not only mean access or wider participation in education, but development

opportunities around the world. This is why Thurow (1994) argued that in the 21st Century economy onwards, both the skilled and unskilled in the first world are going to have to compete with those living in the third world because learning is the only one “source of sustainable competitive advantage. Everything else is available to everyone on a more or less equal access basis” (pp. 51-52). Higher learning for all, therefore, is the ultimate goal of the GKI design.

When learning is situated and allows for wider participation, it fully embodies a way of life of the people concerned. The way of life of people becomes learning and society transforms into the school (Dewey, 1915). This is an education order that goes beyond the one-off dose of school and university. It is lifelong learning. The rigid divisions of knowledge and evaluation methods which are largely based on the symbolic and the economic value of certificates are rethought (Field, 2006; Bereiter, 2002; Drucker, 1993). In setting new parameters of learning as lifelong, the GKI endogenous model was deliberately made to focus more on the process and practice of learning. This is because of the problem that has been persistent in education and development practice of lifelong learning. The problem is that lifelong learning is

still looked at as a tool for producing skilled labourers and its repackaging of subjects beyond formal schooling and college. And researchers have not been immune from these trends: many studies of adult learning have been published that refer to lifelong learning in the title, without much sign that the authors have reframed their focus and analysis in ways that reflect an important new conceptual framework. This applies to academics: universities have introduced programs and courses dubbed as lifelong learning but the

management, content and administering of the same course programs is that of the old school of thought – human capital. This is devaluing lifelong learning as a concept of reality (Field, 2006, p. 3).

GKI's understanding of transformative learning, as lifelong learning, is a networked view of education that explores and employs social networks of knowledge production and its transmission, as well as the material nature of the environment within which this occurs, such as print and digital media (Chatti, Jarke, & Frosch-Wilke, 2007). The social networks, locally manifested and globally linked, are used as a source of learning, creativity and collective knowledge building (Jarvela, Naykki, Laru, & Luokkanen, 2007).

Functionality of the GKI Model

After the completion of the design, GKI was modelled to take off and operate on the ground through two processes: a global network and a graduate learning system.

Global Network

The GKI global network was conceptualized as a framework that creates appropriate collaborative learning and knowledge exchanges across institutional, geographical, cultural and disciplinary boundaries (Royal Society, 2011; Goggin, 2012). Such collaborative exchanges were to be embedded in all learning and research experiences to ensure that different actors all over the world pool their resources, both human and material, to address pressing societal challenges, serve as think tanks and as bridge builders between academia, civil society, local communities, research and policy-making, establish new learning initiatives,

generate innovation, promote cultural diversity, enhance regional and sub-regional cooperation, and engender lifelong learning (UNESCO, n.d.). The network was to foster among all participants a transformative care for the world and for those with whom we share it. This would require a readiness to think critically together in new ways that inspire generations with a deep sense of global citizenship and collective responsibility.

The global network, as a framework, was to be made up of interested local participants (people in Zambia) and global ones (people outside Zambia). The networking of these participants was made possible by an “endogenous use of technology.”

The endogenous approach to technology involves mainstreaming the ubiquity of social media and other software applications in education, in such a way that local and global knowledge are well interfaced. The goal of using technology in education this way is to foster the capacity development of new knowledge and inspiring new forms of learning that harness a wide range of perspectives and viewpoints. Some scholars have shown that the use of technology results in the emergence of data-driven learning and assessment, integration of online, blended, and collaborative learning, and the shift of the role of students and communities in development from consumers to prosumers – producers and consumers – of knowledge (Facer, 2011; Johnson, Adams, Estrada & Freeman, 2014). There is a consensus among many higher education thought

leaders that agile startup models through endogenous uses of technology can lead to the more efficient implementation of new practices and pedagogies (Johnson et al., 2014; (Ferrer-Balas, Adachi, Banas, Davidson, Hoshikoshi, Mishra, Motodoa, Onga & Ostwald, 2008). This is because startup models like the GKI have a great affinity towards locally driven approaches that use technology as a catalyst for promoting a culture of innovation in a more widespread, cost-effective manner, with an entrepreneurial spirit, emphasizing on both formal and informal programs that build community and students' interests in solving social and global problems, creating products, and contributing content to help existing social projects (Berge, 2000; Johnson et al., 2014).

It was decided, therefore, that GKI would have a website with an intranet that allows for the formation of groups, email accounts, storage and exchange of information. Given that internet connectivity in Zambia till now is slow, GKI would have computers, tablets and mobile phones that would be useable offline with similar materials that one would use when online.

Graduate Learning System

The GKI graduate learning system was designed as, what I call, a “Knowledge Community Ecosystem”. This is adapted from knowledge community approaches and scaffolded inquiry (see Brown and Campione, 1994; Slotta & Najafi, 2013). The Knowledge Community Ecosystem has “a sufficiently high level of abstraction to allow flexibility for designs and

application” (Slotta & Najafi, 2013, pp. 99). The ecosystem is divided into two levels, the program and course levels. Each level contains three basic principles that apply spirally.

Program Level Principles

The principles at the program level are that the program should be a learning process that is free, connected, and collective. Free learning means that the program should be able to deliver learning resources and provide educational opportunities without the constraints of traditional education actors; where those resources and opportunities can be both virtual and physical. This should result in desegregation. Desegregation means providing learning resources and education opportunities that were previously unavailable to members of all races and ethnicities in a way that is not impeded by traditional actors that failed to provide, or prevented access, by charging exorbitant tuition fees for example, to such resources and opportunities. Because the economics have changed such that local knowledge has global value, the knowledge constructed while learners learn is partly turned into revenue and funds the operations – making the system tuition free.

The principle of connected learning means that the learning process should occur neither solely through the education institutions nor similar agencies, but through a network of actors and institutions that are connected and can act together both through virtual and physical connections. This should result

in digital inclusion. The program should be able to enable those in technologically low-resourced communities to become both producers and consumers of digital and non-digital content, and to develop ICT-enabled learning and appropriate technological practices to such an extent that they start to innovate. Because the economics have changed, all members of the linked learning community – from local learners to global researchers – are, in fact, both learners and researchers, producers and consumers of knowledge. So, this connected learning has inherent rewards for the participation of everyone.

Given the ICT- enabled empowerment of the networked participants, under the collective learning principle, learning should emerge from within local, and shared across global, communities. This should lead to collective action that is enabling communities and individuals to build together and share mutual problem solving strategies that bear in the service of economic and socio-political agendas. This collective learning produces collective knowledge that has value for a variety of communities. For local environments, the collective knowledge building teams can focus on the dynamics of specific communities and synergize development. At global levels, new information can be generated about how communities become resilient or succumb to global pressures. For research communities, both the process and output of the learning dynamics are rich research material.

Course Level Principles

At course level, the three principles include: (1) linked knowledge base construction, (2) linked knowledge base utilization and (3) social value creation.

The first principle, “linked knowledge base construction”, requires that a course is built from a collective effort and involves a collaborative process or intelligence of the crowds. The crowd begins with two or more people. Thus, subject experts work with students, professionals (usually from organizations, universities and government agencies) and local communities as a network to collectively construct a base for a collection of learning materials in different forms and formats. This process is seen as a knowledge machine for knowledge building, sharing and integration and it is called Collaborative Knowledge Construction whose four elements – subject expert, students, professionals and local communities – interact continuously both virtually and physically, based on their interest and convenience. The consequent base created by the knowledge machine is called Community Linked Knowledge Base.

The Community Linked Knowledge Base is the central piece of the GKI learning environment model. It is filled up with ideas that evolve continuously as students, subject experts, local and professional communities add to or improve upon them during a collaborative knowledge construction process, scaffolded learning, and course or program evaluation activities. The base is therefore used as a resource both within student inquiry projects and local community engagement activities throughout the curriculum.

The second course level principle, “linked knowledge base utilization”, involves a sequence of collaboration inquiry activities that draw upon the linked knowledge base as a resource. The collaboration inquiry activities are called “Scaffolded Learning Activities”, and are designed to address specific learning goals. These activities help curriculum designers to assess the learning outcomes in terms of the required local or government standards, and help to set the focus of learning standards.

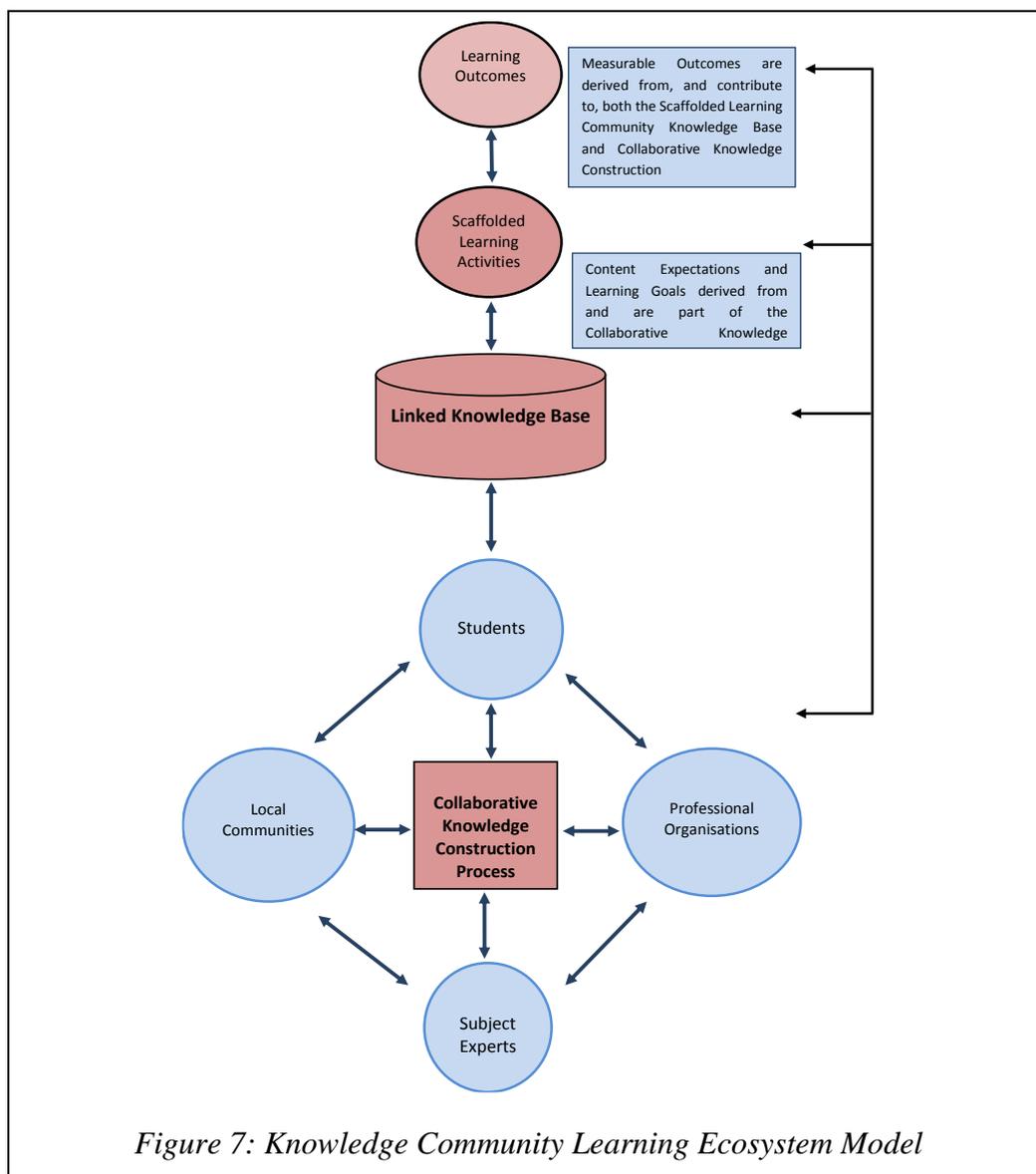
The activities take three forms. First is the collaborative form, where students work in small groups with clearly specified roles and goals. Second is the collective form where all students in the class work in parallel (including some cross-talk) to address a broad inquiry topic. Lastly is individualized form that involves individual work, particularly write-ups to ensure students can write their logic – a skill which is useful for their scholarly publication work. The inquiry activities are designed in such a way that they engage students in using the knowledge linked base as a resource. Thus, linked knowledge base utilization blends the use of collaborative knowledge construction with scaffolded inquiry activities to ensure that students are engaged and that their efforts focus directly on the relevant course elements.

The last course principle is “social value creation”. Under this principle every course is required to have value both to the individual learners and their community. The inquiry activities are therefore required to address the basic

themes that emerge within the network and result in two things. Firstly, they should result in assessable or learning outcomes that are indexed to the learning goals. The learning goals focus on twenty-first century skills that are divided into (i) ways of thinking: which involves creativity, critical thinking, problem-solving, decision-making and innovation; (ii) ways of working that basically encompasses communication and collaboration; (iii) tools for working, the most critical one being information and communications technology (ICT) and information literacies; (iv) skills for living in the world - citizenship, life and career, and personal and social responsibility (UNESCO, 2005; OECD, 1996, 2000). Secondly, the inquiry activities should result in community development project ideas. Students engage communities of their choice and matching their interest from the beginning of their study to accomplish a twofold community engagement plan, that is, community profiling and community research project designing.

Community profiling is a continuous activity which focuses on writing a wiki or blog of a chosen community. As the learners engage the community, they write about the community and analyze different issues and experiences they encounter. The community research project is the learner's final learning/research project which constitutes their dissertation. Out of the many issues they encounter and write about in the community profiling process, learners have to choose one issue to concentrate on and work with different

community interest groups and stakeholders, as well as consider external interest groups and stakeholders as well. The goal is to work towards finding a sustainable way of addressing that issue.



The program and course level principles constituted the GKI graduate learning system (Knowledge Community Ecosystem), that begin with a

collaborative knowledge construction phase where students, subject experts, local communities and professional organizations explore the conceptual domain, articulate their own ideas, and create a community linked knowledge base. Next, inquiry activities are defined that scaffold students in developing a deep understanding of targeted course areas and topics, with the community linked knowledge base serving as a key resource (see Figure 7).

Launch of the GKI in Zambia

The launch of the GKI in Zambia was in four phases: registration and incorporation of GKI, establishing the learning center, the enrolling of students, and the official GKI opening.

Registration and incorporation of GKI in Zambia

GKI was incorporated in Zambia under the name Global Knowledge Alliance Limited (GKA) on 26th January 2011. It was incorporated as GKA Limited because GKI was designed to be a division of the GKA. According to Zambian regulations then, for any educational institution to be accredited, it was required to first register as a company. Appendix 6 shows the certificates of registration and incorporation.

Having been registered and incorporated, the GKI was advised by the Government Republic of Zambia's Ministry of Education to open doors to its first students. Accreditation was going to be given after the institute had proved that it could operate and had its act together on the ground. The Ministry only

offered GKI a letter of recognition (See Appendix 7). Accordingly, between, February 2011 and April 2012, GKI worked on establishing a virtual and physical learning space, and enrolling students.

The GKI Learning Space

The GKI learning space was made up of the physical space and the virtual interface. The physical space was established for learning and administrative operations in Zambia.



Figure 8: GKI Learning Centre at UNZA Ridgeway Campus

The space for the GKI Learning Centre was secured without payment of rentals, water, electricity or security bills, but just exchange of knowledge with

UNZA, particularly, the School of Medicine. As the Dean of UNZA School of

Medicine wrote in part:

As Dean of the Medical School of the University of Zambia I have been happy to see the progress of the Global Knowledge Institute....I am excited about the prospects of this non-profit enterprise and believe it could be a successful, genuine alternative university design...The medical school would like to be a partner by contributing both office and classroom space for the activities contributing to the processes of student learning. In so doing, we see that our medical students might also benefit from the technology and technological learning environment brought in by the GKI. I look forward to us working together this year and, possibly, renewing the relationship in future years (F. M. Goma, personal communication, February, 10, 2011). To consolidate this arrangement with the School of Medicine, a Memorandum of Understanding (MoU)³⁶ was made and entered into between GKI and the UNZA Council to provide premises for operations.

This process took the whole year, that is, from March 2011 to February 2012.

After the MoU was signed on 27th February, 2012, the months of March and April, 2012 were used to make the learning centre operational. GKI was only permitted to occupy a portion of a building, and it furnished that part (see Figure 8). Unlike the physical space, the virtual interface was completed as early as March, 2011. The main component of the virtual space was an institutional website (<http://www.gkinstitute.com/>) (See Figure 9).

³⁶ See the full MoU document in Appendix 8.



Figure 9: GKI institutional website

The GKI website was designed with the intranet, mygki.gkinstitute.com, accessible only to the GKI members. The intranet hosted the curriculum, discussions and meeting minutes, emails and institutional documentation. Figure 10 shows the program website in the intranet where students access the curriculum online and submit their work. But given that internet connectivity is not always good in Zambia, the curriculum was also placed on each student's laptop. Two external hard drives including the office desktop computer at the GKI learning centre were used to back up the curriculum and institutional documentation. This also made it possible to access any information offline. For internet access, a company called Microlink was contracted to wire the physical learning centre in Zambia.



Figure 10: Intranet website for GKI master's program

Student Enrolment

When the learning space was ready, the GKI conducted interviews (Figure 11) and enrolled ten students.³⁷

³⁷ There were four female and six male applicants who were selected for the first cohort from a total of fifty applications that had been received.



Figure 11: GKI Interviews of its first cohort master's students

Official Launch of GKI Zambia

In March, 2011, the GKI was officially launched (see Figure 12 showing selected photos of the launch).



Figure 12: Selected captions of GKI student interviews for the first cohort

At the time GKI was being launched,³⁸ the entirety of its network had a total of fifteen people working together between Zambia and Korea. Locally, that

³⁸ Several prospective students from the University of Zambia attended the launch and some representatives from organizations such as the World Vision. The entire local GKI network was present. From Korea only one graduate student attended. I was present and an integral part of the organizing crew for this whole event.

is in Zambia, there were three lecturers³⁹ and one graduate student⁴⁰ from UNZA with areas of specialization in education, development, medical research and humanities. Also, there were two executive officials⁴¹ from a local Zambian Non-Governmental Organization (NGO), Crystal Consulting.⁴² In Korea, there were four lecturers⁴³ and six students⁴⁴ (one undergraduate and five graduate candidates) from SNU with areas of specialization in knowledge economics, computer engineering, arts history, archeology, global education cooperation, lifelong education, agriculture economics, global business administration and business studies. There was also an officer⁴⁵ from a local Korean NGO, Reshaping Development Institute (ReDI).⁴⁶ The Network that the Zambian and Korean teams had formed brought together a wealth of knowledge and experience gained from many years working in various organizations from literally all sectors of the economy including agriculture, education, health,

³⁹ Gankhanani Moffat Moyo, Sitwe Benson Mkandawire and Costantine Malama

⁴⁰ Christine George Mwanza

⁴¹ The Crystal Consulting executive officers were Patrick Chilumba, the Director, and Zandile Mukumba, the chief accountant.

⁴² Crystal Consulting offers research and consultancy services in Lusaka, Zambia, in various areas of economics, agriculture, education, development, monitoring and evaluation and their related areas.

⁴³ The lecturers included Lynn Ilon, Jorn Altmann, David Wright and Christine Wright (see summaries of their profiles in Appendix 5).

⁴⁴ The students included Kent Kamasumba, Omer Gibreel, Yujin Lee, Sohee Won, Rayton Kwembe and myself (see summaries of our profiles in Appendix 5).

⁴⁵ The ReDI officer was called Moonsuk Hong, a researcher and director at ReDI.

⁴⁶ ReDI offers research and consultancy services in Seoul, Korea, in various areas of education, development, monitoring and evaluation and their related areas.

Information and Communication Technologies (ICTs), monitoring and evaluation, human development, poverty, social impact assessment, environment and climate, social security and vulnerability assessment, and water and sanitation, among others. As their profiles show (see Appendix 5), these participants had carried out many research studies, worked with many SMEs at various levels, led and participated on various projects for the World Bank, World Vision, World Health Organisation, World Food Programme, the United Nations and its agencies, and several local and global NGOs. They had experiences in teaching and managing educational related projects and consulted in over 30 countries for the World Bank, Havard University, the United Nations, Education Testing Service, the U.S. Agency for International Development, Department for International Development (UK), the Asian Development Bank, the African Development Bank, UNESCO, several national governments and their agencies and foundations. Furthermore, they had lived in various parts of the world, both in low and high income communities, including various countries in Africa, Europe, the Middle East, Pacific Islands, North America, South and East Asia.

Summary

The GKI endogenous university model has two elements – economic and institutional strategy, and research and learning strategy – whose features juxtapose the two concepts of the endogenous theory – knowledge as currency

and multiples knowledges. The model questions the socioeconomic and epistemological foundations that many learning systems, especially universities in contemporary Africa, are working with. It recalibrates the meaning of learning and knowledge as the world changes and new ideas and insights emerge. The manner in which this model was made to take off from the ground demonstrates that GKI strives towards universal access to higher education, transformative learning, creative technology usage that enhances local community engagement, global networking and scientific progress. What would be of particular notice to anyone on this design is that issues of funding and infrastructure did not constitute the core design elements of how the university should run. There are identifiable reasons to explain this, apart from the fact that the model is endogenously derived – it uses knowledge as currency to run the system.

Monetary incentives and infrastructure which preoccupied especially the development aid agenda over half a century have not helped to make universities in Africa sustainable. Citing this development aid example should not be construed to suggest that aid entails curing or causing developmental social ills. Aid is “equality and equity free”, hence there is enormous evidence now showing that aid is in fact more prone to further “inequality and inequity unless directed by humans – knowledge and understanding – into equitable channels” (Bardon, 2008, p. 15). The question is, how have those humans been educated and socialized?

In the same vein, the presence or absence of funding and infrastructure is not equal to the progress and sustainability of a university system. There is widespread confusion between funding and infrastructure on one hand and the sustainability of university education systems on the other. Funding and infrastructure are “progress and sustainable neutral”, that is, rather than in their existence, it is in their creation and application that sustainability or social progress of a system is either threatened or secured. There is nothing inherent in funding and infrastructure that dictates any specific use of them to make any system progressive and sustainable. They can be used for any purpose, but some people assume they are generated and used to further the progress and sustainability of systems. And when this does not happen, they cry foul, hence books such as *Dead Aid* by Dambisa Moyo (2009) and *Pedagogy: Tragic history 1820-1930* by Mariolina Rizzi Salvatori (1996), among others. This common fundamental flaw was avoided in the GKI design.

Further, funding and infrastructure are not the main issue because technology is replacing a huge chunk of physical infrastructure, such as libraries and books that demand huge funding, while at the same time technology itself is becoming cheaper and cheaper everyday, thereby reducing costs over time.

Endogenous approaches to higher education do not just redefine university education. They transform our old-aged perspectives of funding and infrastructure that defined the survival and boundaries of our learning and

learning spaces. Our increasing awareness of how funding and infrastructure and their related factors lead to discrimination, isolation and deterioration of innovation and creativity in the quest for power and prestige that universities are well known for, is the fundamental reason why we need to consider how we can modify our learning revolution, curtail our virulence and make our education learning systems more sustainable. The GKI is an attempt to achieve this.

It is noteworthy that the concept of an “endogenous higher education” is still an emerging field of study and practice. Endogenous approaches are being featured in discourses of sustainable systems. Yet, apart from a few universities, many higher education systems do not look at or rethink themselves as such in their overarching global and local contexts. Sustainability is mainly acknowledged as a special interest of some department or section of campus management and only understood in environmental terms. It is for this reason that Rowena Scott (2009) in an article, *sustainable curriculum, sustainable university*, argued that a sustainable university education learning system is committed to sustainability in more than campus greening programs. Additionally, information and communication technology (ICT) – mediated (social) networking education – is blurring boundaries between schools, universities, communities and the private sector, and this demands that higher education rethink itself in terms of endogenous systems by finding a way of

using opportunities created by ICTs to invigorate and keep the learning systems contextual, lively and engaging (Sterling et al., 2013).

That there is a sound body of knowledge of implications and approaches such as the possibilities and opportunities created, and spurred, by new thinking and innovation in many sectors advocating for “greater democratisation and constructive social networking, and the rebuilding of more resilient communities and restored ecosystems”, GKI design suggests that this field – endogenous learning systems – cannot be postponed. Rather, it must be accelerated. The questions, however, are: did GKI survive since its launch in 2012? Did the elements work as they were designed? If they did, how successful were they? The chapter that follows gives and discusses findings that address these and similar questions that one would imagine. The discussion also helps to show whether or not there was agreement or disagreement in the theory and practice of the GKI design.

Chapter 6: Empirical Evidence of the GKI Endogenous System

In this chapter I present and discuss findings and evidence of how the Global Knowledge Institute's endogenous design is being realized in Zambia. This is in response to the third specific research question that sought to establish the extent to which elements of the Global Knowledge Institute (GKI), as an endogenous university, are successfully in place. I have thoroughly reviewed the endogenous or sustainability elements the GKI was designed to follow in Chapter 5. In this Chapter, I explore empirical evidence of the practical establishment and implementation of such elements in Zambia. I draw the findings from in-depth face to face interviews, my participatory observations and the GKI institutional reports.

Endogenous Elements on the Ground

GKI was designed to be an endogenous university learning system. Such a system approaches knowledge as a key resource that incentivizes people's engagement in learning activities and raises the well-being of their communities and networks through building innovative solutions using multiple knowledges. The GKI materialized this knowledge approach through three elements: Network Learnovation, Community Space for Learning, and Virtual interface. These elements characterize its economic and institutional as well as learning and research strategies that define its endogenous design.

Network Learnovation

This is a two pronged network combining the words “learning and innovation” and the local and global connections of people involved. Learnovation denotes innovation in learning, learning from innovation and enhancing lifelong learning through technology enabled innovation beyond the borders of education and training systems (European Commission, 2008). GKI’s Network Learnovation as an element of its sustainability is a collaborative platform for building and delivering learning ecosystems adaptable to local varied contexts. It is a brain network, a platform for linking like-minded and diverse brains around complex issues (Ciumasu, 2010). This network is divided into two: the local and global knowledge networks, where the former is an active web of connected local people and institutions domiciled and operational in Zambia and the latter is for those domiciled and operational anywhere in the world, but outside Zambia. Network Learnovation is made up of three main knowledge hubs existing in Zambia, Korea and the US. Each of these hubs was located at a local leading university, namely, the University of Zambia (UNZA), Seoul National University (SNU) and Georgia State University (GSU).

There were a total of 35 members of Network Learnovation by August 2014, including professors, students and Zambian community members. The main activity of this network is collective curriculum building, research collaborations, cultural exchanges, and teaching. The curricula that had been developed and delivered were for the two programs GKI is running in Zambia - Master of

Philosophy in Education ⁴⁷ and Bachelor of Education in Technological Pedagogy and Culture. Nobody was paid for developing a course module or teaching. The process of curriculum development and delivery was summarized by Lynn Ilon:

Just as Google uses all its users to keep improving its search engine and adding content for ‘free’, the design of GKI curriculum development and delivery uses many people working collaboratively in virtual and physical spaces. We are devising more ways of sorting through this apparent disorder that will arise as many subject specialists come on board and our student numbers who build in their responses to the curriculum and showing how local countries or communities respond to the theories or content are growing. The curriculum units can be developed locally or globally, online or offline. Going forward, all content will come from the web so that copyright issues are sorted out instantly and all courses will be public. Right now our courses are only accessible to GKI members. Each course “module” comprises a “story” which is equivalent to a class meeting. Afterwards, students meet to discuss the materials, work together to build related exercises and then apply the materials to the community visits. The modules are collected together into groups to form a course or syllabus. Given that each module is composed of various pieces from the web (articles, web pages, videos, data, blogs, etc.), as information and knowledge changes, it is quite easy to update the module. Either a subject specialist keeps their particular module up to date or several subject specialists working together. The GKI local pedagogical guides work with students and contrast the old and updated modules for competing points of view and tracking trends in particular fields as part of the learning process.

There are four important faces to GKI’s collective curriculum development and delivery process evident in the foregoing. Firstly, knowledge flows in all

⁴⁷ It is noteworthy that the original name of this program was Master of Science in Social Learning Systems (or Integrated Social Learning Systems). It was changed in 2015 due to accreditation requirements with the Teaching Council of Zambia that needed the name to have “education” in it. This led to the rethinking of the name as well as the repackaging of the curriculum.

directions and includes local and global professors, students and communities. This is different from traditional higher education, in which information is built at “the top” (professors) and sent down “to the bottom” (students). Also, local knowledge from villages rarely interfaces with academic knowledge in the learning process (Dei, 2004). At GKI, students build knowledge collectively, rather than just individually master knowledge (from the top). Further, learners collaboratively bridge knowledge all the way from a village to global databases, which allows for links to world knowledge streams. This reinvention of pedagogy at GKI is being done through the endogenous logic of knowledge economics and “New Learning Theory”, which is being developed in response to the challenges of an emerging knowledge economy (See, for example, work by Sawyer, 2004; 2006).

Secondly, GKI uses technology to deliver courses to students on and offline. The course materials are developed by subject specialists, either locally in Zambia or globally. This material is shared on GKI’s intranet system where other specialists and novices in the same field and others can access it and recommend, adjustments. Adjustments are simply recommended and the person in charge of the course, together with the local curriculum team, assess which adjustments are relevant to the local situation. There is no end to adjustments because even on actual moments of delivery to students, the students begin by evaluating the relevance and applicability of the material to their local context. In

the process, they suggest materials to be added and removed based on the collective critical and applied analysis of students and local professionals. They work collaboratively, physically, and virtually as learners and with facilitation of local and global course specialists.

Thirdly, the important face of GKI curriculum process is “blended-delivery”, that is, there is e-delivery and face-to-face purveyance of the materials. A classroom component is added, but this classroom uses flipped learning. This means that students access course materials both on-and-off line (materials are downloaded and placed on student’s hard drives or memory sticks) before a classroom session. They learn this material on their own. Thus, classroom time is not used for knowledge inculcation, but utilized for collective knowledge building through discussions, presentations and seminars.

Fourthly, GKI has a community engagement component of programs in which students collaborate during community field-based research activities. In the case of poor countries, adding a link to local communities means that students can learn to apply what they have learned to help poor communities. This research engagement is, therefore, based on an understanding that all innovations require that abstract knowledge be applied both individually and collectively in a specific context.

Table 2: GKI Collective Adaptive Curriculum contrasted with E-Learning/M-learning

Concept	E-learning/ M-learning (Harvard/MIT; Udacity/ Coursera)	GKI Pedagogy and Modules
Source of content	Lecturers/ books/ identified expert sources	Evolving web content
Use of experts/professors	Experts as knowledge deliverers	Experts as knowledge organizers
View of knowledge	Knowledge as finite and stable	Knowledge as evolving and dynamic
Learning process	Unidirectional – from teacher to student	Networked – all sources learning from each other
Role of teachers and students	Separate roles	Trading spaces; sharing knowledge; potentially building knowledge together
Validation of knowledge	Validated by institutions	Validated by authors, crowd sourcing or institutions
Source of valid knowledge	Experts delivering facts and views	Diverse sources including experts, facts and views validated in a variety of ways
Location of knowledge building	Academia, research centers, R&D mostly in wealthier countries	All sectors, all peoples all over the world
Impetus for content development	Academic content and advancement; profit; glory	Academic, professional, personal, institutional, industrial, social, national, humanitarian, values, glory, profit, advancement and passion
Goals of recent research on learning and e-learning	More efficient learning of given materials; reduce cost of higher education; profit; spread given knowledge more broadly	Develop means of including marginal populations in new learning networks; turn diverse learning sources into resource that reduces cost of education and improves quality of their education
General approach to e-learning; m-learning	Efficient use of technology for content delivery; match technology with existing content	Build collective-adaptive software to capture dynamic learning environment of global learning population

Source: The Global Knowledge Alliance, 2013

The four important faces of the GKI curriculum development and implementation constitute what is called “collective adaptive curriculum”, a new way of thinking about higher education in a complex, knowledge-driven and globally-connected world (GKI 2013). It provides a way to drastically reduce the cost of higher education, raises its quality, and provides much improved learning experiences that are locally relevant and globally linked. Table 2 shows how GKI contrasted its pedagogical and curricular innovations to the recent e-learning programs that are appearing on the internet, particularly the Massive Open Online Courses (MOOCs).

The GKI curriculum development began with only Lynn Ilon working with three of her students at SNU. I was one of the three students. Now there are 26 people involved in total: 2 are professors from GSU whose areas of specialties are higher education leadership, pedagogy and teacher education, school community and international partnerships, special education and education research measurement and statistics, counselling and evaluation; 3 are lecturers from UNZA specializing in medical virology, clinical and community medicine and program management, culture, literacy, pedagogy and learning, as well as teacher education in literature, theatre and languages; 1 development economist of Millennium Change Account Zambia chapter; 2 professors from SNU – both are knowledge economists, one as faculty in Lifelong Education, and the other in Technology Management, Economics and Policy; and 1

specialist in international education and development working with a government's Girls' Secondary School in Lusaka, Zambia. The remaining 18 who are taking part in the curriculum include 12 students enrolled at GKI – 2 master's students (MPhil) and 10 bachelor's (BEd); 5 doctoral students – 1 from Korea University under the policy and management of science and technology program, 3 from SNU - researching into human resource development and management in developing countries, sustainability of university learning systems in contemporary Africa, and knowledge and innovation economics; and 1 from GSU in special education. This group's collaboration has resulted, as noted in Chapter 5, in the completion of curricula for two programs, a master's and bachelor's, but continue to be modified. The delivery of the curriculum began by loading it on hard drives from SNU and sending it to Lusaka. Now it is shared electronically, and is available through the institute's website.

While in traditional universities huge capital would have been required to bring together people with such expertise and pursuits, and to achieve what has been attained so far, GKI has spent almost no amount of money. The currency at work here is knowledge. Each affiliate, including students, brings in knowledge and gets back knowledge. GSU Professor 2 expressed this very well:

The GKI is a global philosophy. We have got friends in Africa, we have got friends in Asia, we have got colleagues and friends in the US and all these introduced me to further other people. I have been made to work with people that I never thought I could meet. The kind of knowledge I have acquired from all of these networks is immense and the value this brings is also immense. This is what I

mean when say I wouldn't be doing this if it wasn't rewarding. I mean we all have to get something back out of it. Now what do we get, certainly not money at this point. We got to travel to Zambia, we met a lot of new people, students, those teachers. Somebody opened us up to it, years ago for the first time. So it is just sort of a mutual pay forward kind of a thing for the kids and the bottom line. For me it is about what we can do to improve knowledge, local knowledge, because knowledge is power. It can be any kind of knowledge, not just academic knowledge. Not everybody needs to go to the university, but that the people who want to go and are compelled to go should have access and the opportunity to go and that doesn't mean that other types of knowledge are any less valued or valuable. I only think when people get educated they are more functional.

The GKI Staff 4 shared his reason for joining and participating in GKI's

Network Learnovation:

At first it was simply the excitement of wanting to do something in Africa. You know the common idea of "helping Africa". But now I know I was wrong. The magic is in the knowledge and experiences you get through interacting and being with people of all kinds. I believe so much that I need to learn because it is not just GKI people I have interacted with. In Zambia, I met all sorts of people. They taught me a lot. My view of Africa and any other developing part of the world has changed much as views about myself and my country on how to work with African people have transformed. All of this is happening not because of money, but the knowledge, different worldviews I have been opened to through GKI.

In addition, SNU Professor 2 noted that:

My contribution and benefit from the GKI is chiefly conceptual, that is, to see how we can make these GKI concepts work and share our story with the world. This story sharing comes with benefits for a professor like me. I believe so much with everything that we do. It is about trying it and seeing how it works. And with time we should always be able to manipulate what we are working on to get it better because it is not possible to grow without finding ways at each point of making the concepts work. As time is changing, we too are changing. Our changing must be growth. So we need to ask ourselves, how do we respond to the changes in time in order to grow? What

should we deal with? What angle should we take? I think that is the major problem and weakness with our traditional universities: we sit down and say “we are there now, this is the way it should be running”. GKI gives a different platform of reflexivity all the time. So that is why I feel my contribution to and benefit from GKI is chiefly in lines of knowledge and evolution in practice to avoid slipshodness.

The growth that SNU Professor 2 referred to includes the deepening and widening of Network Learnovation. In the context of Zambia there was already an identified challenge to this growth. The apparent challenge was the unfavorable economic and social conditions locally, in which almost nothing can be done without cash. Aware of this hurdle, and despite it, I was moved at how the network was still growing, though slowly, in Lusaka, Chongwe and Chibombo, the main areas of GKI operations. I had written in my reflexive journal that:

We already have a growing network of local communities, mainly involving villages, schools and experts from universities and nongovernmental organizations which work with our enrolled students and the entire GKI global network. We already know how to partner with fellow universities and organizations. But for the village communities and their schools, we are not yet clear on how we could effectively and efficiently engage each other away from the traditional notions of the researcher and the researched, giver and receiver (the use of money). The good news is that we are making tremendous headways on this front, miraculously though.

By “tremendous headways,” I was looking at the GKI success launching a research application that teachers and pupils in secondary schools – Chibombo Secondary School and Chongwe Secondary School – would over time use on tablets to record and collect their stories in communities and schools. The

teachers and pupils were excited by with this, and Chongwe 1 had intimated to me something valuable:

I allowed one of my pupils to go with the tablet home. His report the next day suggested that our communities are likely going to voluntarily research into and record their issues without asking for payments. They will say actual issues without pretense. The boy said his parents, with a modest education, may be just up to grade seven, were asking if that tablet could help them talk to government about their problems or share their plans to find support.

The point Chongwe 1 was making here is that for parents with “modest education” to immediately see the tablet as a medium through which their voices could be heard and resources could be mobilized for their own desired plans of action evidenced potential growth of the network into local villages and compounds in Zambia. The issue of cash may not be such an impediment, if GKI manages to find a way of presenting its system in a way that allows communities to innovate and utilize it as they deem suitable, given their conditions. If such participation and belonging is achieved, so much valuable information could be collected, as per GKI plan. GKI plans to have local data collected in real time and uploaded to the GKI global database for access and analysis by both the local and global knowledge networks. The analyses would be used to build collective problem solving strategies, improve school curriculum, give communities a voice to share their stories and track down community development trends.

The participation of teachers, pupils and communities in this whole process is designed to be knowledge based. For the teachers enrolled at GKI, this has already been achieved. They do not pay tuition. Also, the pupils that participate are not paid cash as data collectors. They are students being taught by these teachers in their respective secondary schools. The school authorities allow their teachers and learners to do this because they can see their teachers receiving further world class professional development without either seeking study leave or negatively affecting the school calendars. Traditionally, teachers in Zambia have to go on study leave or long distance learning to upgrade their professional qualifications. In both cases, they would have to abandon their work stations for a certain period of time. This causes understaffing in schools, and ruptures the ties teachers have with the school and community. The GKI teacher program, however, does not require teachers to leave their job or community. They work and study within their community and function as cultural incubators. What they learn is applied and integrated with their teaching and everyday interactions with the community. Chongwe 5 noted:

I have just enrolled at the GKI, and already, I am excited because I am researching, gathering and documenting a lot of community information. At the same time, where a problem is identified, such as water problem, I will work with the community to solve that problem. This will help me gain more experience, understand closely what is taking place in the society. I am no longer just seeing things. I am getting to investigate them deeply, engage with other people, and know people more than the way I saw them before. Certainly, I will come to understand them and their issues, our issues, better, then collaborate in looking for ways of securing and applying solutions

and help were necessary. This process is of value to me because as a teacher, I won't be able to move away from the school system. I'll continue to be part of my work and the community. It will strengthen my teaching. I will teach in differentiated ways which must motivate pupils so that they like my subjects very much and appreciate their community as well as get actively involved.

It is hoped that the communities will be part of Network Learnovation and collaborate with the schools because they can see the value this process has for the betterment of their children and neighborhoods, for example, in terms of IT exposure. Above all, their stories will no longer be recorded by an outsider, as is the case in traditional surveys, but by communities themselves as their own lived experiences, and at their own time and convenience.

It is worth emphasizing that it is not just curriculum development and implementation that Network Learnovation is doing. There are huge efforts towards having a robust collaborative research and cultural process. These efforts have already started receiving international attention, as evidenced by a number of research grants received by GKI. In 2011, the GKI Network Learnovation in collaboration with a local Korean NGO, Reshaping Development Institute (ReDI), won its first 40,000USD research grant from Korea National Research Foundation (GKA, 2014). The project, called *Educational program and research competency development project for innovative Learning Center in Zambia* (2011-2012), developed an e-learning curriculum for using blended methodology for GKI academic programs, and helped to purchase supporting educational and ICT equipment. The grant also

supported two Korean master's students to work overseas at GKI in Zambia in management of the research grant, and complementing local efforts where necessary (GKA, 2014). Another research grant worth about 177,000 USD was received by GKI in 2012 from the Korea National Research Foundation. This project, *a knowledge-economic design for collaborative North-South research: potential for integrating IT in rural communities*, was renewed annually and scheduled to wind up in 2015. The project aimed at demonstrating that an innovative global research network design can make ground-breaking research possible in poor countries, Zambia in particular. The project also aimed at broadening existing research ties between the GKI, UNZA, SNU and GSU to bring it to a level where it can be economically self-sustaining by the end of a two year period. Further, the project was designed to strengthen research competency in the local context by understanding the environment of rural communities, with respect to their use of electronic communications and electronic devices (GKA, 2014).

A GKA project, *Applying Knowledge Economic Principles in Curriculum Building for Poor Countries*, worth approximately 40, 000USD was awarded by SNU in 2014. The project aimed at building an IT system to manage curricula from both global and local knowledge sources. This system allowed for inputting prototype curricula and ensuring that it works for both global and local faculty. Basically, this was an upgrade of the GKI intranet system. The initial system,

built in 2012, had been presenting challenges to some professors and students to accessing and inputting curricular materials. An additional 7,600USD was awarded by SNU to GKI to hold a conference at SNU's College of Education in April 2014. This is one of the conferences I used as my "searching conferences" to collect data.⁴⁸

Network Learnovation has certain challenges relating to the curriculum and research activities. The largest challenge is the insufficient number, both at the local and global levels, of subject specialists to develop and implement the curriculum. One would argue that perhaps this problem could be solved by tapping into existing Massive Open Online Courses (MOOCs). GKI course modules, as already shown above (see Table 1), are not the same as MOOCs. For example, even if one would get the already made MOOCs, the GKI modules require that local expertise, and in this case Zambia, work on localizing such courses. The localization process is not optional but mandatory, and it does not only mean making the courses relevant to Zambia. The feedback from the implementation process in Zambia is integrated into the curriculum and for experience and knowledge sharing. GSU Professor 1 stated:

Competition is getting stiffer in online programs. We are finding that traditional universities are losing a lot of their students who want to stay in their pyjamas as they complete their courses. And there are lots of programs out there where they can do that. However, quality of those programs is the question. Many of them are "fly by the night" programs. And some of them are quality programs where

⁴⁸ See Chapter 2 for details on "searching conferences".

students are actually getting a good education. University of Arizona, for example, they offer all their courses online, they use professors from all over the world. But what makes the GKI ahead of the game is that we are focused on a designated population, teachers in rural Zambia for example. It is not about that alone but the technological, economic and social environment we are making this possible. When you think about online programs like the phoenix program, Phoenix University, and several others that are popular in the States or around the world, you do have the issue of localization. They have no local experts both physically and virtually questioning the curriculum with the students. If they have these, their experiences and new insights are never considered and shared at the global level. Largely, leading professors just develop and make course available online. Student responses, community reactions and dialogue with non-local experts is not there at all.

The process of curriculum development requires resources, particularly in terms of time and brainpower. But there are still only a few local and global experts working with GKI. Only 9 participants have to ensure that all courses have been attended to. On the ground in Zambia, there are only 4 readily available for curriculum building and delivery. GKI Staff 3 revealed that:

This weekend, during the seminars, one of the students asked who would be the other professors locally. That question hit my mind because I realized we have more outside experts. A lot of people at expert level for the curriculum are not in Zambia. So, immediately, I started thinking how do we identify a pool of Zambian instructors and professors conversant with the Zambian story who are willing to be a part of this. I think this is a challenge to reckon with now.

The reason for having more non-local experts was explained by UNZA Professor 1: “If I decided to stop all these community services, I would only be doing what majority people do, no one does things for free, there’s no free lunch,

there is no free tea, we are here in this café because we are paying for something.

No sweat no sweet.”

The economic situation in Zambia, which has found many people having to have more than one job to sustain themselves, makes it difficult for more subject specialists to volunteer in institutions like GKI that do not offer financial incentives (Kantini, 2013). The problem of having few professionals for curriculum development and implementation at the local level in Zambia is also true at the global level as the GSU Professor 2 indicated:

I was wondering as I was looking through the list of courses and particularly the number of courses that have been assigned to me, and oh my God, am hesitant to take on that level of work with my current position. This is going to be a challenge. So what I am trying to do is to see how I can try and bring additional folks from my side who have expertise in the subjects that I signed up for, who would be willing to devote their time until the GKI is up and rolling. We need more professors and their contacts around each course and then more and more people who simply have interest in the same. As we go through the process of bringing more people on board, we need to plan that strategy I think, we need to think about how we recruit and bring in additional faculty members. Will we be pulling from the University of Zambia a pool of instructors? Or are there some people who might be working with other online programs that we can seek out? Are we at Georgia State going to chat with faculty who are involved in international work who can accept to get an invitation when we need them? Do we pick and choose from among those we have invited or we leave it open to everyone?

The challenge of having too few specialized subject specialists was aggravated by the lack of GKI full-time faculty and staff. Everybody involved with GKI is a volunteers. This is unsustainable. The UNZA Professor 1 meticulously highlighted this fact.

The failure to have staff on a full time basis, and the lack of clear source of funding poses a challenge to GKI's sustainability. Let me put it this way, the staff that go for GKI lessons right now are working somewhere like me for example. I have a job somewhere that feeds me. In the event that I have a class with GKI and my bosses call me, I cancel the GKI class and that is not good for the institution. You know what volunteer work entails: it is when you have time, at your convenience. But we can't subject the institution like GKI to the mood of individuals and their employers. We need workers that are dedicated to the institutional goals by obligation as well, people we pay to do the job. Running the institution the way we are doing is never the best way wherever you go in the world. Unless the volunteers that are coming to help the institution have been sent for specific purposes by other institutions or other bodies were they are employed, that is a different case. But look at the GKI! I am spending my money, my personal resources, GKI is not spending on me, it's not even paying for my transportation, it's not even paying for my talk time with the students, it's not even paying for anything from the time I started at least. You can attest that I have not used any GKI money but I have spent my resources. See, to come here I booked a taxi because my car is being used by GKI in the field. And am going to attend to GKI classes using my own money and there's nothing really I can do right now or else everything fails. But this is not sustainable. GKI needs its own institutional resources. Right now we are engaging schools, we have students and teachers starting some programs. The growth is happening fast but we have no full time staffing in place to run all of this.

In the same vein, GKI Staff 1 lamented that:

My personal challenge is that I work for another organization, the Challenge Account, and I am needed at work from 8am to 5pm. I can only dedicate my hours to GKI after I've knocked off. Usually I am exhausted. But I love the work with GKI. Time is still a challenge however. I feel I need more time to dedicate to GKI so that I would do a lot in terms of just thinking through how we can better the institution, how we can get more students, more people and also apply myself to actualizing the strategic plan in place.

UNZA Professor 2 pointed out that:

You know I would like to just be realistic. My chief engagement being with UNZA, my contribution to GKI is mostly hampered by this. So much of what I would love to put into GKI I do not. You know how UNZA is very highly understaffed and rigid. So my response usually is to reduce my contribution to GKI but this doesn't sit well on my conscious because I see this potential that GKI has even more than my own university. I feel time is something that actually everyone would complain about. Clearly we can't survive long without full time people. But only a few should be full time then the rest, majority of us, can remain part time because we do not need everyone to be full time otherwise it defies the whole network logic which has proved to work so far.

Also, GSU Professor 1 intimated the same challenge:

You can't imagine how time is my challenge. I probably devote about 10 % of my time to GKI and that's probably because it is in the startup phase. Even then I have already some graduate assistants to handle and manage my GKI space given how fast it is growing. I am happy to have more graduate students actually working with me on this one because am developing capacity in them. But GKI needs full time staff through which we can coordinate with our graduate assistants.

The last challenge facing GKI Network Learnovation is evident in the work with the schools where GKI students are teachers. Given that the teachers continue to work in the schools, and as they upgrade their educational status with the GKI program, their teaching performance improves, and they get higher performance reviews, which in turn leads to promotions. Usually, these promotions mean getting transferred to another school. Currently, GKI is only present in two schools and only works with local communities around these two schools. A transfer of the teacher means going out of the coverage area of GKI

and having to withdraw from GKI studies. Two teachers have already been transferred: one of the teacher's moves was due to a promotional transfer, and the other's move was due to marital arrangements. Given that there are only five teachers in each school, the loss of just one teacher has a negative bearing on the remaining GKI students and the entire program. Students work in groups and pairs, with each individual effort having a significant effect on the output of the whole group or pair. Further, each teacher has classes incorporated in the GKI Empower research system. When the teacher leaves, it means those learners under that teacher also fall out of the system because the remaining teachers cannot be given an extra load. Furthermore, enrolling a new teacher becomes impractical, given the amount of time needed to bring such a new entrant up to speed. Perhaps the old-aged adage that "life is like a web: you shake one string, the whole thing shakes" is well immortalized by this challenge.⁴⁹

Community Space for Learning

In Chapter 5, it was established that GKI put in place a learning center at UNZA's Ridgeway Campus. This center was secured without paying rentals, utilities or security bills, but in the form of an exchange of knowledge with the School of Medicine, UNZA. This arrangement between UNZA and GKI was recognized by the Government Republic of Zambia (GRZ) Ministry of Education which in part wrote to GKI:

⁴⁹ I have made a recommendation GKI may wish to consider to address this problem in the recommendation section of Chapter 9.

My Ministry would like to acknowledge your intention to build a new design [university design] that links masters students...with local communities and local NGOs, which will culminate into a global network of advanced graduate students and experts. These will work to build robust curriculum [sic] and research designs. In view of the above I am glad to grant you official recognition and further ask you to work closely with school of medicine. The Ministry will keep close collaborations with the organization (J. S. Mulungushi, personal communication, August, 6, 2011).

The GKI center at UNZA was established primarily as a “control cell” (administrative and management purposes) of extended spaces (multiple cells) for learning spread throughout the communities where GKI members and students may be found. The idea of customized learning and learning everywhere and anytime popularized by ubiquitous technologies is pushing the education frontiers to rethink our brick and mortar classroom arrangement. GKI, responded to this “pushing” with flipped learning, which allows students to access and carry full curriculum content on their laptops. They thus interact with the content from anywhere. GKI, however, remains interested in how students use the different spaces, wherever they may be, and how such spaces impact on their learning. Such spaces, much as they may be private, are considered to be connected with the main learning center. What happens at the learning center is a product of questions, insights and solutions, emerging out of the activities happening in the community spaces used for learning. Accordingly, GKI asks learners to report their lived experiences as learners in community spaces. Master 1 student sharing his experience noted that:

I was interacting with the module for indigenous knowledge while waiting for a bus at the terminus. As I was asking myself questions why we, as Africans, have so much departed from our knowledges, suddenly, a woman came selling some herbal remedies. She explained each concoction with such medical precision and unmatched marketing skill that left me astonished and wanting to find a way of professionalizing this woman's trade in local herbal medicines and a way to have such a person come to our center to talk about these traditional remedies. This astonishment and desire to act had never happened to me before. I think it happened as a result of me having extended my learning space into my community: reading about our indigenous knowledge while in an indigenous context and a real indigenous example coming by in an indigenous way.

The community space for learning was utilized even more for the undergraduate program. Basically, all learning and discussions happen away from the GKI learning center in Lusaka. The teachers have their curriculum on their laptops, and they meet for discussions at their schools or anywhere else within their community where they please. Whenever GKI learning facilitators would like to meet with these students, they meet them in such spaces – “the teacher follows the student.” Chibombo 1 expressed that:

It feels good to be followed by your professors. You feel important yet humbled at the same time. I think the right word is that you get humanized. What is humanized even more is not me but the learning process which in turn humanizes me of course. You see I have been a teacher for years. But schools have never been something I considered as my space for learning to upgrade my qualifications. I still felt that I needed to go somewhere else, far away. But now, the school, my home and the community have all become part of my education. They are educating me just as I am educating them. Although this sound straight forward. It is revolutionary. Having been a teacher for years I can say that. So, right now I have been thinking how to change the concept of “homework” for my students. I want them to stop thinking there is “homework” and “schoolwork”. I would love them to be free from this disconnection. I want them to

see home as school and vice versa. I want the same excitement they have when it is time to knock off be the same excitement they feel when it is time to come to class, go for games and so on. I want to see them carry their writing pads and so on. All this is running through my head after the GKI experience with my own learning.

The GKI approach to learning space is not just exciting, it has challenges in the context of Zambia. To begin with, being housed by UNZA meant GKI was riding on the prestige and reputation of the institution locally. This advantage was only geographical but was of no advantage for two things that matter to the local population: the institution issuing the degree; and the physical infrastructure. The GKI degree certificates are not accredited by an established university such as UNZA. The collaboration with, and participation of lecturers, from UNZA, GSU and SNU, give the impression that perhaps GKI degrees are affiliated with these universities. In reality they are not. This has the potential to make local people think that perhaps both the location of the GKI at UNZA and participation of professionals from SNU, GSU and UNZA itself are mere marketing strategies. Locals are skeptical about start-up universities that are not affiliated with established universities.

The second factor involves the assumption by Zambians that a university should have campus with buildings filled with books, desks and teachers standing in front of students. This assumption is not unique to Zambia, but is representative of the entire industrial age. A university is expected to have many and huge buildings, desks, “big books” and “big teachers” – masters, doctors of

philosophy and full professors. The understanding is that one can only learn in these kinds of settings, and from these people. While GKI has teachers with titles, it does not have a campus of its own. The professors are only volunteers who technically belong somewhere else. Even more, GKI only occupies a portion of a single building at UNZA. In short, GKI is “invisible” physically.

The current arrangement of GKI does not fit into the local Zambian schema of a university. This has the potential to make local populations lose confidence in GKI. The loss of confidence has a historical bearing. This challenge should be understood within the Zambian context, explored in Chapter 4. There are mushrooming universities in Zambia labelled as “briefcase universities”. Such universities are without a campus and are not affiliated or accredited with any major university because they cannot meet the accreditation requirements demanded by the already established universities. On July 6, 2013, the Parliament of Zambia heard from a Committee on Education that “it is no longer unusual to find a university operating in the backyard of some residential house or renting two rooms in some dilapidated building in our country” (Lusaka Times, 2013).

GKI faces the threat of being associated with these briefcase universities because it has, in a way, their two key features: no campus and not being accredited with any of the already established universities anywhere in the world. Although the lack of accreditation with other universities is a deliberate decision

by GKI, and not failure to meet the accreditation standards, local people have no time to ask why. Knowing it is a new university without any tangible campus, they only ask one question: “so who grants the degree?” Thus, it was a shared concern among the GKI local members that the institution needed to quickly establish its own premises and build the required reputation for its degrees. The GKI Staff 1 stated:

In Zambia, to be known, you need to have a space, a physical place. The Ridgeway campus of the UNZA where we are at could not allow us to put up our big posters because their policy did not really allow us to stand-alone and say this is GKI. The space is actually being renovated and so we had to move to another place. Again this other place we moved to belongs to another company. While we can erect big posters we cannot access the premises 24/7. Clearly, while we are receiving support like this for our concept from local institutions and companies, it is clear that we need a stand-alone building, a location where people will know this is GKI. This is how it works in Zambia. So for starters we need a big financial injection, it may not be continuous, but a one off or sustained for two years which we can first of all build our own place, and then be able to also pay key full time staff, 4 or 5 individuals are enough considering our concept. This will attract sufficient people and organizations to continue funding different aspects of our costs. I can assure you that there will be no one to stop this; it will be a well-oiled machine. It will start rolling on its own. This must be a priority now: get good big funding for maybe two years and establish a building, a stand-alone building and a sizeable staff.

Further, the need for GKI to have its own premises was stated by UNZA

Professor 1 who said:

Our learning is flipped. Learners learn at home, that is, wherever they choose. But home environments are quite different, some homes might be conducive for learning some homes may not. This has added to the challenges that we have. So we need an operational learning center accessible at all times. It is one of the key things. So,

while students don't pay for accommodation, they need where they can come and just sit perhaps the whole day, every day or just selected days in a week. The center should provide them with fast internet, conducive studying environment day and night.

Furthermore, the GKI Staff 2 argued that

To re-echo my thinking, we need a place of our own, an identity, it's very important here in Zambia. After that we will begin to attract more students and organizations. They will feel we are here to stay and we are for real. We need to grow the institution. I believe in its model particularly drawing teaching expertise from all over the world, the research system which has communities at the core, just how everything works. We should produce a proof of concept and community solidarity and this includes having our own physical space where people can catch us.

The other challenge to the GKI Community Space for Learning element is the fact that the building GKI is occupying is subsumed within UNZA, which operates on a completely different educational premise from GKI. Also, the understanding between GKI and UNZA, much as it is institutional, was a high level decision with a particular unit within the system – the School of Medicine Administration. However, the building belongs to the whole university, is run by a unit of the School of Medicine, specifically, the Department of Nursing Sciences, and is used by UNZA students, professors and general staff, who do not understand how and why a particular portion of their institutional building should be occupied by another institution. In terms of knowledge exchanges, GKI curriculum has not yet included medical courses. The materials available and accessible at the GKI's virtual library are accordingly without direct relevance to medical students and the staff. For technology, the observable local

expectations were that GKI was going to turn the space they occupy into a computer lab of some kind, fill it with plenty of computers, and pull in broadband internet connectivity with fixed lines that the entire populace of the Medical School would freely access. But GKI only has laptops which students and local staff carried around wherever they went. Also, GKI staff and students used mobile internet because they spent much of their time in their own individual spaces. The failure to meet this local expectation has one consequence. With time, there may not be as much cooperation from UNZA Medical School members, who cannot see the direct benefit of giving up their space to GKI.

Virtual Interface

Unlike Network Learnovation and community space for learning, the virtual space element required capital from the outset. The virtual space is the technological interface of GKI, which constitutes institutional websites, social media pages, and gadgets, such as laptops and tablets. The virtual space links GKI members with each other across geographical boundaries. It also links them with services and resources that, traditionally, they would not have, due to geographical, institutional, cultural and ideological boundaries. This linkage is what interface means, and virtual implies that it is computer-generated and fundamental to the connections of the GKI network. For example, without the laptops, students would not manage to carry and have the entire curriculum with them all the time and everywhere they choose. Even if it were to be printed, it

would be ridiculous to carry hundreds of articles and books in your back pack, that is, if they would fit. Otherwise, you would actually need huge suitcases to do such a ridiculous thing.

It is through the virtual interface that GKI was also running a newly developed research system for communities. Research in poor countries has largely followed a survey system which follows a procedure of designing and analyzing data in a central research location, and then sending recommendations and policies back to the local area, from which the data were collected. The exogenous design of the what, when, where, why, and how to ask assumes a knowledge flow from wealthier countries to poorer countries, and that such knowledge is apt and will be, in fact must be, integrated into the local communities. The result has been devastating, as the curled data is usually unrealistic, which leads to wrong conclusions. Also, even if the data were real, the external analyst, due to a lack of understanding of the social, political and economic context, usually makes misconstrued analyses. Even more, where the data and analyses are to the point, the packaging of the analyses is not user friendly, in terms of technical and language arrangements. Where all these impediments are overcome, the issue of ownership comes in, as the external analysis is received more or less as what “they”, external people want and not what “we”, the communities want. Besides, the external analysis comes with a goal in mind that may not be the goal of the community concerned. Let us give

two examples that exemplify how the separation in knowledge between the local and global communities lead to the unsustainability of communities.

The first example relates to HIV/AIDS. There remains a failure to understand why wearing condoms in a number of African countries is a challenge. Many factors have been cited, including religious, cultural and illiteracy levels. In my opinion, only one factor accounts for all of this: the moral goal of African communities. The moral compass and goal that guides many African communities I know of is trust, and that sex, be it on cultural, religious, political and economic grounds, should be accessed only in marriage and with the person or persons you married. This tenet is “infallible”. The social context expects everyone to work towards this goal and people in or outside marriage to trust each other that both or all of them are observing this. Condoms disrupt and shift this moral goal. Wearing condoms, even if it is in the name of HIV/AIDS, suggests that one or all of the parties are no longer committed to this social convention. A condom seems to carry with it a statement that infidelity, fornication and adultery, is no longer “sin”, as long as you wear the condom. Therefore, no matter how many campaigns, surveys and talks are held about HIV/AIDS, without transforming this social mindset, condoms will remain underutilized and more lives will be lost because of the epidemic in question.

Another example is what happened in 2011. In the region covering Ethiopia and Somalia called the Horn of Africa, there was widespread famine

that claimed a lot of lives. The general view was that people in this region were unable to cultivate enough to feed themselves, due to a regional drought. Local information reveals that drought was not an issue, and enough food could have been made available to these people. The problem that aggravated the famine was a combination of climate change, geo-political tensions, institutional failure and social conflicts (Ferris & Petz, 2012; Stastna, 2011). Let us briefly examine how each factor came in. Changes in climate caught these populations by surprise and, therefore, they were not prepared for a rainy season that brought very little rain. Had they known, as the weather focus centers did, preparations would have meant growing drought resistant crops in that year. When the crop failure happened, farmers and responsible agencies shared the burden of this crisis. However, due to the activities of a terrorist group, the al-Shabaab, which is known to operate within the region, external aid intervention was withheld. Governments and aid agencies feared for the destruction of their own lives and the kind of publicity that the terrorist attacks would create. So, governments and relief agencies decided to respond mutedly to this issue, afraid that any thorough discussion would have revealed incompetency in helping vulnerable groups. Even more, local populations were kept hostage on their land by such terrorist movements. Basically, there were no movements of people to and from this region except those who were al-Shabaab affiliates (Manson, 2011).

Attempting to solve such a crisis from outside, from some fancy headquarters and posh palace of governments and relief agencies, certainly makes this issue appear so complex that a military intervention becomes the only attractive option. The GKI research system suggests that there is an alternative. People on the ground would have solved this issue because they know their situation better. The challenge is how to get to them and them getting to the outside world in a systematic way that ensures a dynamic and reliable flow of information that is not threatening but empowering to all parties involved. The research system of GKI enabled through its virtual interface aims to achieve this through an initiative called GKI empower.

GKI empower is a virtual interface that ensures that communities are engaged in the entire processes of research, analyses and the building of collective strategies to tackle their own problems. GKI designed an App called GKI empower. This app is installed as one of the many other apps on a tablet that teachers use for their learning. So, GKI Empower App does not colonize the tablet or try to make the tablet different from any other tablet. With this app, teachers and their learners collect data in schools and communities. This collected data is linked to the GKI's global database. How it gets to the global database is through a local server at each secondary school affiliated with GKI – Chibombo and Chongwe Secondary Schools. The GKI Empower App is linked to the local server using Local Area Network (LAN). The local server is

connected to the global database through the internet. Once the data is on the global database, anyone anywhere within the GKI system can access it, interact with it, generate analyses and make recommendations. This is done individually and collaboratively. The goal, however, is to ensure that local people, the Zambian people in this case, are involved and have the ownership of the data, outcome and action plans that follow.

There are identifiable challenges to GKI virtual interface which then affects all the activities it is meant to facilitate or enable. In Zambia, Internet connectivity is still limited, and the costs of buying and maintaining technological gadgets are still high. This causes a number of problems. For example, if GKI members in Korea are sharing a file with Zambia that is saved in a most recent version, it cannot be opened by Zambian students because programs or apps on their laptops require updating first. With slow connectivity, this becomes a nightmare. GKI Staff 1 indicated that:

There is a possibility that GKI would provide this quality education at mass scale but that time is not now because there are still few technology issues which need to be addressed in the case of Zambia as a country. Right now the country is undergoing a fiber optic connectivity project. The Government wants to connect the entire country to fulfil digital migration agenda. If that be a reality, in the next few months, then we will have leap frogged. Connectivity will have been done away with. But can we have access to cheap laptops or desktops? If that be possible, we would have solved another issue. The next item becomes electricity because the whole country is not yet on the grid. If that is solved, then we will say good. But now the maintenance of these technologies: does the country or GKI have the technical capacity? Next will be social migration, digitization of the population. Then, are the technologies culturally sound? These are

issues that can't be ignored in terms of GKI's long term sustainability.

The other challenge to the operations of the virtual space is how to organize asynchronous and synchronous meetings of affiliates across the three time zones. This is essential to the functioning of GKI's Network Learnovation, which involves short and long-term activity distribution processes being carried out, and where decisions are made, by transdisciplinary teams. These decision making processes involve both face-to-face and virtual environments. The online environments included Google Groups, Google Docs and other Google applications. These applications need to "support the articulation of work by enabling the actors of the learning and innovation process to manage the operative and temporal synchronization required by the interdependencies of the tasks" (Quesada & Darse, 2008, p. 2). Unfortunately, a number of GKI members expressed dissatisfaction with the web-based platform that was in place. The main issue was that many failed to get on the system or the system was refusing to synchronize with their own institutional and/or personally preferred systems. As a result, face-to-face meetings continued to be the main mode of discussion, followed by sharing of reports through emails, Dropbox and Google Drive. This slowed down the process, and did not reflect the actual collaboration the GKI desire, namely, a situation in which all actors negotiate, argue, debate, and compare their viewpoints about technical documents, research and curriculum in real time.

Summary

The design of GKI had three visible aspects – Network Learnovation, Community Space for Learning and Virtual Interface – operational in Zambia which manifested the endogenous elements of using knowledge as currency and multiple knowledges. Network Learnovation was divided into two: the global and local knowledge networks extending to Korea, Zambia and the US. In each respective country, the networks had their hubs at a university: SNU, UNZA and GSU. A combination of the form and functions of the three elements enabled GKI to function as an endogenous university system.

GKI has successes and face challenges in each of the three visible aspects on the ground: Network Learnovation, Community Space for Learning and Virtual Interface. GKI successfully secured space at UNZA without paying cash to establish its learning center. The space, however, does not accord GKI physical visibility to general local populations, or provide operational flexibility, since it is an independent institution operating within a university. There are plans to construct an independent GKI learning center, although there is no timeline for this at the moment.

Network Learnovation began in 2011 with Lynn Ilon and myself. Within three years it has grown to 36 people with eight different nationalities (Zambian, American, Ethiopian, Korean, German, Indian, Canadian, and Chinese) living on 3 different continents (Africa, Asia and North America). The network had made progressive strides in three areas: curriculum development and delivery, and

research collaboration. Although the network is growing, the work of Network Learnovation is growing even faster. Thus, those available are being overloaded. This is compounded by the fact that everyone is a volunteer with a full time job elsewhere. Some of the enrolled students who are public teachers, despite having solved their problem of leaving their school and community for studies, were promoted or transferred from their school, which entailed their withdrawal from the program. This is caused by the fact that GKI is restricted to only two schools at the moment because of capacity: technologically and human resources. Connectivity in Zambia is still very poor, thus, online communication is not yet effective.

The next chapter furthers the presentation and discussion of findings, by focusing on the shared lived experiences and perspectives of the participants to show whether or not the GKI endogenous university education system has any future in Zambia.

Chapter 7: Efficaciousness of the GKI Endogenous System

In Chapter 6, I explored empirical evidence of how the endogenous framework of the Global Knowledge Institute (GKI) (discussed in Chapter 5), along with the successes and challenges of the system, was realized on the ground. In this chapter, I present and discuss the lived experiences of the participants and myself to show how the GKI was efficacious as an endogenous university education system. This means that I also establish whether or not the participants qualify GKI as a higher education institution that is an endogenous university. I established how each participant qualified GKI as an endogenous system by first establishing whether they considered GKI to be unique, and then what reasons they gave to explain that uniqueness. I have drawn the findings from the in-depth face to face interviews, and participatory observations from my reflexive journals. In presenting the empirical evidence, I have employed long narrative quotes from the interviews to ensure that the voice and reflections of the participants are not obscured or construed out of context. I merge the perceptions of the participants and my own through discursive commentary and analytic statements.

The GKI as a University Learning System

GKI is viewed and accepted as a university education system in Zambia. This is evidenced by the official recognition from the Government Republic of Zambia (GRZ) Ministry of Education and the partnership with the Medical

School of the University of Zambia (UNZA), shown in Chapters 5 and 6. Also, of the 12 students studying with GKI, 9 already have a Bachelor's degree from leading universities in Zambia – UNZA and the Copperbelt University (CBU). These students expressed satisfaction with GKI as a university. Chongwe 1, who has his first degree from UNZA, explained that:

The GKI way of learning is very good and personally I believe it can match the standards of the learning systems of different universities. The way everything has been organized, the content of courses for example, it's properly organized and you can see that the content is not half-baked. It is rich and you can just see the organization and the way students work both in isolation and collaboration with the professors and communities locally here and from elsewhere. The people, the personnel that GKI has are qualified people, globally exposed yet humble and very interactive. For instance, in all the sessions that we have had so far, they were able to provide us with a platform to learn and discover things on our own. They were friendly and professional at the same time and also there was that personal touch to whatever they were doing. I really loved that about their way of delivering the information: it was not just about what they had to give but what the students had to bring on the table and the new knowledge and experiences that result from that.

His view is shared by the experts in Zambia. For instance, UNZA

Professor 1 noted that:

My view of university learning system has definitely evolved with GKI. I come from a traditional education orientation. I never really thought much about online programs as being quality university programs until I became involved with GKI. I always knew that there was something missing with online programs. My involvement with GKI has helped me identify that something and how I can be a part of its change. Typically, GKI would not have been an institution that would have gotten my interest. A number of things came together: the fact that it was contextualized about Zambia, and the fact that it was to serve students who didn't have access to quality higher education, and the fact that it was concerned with research and

community transformation and the fact that it was at the beginning stage. It is an opportunity for me to do something new.

It is noteworthy that GKI is not just viewed and accepted as a university education system. GKI is considered exceptional in comparison to other universities in 7 areas. The 7 exceptional areas are: integrated school-community research, learning without borders, pedagogical classroom approach, Ubuntu-inspired learning, transdisciplinary expert collaboration and representation, higher education for all, and unbundled roles.

Integrated School-Community Research

GKI academic programs are considered to be “applied” because students work with, and in, their communities during their course of study. What makes this exceptional is not working with communities *per se*, but how students and GKI were working with the communities. The linkage of GKI with the communities is an attempt to create a system in which communities are no longer the object of research, but are part of the research to develop capacity to collectively build innovative solutions to solve local problems. Further, the engagement fosters linkages with the government, industry and corporate service providers in a mutually beneficial and progressive way. UNZA Professor 2 argued that

Each program has to be a response to a particular need in society and there should be clear linkage between society and the institution. I think this is a similarity between GKI and us as UNZA [The University of Zambia]. For example here at UNZA, students go on industrial attachments but now, already at that point, we see the

difference between UNZA and GKI. The link between the society or the community and UNZA cannot be compared to that with GKI because at GKI we start student-community engagement at the very beginning of the program till the end. But at UNZA that comes in much later. UNZA students are sent as an appendage to the community and the community is treated as a lab rat by the students. This kind of linkage between societies or the community and the institution is very weak, it is something that can easily break because it is like a “by the way thing” and students do it in order to graduate. It’s not for students to actually understand the community environment they are working in or what they're working on. But at GKI, we believe that they have to do more than an attachment. They are citizens of the community and should act and live as a responsible citizen is expected by cooperating and working with fellow citizens to sort out community problems.

GKI considers the community to be an integral part of the student and institutional learning environment. For many traditional universities, not just the UNZA, the community remains a testing bed for academic experiments, and is therefore abandoned when the experiment is completed.

The old notion of learning is that people come from various places to a particular campus that is bounded geographically, architecturally, and in terms of disciplinary boundaries. This movement from home to school is a procession that takes people away from their natural, social and cultural environments. There is either a weak or dysfunctional link between what and how people learn, where they learn and what they practice in real time. School is like a break from real life, and vice versa. Academic holidays, “a break from books”, immortalizes this rupture. When most of the graduates from “a break from life” universities go to work in the communities, they find out that they either use a small component of

what they learnt over a long period of time, or what they learnt is completely irrelevant or out of date. So, all they have at the end of the day is a negotiating paper that is free from knowledge and skills. Thus, they are required to be completely re-educated, to be of use to the practice of the profession, or cause of the community.

GKI develops and brings skills that are relevant to a particular local community within a complex global world. Students work with a particular community through the GKI Empower research system, while constantly communicating and collaborating with GKI Network Learnovation. The work with the community is geared towards developing something that is of value to that particular community and meet whatever challenges that may arise in the process. This kind of community engagement gives students and GKI an opportunity to be part of making sustainable change in, and with, the community. All parties involved develop a skill in, and understanding of, community resilient and development processes.

Now, between the old university system and the new one embodied by GKI, in the former, learners do not become relevant during their student days and upon graduation, they still need to be re-educated. But in the latter, learners are relevant and instrumental during student days, upon graduation and after because they continue to learn under the precept of lifelong learning. Further, between the old approach to technology in research and the endogenous use of

technology GKI is employing, in the former, technology almost comes into research as an end in itself. But in the latter, the research system is more than technology. Technology is only an interface. The GKI Empower system calls for an entire change to the way survey research processes are handled. The methodologies, methods and research instruments require adjustments, if not the introduction of completely new ones. This is because the success of this system lies in the capacity of the entire process being able to meet scientific standards for quality and, at the same time, to capture what current scientific methods are failing to, that is: establish *particular* characteristics of the region or community, capture and track trends over long periods time, have data that is valuable to local communities which communities themselves generate and use to builds their strength from within, have data with global value, so that trends across communities can be discerned and used to help other communities, and ensure that the data is collected by communities, and not outsiders.

Learning without borders

I established in Chapter 6 that GKI had a challenge to meet two local expectations: having a visible campus and an affiliation with established known universities. These local social constructs can be deconstructed. In fact the findings suggest that GKI is already unraveling these old-aged perceptions of university education, including perceptions of the way in which online learning is known to be conducted. While the absence of a university campus is a

disadvantage for GKI in the context of Zambia, its blending of online and offline experiences are satisfactory to both students and experts who participate in GKI. The GKI Staff 2, who is a virologist with the American Center for Disease Control, and lectures at the Medical School of UNZA, said:

By undoing the typical feature of a university campus, GKI has dealt away with the most difficult issue with education in a Zambian socioeconomic set up. Not everyone today would ably need to erect a beautiful, big university campus as the tradition has been. These kinds of capital projects are not just expensive. They may not be ideal along the way. We do not need a fleet of physical buildings in as much as that is a part of the policy guidelines for establishing a university in this country. The question is: in the absence of a physical building what exists? Just the individual, the learner, the presence of a learner in infinity space. How can that learner then learn in such a space because this country is hungry for education, people want to be educated at every stage wherever you go; the youth want higher education. GKI says all you need is yourself in front of a laptop with connectivity and power, a network of people and communities and you are good to go for a high quality post graduate degree. But still a building of some kind is needed for administration and occasional class meetings and seminars just like we have now.

GKI students and professors integrate learning experiences in the community and daily cultural activities by inhabiting spaces of everyday use in the community for discussions, classes and consultations. For example, the students in the teacher program meet in the secondary schools where they work. They also use community halls, market places and boardrooms of organizations for lectures, discussions and talks on given topics (see Figures 13 and 14)



Figure 14: GKI students in session with a Global Expert at Chongwe Secondary School



Figure 13: GKI students in session with Global Experts at Chibombo Secondary School

Pedagogy Classroom Approach

The GKI way of learning is characterized by differentiated methods that are learning centered. The mainstream dialogue in education is about student centered learning. Given its origin, which is a break away from teacher centered learning, inherent in the student centered learning is the idea of a teacher and student. But the “learning centered learning” of GKI suggests that with or without the teacher, as traditionally defined, learning can take place. What is critical is the environment and the availability of materials that can be innovated into learning materials. In the GKI, everyone is both a teacher and a learner.



Figure 15: GKI Members with Community Leader and School Headteacher in Chibombo

After visiting a community in Chibombo with GKI professors (Figure 17),

I wrote in my diary that:

We could not solve the research problem on how to get communities to record their own stories until we went to the communities themselves to talk with the people. We literally sat down and were being taught by the local teachers and community leader what to do and how to do it. We became students of “village people” with all our degrees. This is the power of learning and new approach to learning that puts communities at the center.

The experience in the community brought to mind reflections on my own practice as a teacher, located in the process of learning with learners and society:

I am a teacher. But I do not teach. I learn with the learner. I facilitate an interdependent connection between, and a scaffolding process of, the learner’s understanding and my own. The understanding is of the basic principles at the core of learning, unlearning and relearning. I facilitate this by integrating with the learner’s perception of the captured essence of “something” in its historical, cultural, spiritual and social context. This is a moral act of love. I therefore give room to the learner and my Self to grow up together in handling issues and our renewed selves with ever flaring merged horizons of our lived reality.

GKI courses attempt to realize this way of learning. Thus, the students and professors do not come together for course content delivery. The course modules are given to learners way ahead of time. When they come together on their own, or with the professors, it is for knowledge generation through discussions, presentations, debates, games and conversations. These activities do not talk about the course content *per se*, but ideas invoked by the content, and involve the discussion of concepts that are exciting or difficult to understand, and the applicability of such concepts to the Zambian situation. Master 2 shared his experience in the GKI program saying:

I had one philosophy I loved when I was growing up during secondary school days. When I went to university, unfortunately, it got distorted. It's coming back though. I love the idea that a human mind is not an "empty bucket" waiting to be filled. The entire human soul is a vessel carrying the mind that is like a flammable gas, a flammable figment waiting for an igniter, and once it is ignited it is set free and the flames will continue to burn provided there is the liquid to support it. And that is what GKI has done: ignite my flammable self. That is not what these other institutions did to me. These other institutions were just giving me what to know, or how others have seen things. That is just putting more gas. But what GKI has done is to take this gas and then put it on fire. I think this is what a university should do and not necessarily just to give you course content. Much as a lot of course content is coming from professors out of Zambia, but when materials are brought, our first task is to ask: What sounds relevant to our context? What is missing? What do we have which we can add to it? What do we learn from it? This makes me as a student to no longer be on the receiving side of instruction. My feedback is no longer meant to primarily be for grading purposes but for bettering the course. For example, as GKI we have developed protocols, entry protocols into communities. When I go into the community and discover that it is lacking, I come back and recommend what needs adjustments. So, the professors who traditionally were the instruction givers, become receivers of instruction too. It is a cycle: you give an instruction and at the same time you receive feedback which is an instruction in itself on how that initial instruction should be adjusted or sustained. This makes our class sessions fascinating. The background of many of us is that we were taught and raised with a philosophy of a certain "radicalism which cripples", a "complainant radicalism" that does not build. What GKI classes do is to make you learn to critique not just for the sake of offering that critique but to provide or seek for a practical solution. This process hasn't been an easy one because of my background of just criticizing yet without care about what happens afterwards. But when you are being made to think through your criticism, you tend to start caring to say "but what is it really that am talking about?" "What am I doing myself about the issue?" I almost gave up but I realized I might as well just experience this to the end because it is not just a paper which is coming my way. It's a skill, a value and that skill has been hard earned as you know "old habits die hard". I have learnt this not behind a desk but huge knowledge

exchange through networks, linkages and reading well-tailored course material I have an input in as a student.

As Master 2's experience shows, GKI pedagogy is changing the assessment modes as well. There is more of group or collaborative assignments and examinations. These assessments focus more on the application in real life of the skills set. The GSU Professor 1 argued that

I am seeing that in the business industry with these weekend master's program it is become very popular in the United States, for example, to have individuals meet with their professor one time at the beginning of the year and then it remains their responsibility to work as a group to complete the assignments. I think that creates responsibility in students and also creates a sense of community, because one of the things I think we need to do is to move away from the old way of everything is my responsibility - individualism. As an African American, I feel we can learn that from our African culture, it's a team approach, a sense of community. This is now the case in medical fields, legal and business world. It's a team of doctors who are looking at your medical tests; you no longer have one lawyer making a verdict. This tells us that we need to think differently about education in terms of assessments and testing. New assessment tools for teams, students learning together in networks when they're resolving an issue need to be developed as a practice. As GKI I think we are making the right steps towards that. But we need to consider that just like there are students that would love to see a building and we therefore at least erect a school building for their sake, there are students who are not effective in groups. They work better when they are alone. But then we are seeing to say the environment around really seems to support people working together. Should we still consider those "loner people"? Or should we force them? I don't think we need to force them. The question becomes how can they work collectively by working alone? I think you always provide an option for people who are on the perimeter and that comes of course from my background in special education and I believe its inclusion that matter. I think all children ought to be accorded the fullest extent of possibilities to be educated together as opposed to special schools, special classes within schools. There are no special worlds for special people. We co-exist in one world. So I think that you commit to a

certain process which remains as collaboration in groups but I don't think you deny the person who doesn't work well in groups. You give them the opportunity to do things their way but you introduce them to collaboration and this is what we are doing and working on as GKI.

GKI pedagogy flips the classroom, and emphasizes collaboration, applied social learning and the use of technology. Chongwe 2, who had just enrolled in the teacher GKI program at the time of the interview, noted:

Yes, the GKI teaching and learning is different. Just look at the methods. The first thing we looked at was the differentiated methods of learning where you actually use different kind of methods for different kinds of learners and topics, learning spaces and also incorporating the technology, that is of course very important at the moment. You don't just talk about this but this is actually how we are learning too. The universities that we've been to for instance, there were no such things as being put in a discussion within a lecture with friends, the lecturer or an expert. Of course we had tutorials where we were divided into smaller groups. To be sincere, it was a headache going for tutorials and the experience was usually terrible. It was like you are being tested for Ebola. It is like the tutors had no methodology of motivating us. There was something seriously wrong. I don't know about today but even the technology was not so much used in the learning process and students were not fully involved. I remember one professor whose instruction went like all assignments should be hand written. Really? May be in an art class or something. I think considering the fact that we're in the technological era, it would be very good to use methods that involve technology and also, make sure that the students are part of the learning process.

The technological integration in the learning process is of paramount importance in the GKI learning system. The typical equipment surrounding a GKI student is a laptop, mobile phone and tablet. Every student has a laptop in an environment where you find some students from other universities in Africa

do not even know how to use a computer. GKI students are exposed to digital skills in every course, as well as given a course module tailored specifically for digital literacy in areas such as video shooting and editing, photography, blogging, Google Sites and Wikis. If a student does not have his or her own laptop, or the means to secure one, the institute provides and works out a mechanism for the student to acquire one and pay for it overtime. Also, students have internet dongles that connect them to the web through mobile internet providers. This enables students to access internet when they are away from the GKI Learning Center and when in the field – communities – for research. Comparing the blending of online and offline learning at GKI to other universities, UNZA Professor 1 said:

The online learning, where students do their activities and upload their work to the institutional website for the staff to check whether they are doing the right thing or not, that is something UNZA is not doing. The University of Zambia, at least based on what I know, now has a certain department unit with a computer centre and library. There are design courses which UNZA students can take online and they are learning at that level. Though a lecturer, I am not familiar with that because it is kind of exclusively for that department and their courses. In fact, I know how good those programs in the UNZA library computer center are. But I think the GKI ones are giving students a chance, for example, to be well equipped with basic program skills to gather, document and share information in differentiated ways and in the field. Other professors away from Zambia read and pass comments. That's something I've not seen with UNZA. This is good what GKI is doing. So this aspect of having both online component and physical meetings help the students to have a well-rounded experience, a full kind of package. They strike a balance between the traditional and the modern ways of learning, that is good.

One of GKI's pedagogy experts, GSU Professor 2 argued along the same lines:

When I think of other universities different from GKI, I think of universities that have a campus that are more traditional. In terms of their course delivery, many of those traditional universities are moving to hybrid courses where some are face to face, others are online. Competition is getting stiffer in online programs. We are finding that traditional universities are losing a lot of their students who want to stay in their pajamas as they complete their courses. And there are lots of programs out there where they can do that. However, quality of those programs is the question. Many of them are “fly by the night” programs. And some of them are quality programs where students are actually getting a good education. University of Arizona for example. They offer all their courses online, they use professors from all over the world. But when you think of GKI in terms of this, we're ahead of the game because we are focused on a designated population, teachers in rural Zambia for example. It is not about that alone but the technological, economic and social environment we are making this possible. When you think about online programs like the phoenix program, Phoenix University, and several others that are popular in the United States or around the world, you do have the issue of localization. They have no local expert both physically and virtually questioning the curriculum with the students and working with communities.

It is the incorporation of local knowledge and expertise into a globally linked curriculum, the localization of curriculum to specific contexts by those within the contexts, and the ability to make this happen in a technologically low resourced environment that is making GKI's blended learning approach unique.

Ubuntu Inspired Approach

One of the unusual aspects of the GKI's approach is the advancement of the imagining of transformative Ubuntu-inspired learning as part of the process of the localization of the education and research being offered in Zambia. Ubuntu is a local philosophy of being that is not exclusive to Zambia, but across

Africa, except where black culture has been replaced by something else. Like other identifiable realities of the indigenous peoples of Africa, such as the pyramids of Egypt, and the great stone walls of Zimbabwe, the concept of “Ubuntu”, “unthu”, or “hunu” continues to spark much controversy, and has been termed as a difficult concept to define by some writers, commentators and researchers on Africa (Asante, 1987; Watkins, 1993; Ramose, 1998; Vanier, 1998; Tutu, 1999; Bell, 2002). At the crux of the difficulty such writers have encountered is the thesis that Ubuntu, as a philosophy, seeks “interpretation, expression, understanding, and moral and social harmony, rather than being preoccupied with verification, rationalism, prediction and control, as reified through Western Scientific norms” (Swanson, 2007, pp. 54-55). I argue that ‘Ubuntu’ only becomes a difficult word to define if one would like to universalize and standardize their meaning of it for all to follow, and as part of the project that seeks to distinguish Ubuntu from Western or Asian thought, an attitude that is decidedly contrary to Ubuntu in every way, since such a project involves a blatant creation and projection of “the other” and mechanical application of habits of thought of the projected “other” to something – Ubuntu – that is larger than ethnicity, geography, race, history and nationality. Other writers have defined Ubuntu as African philosophy of humanism. While some elements of humanism can be found in Ubuntu, it would be misleading to define Ubuntu as humanism because humanism has overtones of disregarding

spirituality, but volarizing the intellectual and the physical in the solving of problems. It would be absurd to imagine an African philosophy that attempts to discard the spirituality of reality, just like it is misleading to suggest that a preoccupation with verification, rationalism, prediction and control is a reserve of western thought.

Ubuntu is an everyday lived philosophy of the primordial energy that connects the individual self and the cosmos – universal existence of everything known and unknown. The wellbeing of the self and the capability to foster it is inextricably intertwined with its immediate and extended environment. This connection and shared fate of everything to everything else manifests predominantly at the level of the relationship of the individual to the self, the family, community, ancestors and the Gods. The teachings of this philosophy and theory guides human action in practical and measurable terms through such codes as: “I am because we are”; “We dehumanize ourselves the moment we dehumanize others”; “It takes the whole village to raise a child, care for the old and rest the living dead”; “Never urinate under the solitary tree along the road, for its shade provides the unknown traveler a brief moment of rest and relief”; “Never defecate and foul the air in the caves for they provide shelter to the lonely traveler when the sun sets or when the invincible predators take control of the plains”; “The stomach of a traveler is as small as the kidney of the bird, and cannot finish whatever the household pot contains”; “The poor can never make

us poorer when we share whatever little we have”; “Do not prevaricate to see which way the wind blows”; “Do not defecate in the homestead”; “Knowledge comes from the mound, goes to the mountain and back to the mound”; and “If a child washed his hands, he could eat with kings”. In the understanding of Ubuntu, the real capacity and competitiveness of individuals, institutions and communities are the connections and interrelationships between and among them.

Imagining a transformative Ubuntu-inspired learning therefore includes efforts to work on the human being as an integral part of the community and member of, and who is, the society. The aim is to work on the mentality of students to always see their work and progress in light of their communities, their identity, and understanding of their value to society within the global context. Learners thus question and explore academic concepts using their social context as a canvas. Their goal in a given course is not earning grades on an exam transcript but getting concepts working in their environment to solve or understand identifiable social issues. UNZA Professor 2 noted that:

in our traditional universities right now the template that we let our students use to question concepts is how well will “I strategize to get an A+,” not necessarily to say how does this apply and work in my social context, what value does it create? I believe we are not working with human beings, we’re working with machines, that’s what we have turned our students into. But this is what I see GKI changing and that is why a concept like GKI will not make sense to some people, it won’t because this means a shift in power. Test scores are part of the major instruments of power professors enjoy. This is the challenge we are undoing through GKI but one step at a time.

The change of focus from test scores to social systems ensures that students are not forced into replicating and regurgitating old modes of thinking, as one GKI student, Chibombo 3, said: “I am glad to be part of a program where I am encouraged to think critically as a human, and I feel safe rather than intimidated and pressured to think like my professor.” Another GKI student, Chongwe 1, added to say:

I feel the program has made me open minded not because I have not been open minded. Now I feel more curious and concerned with the everyday living standards of the community people around me. You see as a school here and being learned teachers we belong to almost an entirely different world from our surrounding communities. But now I feel I can do a lot more than just research, teach and upgrade my qualifications. I see how I can contribute positively in my community’s everyday life and living as a people with a culture, knowledge systems and technologies. Mobilizing local resources to tackle local problems. For example, we have a problem here at Chongwe Secondary School when it comes to water. You see, the community and the entire boarding school draw water from that small tap over there. So I was thinking to myself saying “why can’t we, maybe create another water source inside the community?” When the schools are open this creates a very big inconvenience both to the community and the learners: we tend to stop community people from accessing water in that the moving up and down, every now and then, of people coming to draw water, at whatever time they want to, disturb learners in a way. The interesting part is I have been in this school for three years now and this has been the trend. Until the conversations we had at GKI in the past few months, I never thought of how to sustainably solve this problem. It was simply trying to do the same jostling of either chasing community people or trying to force them to follow our school timetables.

GKI Staff 4, an Asian PhD student at SNU, highlighted his experiences of how the human side more than technical test scores, the rethinking of approaches

in education and community involvement, was a feature he saw when he visited

GKI in Zambia:

When I went to Zambia, my interaction with GKI students showed me that our outcome as a university will not be easily measured by old statistical approaches. This is because our outcome will be people themselves and the work of the people changing their lives and communities. Thus, we will need to make tracer studies to follow this first cohort not just after they finish but to follow along to see what struggles they are having in life outside GKI student life, their challenges and successes.

In the same vein, GKI Staff 5, a Crystal Consulting finance expert volunteering at GKI observed that:

I know a lot of ineffective teachers, who should not be before children on any single day and I know a lot of ineffective organizations that prepare teachers that should be shut down, that should not be allowed to continue. My interactions with students and professors here at GKI has given me the ability to critically look at different aspects of education and I think it doesn't matter what an institution looks like, in terms of the building. What really matters is the faculty that makes it up, the human beings, their commitment, skills, talents, qualifications and passion to teach the course as well as teach the student. Even more, the selection of the students who are going to be recipients and innovators of the curriculum. It is not just about the grades they come with. Their humanity is critical. And I have met a quality that I have liked here at GKI, a quality that even a person like me who is not an education expert is validated to have a freedom of expressing myself on education and community transformation matters. What I mean is that in a typical university set up my province would only be books of accounts. But here I have no province as my financial intelligence has found expression and value in the entire learning process of the institution and work with communities.

Transdisciplinary Expert Collaboration and Representation

The GKI Network Learnovation is made up of people with different cultural and professional backgrounds and living in different regions of the world. This is a striking feature that many universities in Zambia and other poorly resourced countries struggle to have, or do not have at all because of financial considerations. For universities in wealthy nations the tradition is to physically attract and domicile those professionals in one place. The endogenous model of GKI that uses knowledge as currency (outlined in Chapter 5) makes it possible for GKI Zambia to draw and connect professors from around the world, including nations such as the US and Korea. There is also growing local interest and participation of professionals from different institutions within Zambia. GKI Staff 2 observed that this is

the unique factor of GKI. Take UNZA, for example, were I work, we only have full time professors who are predominantly Zambians. Non-Zambians are almost non-existent. May be you can talk of one or two expatriates in a100 lecturers. Research collaboration across schools and departments, and even within the same department, are rare. But with GKI, from the get go, we have professors from four continents: Africa, America, Asia and Europe. These are also from different professional backgrounds and cultural orientations.

Higher Education for All

Enrolments in both public and private universities in Zambia continue to be largely dependent on a person's ability to handle financial costs, like tuition, and the university's capacity to hire faculty and build campuses. This denies thousands of young people educational opportunities. The gravity of this

situation is clear. In 2014, for the first time, Zambia recorded a suicide case; that of a 19-year old girl who took her life for having twice been denied the government scholarship to study at UNZA. Being the first known case of this nature in Zambia, her story is worth examining here, since the circumstances surrounding it are emblematic of the conditions faced by the majority of young Zambians.

The student's name was Munsaka Mukwamba. She came from a poor background, but proved to be exceptionally brilliant. In 2012, she graduated from Kabulonga Girls Secondary School with 6 points, a perfect score for a high school student in Zambia. Pursuant to her dream to become an economist, she applied for admission to UNZA in 2013. She was admitted, but could not pursue her studies because her application for government funding given to intellectually gifted, but economically challenged, students was rejected. Munsaka did not give up. She decided to re-apply for admission and support the following year. Again, her application to UNZA was successful, but not in terms of government funding (S. Sishuwa, personal communication, November 18, 2014). Coupled with the fact that in Zambia, local scholarship programs other than the government's one are not readily available, and she was no longer eligible to reapply because only students who completed secondary school education within the preceding two years prior to their application for admission and support are eligible, Munsaka could not take the disappointment anymore.

She could not see how else she was going to fund her studies because her parents could not afford tuition fees. Even more, she understood the value of university education, and could not imagine a future and a life without it in a country like Zambia, which is characterized by abject poverty, gender inequality and youth unemployment. She thus killed herself, leaving a phone text message behind for her sister, which read, in part: “I can’t take it anymore” (Mataka & Wangwe, 2014).

The GKI model of tuition-free higher education is a timely response to addressing the tragic circumstances that led Munsaka to committing suicide, as one GKI undergraduate student, Chongwe 4, noted:

I am very happy that I am not on the run anymore looking for an education. Even more, having found one, I haven’t paid anything because like right now I can’t afford my own education let alone a quality education like this one is very expensive. For you to study something you need to pay huge sums of money here. So, I am very joyful. But at the same time I am challenged because something has come to me “free of charge”. I feel I should really work so hard, you know, to be the best I can because I really know, although I haven’t paid any tuition fee in monetary terms, somewhere somehow somebody is paying for me. And I feel I should put in my best so that I can one day be that invisible person paying for another in need of a quality education, a quality life.

Many young people in Zambia desperately need higher education, but their economic situation, not their brain power and will to learn, is making it impossible. GKI is the first private university in Zambia to offer tuition-free higher education. However, I think the value is not so much in making the

education tuition free, but the reason for doing so, which includes the content of that education. My view was shared by the GSU Professor 2 who intimated that:

You know, we need to get this education out there to everybody, education is power. If we ever want to stabilize, have an equal access to local and global resources, political power and control and caring, we need to do that. Higher education cannot continue to be reserve for the wealthy be it in rich or poor communities. The content itself should be community empowering and transformative. I see GKI as a sustainable model with this free access agenda and community transformation. Hopefully, Zambia is not the only place it's going to be. Everybody we talked to seem to be happy. When we talked to the World Vision chief we met here in Zambia, I told her we really don't want to upset other universities making money out of charging tuition. It is not our intention because you can really unintentionally create a lot of negative feelings which you don't need when you are trying to solve old-aged injustices like access to power tools that higher education is. She said universities like UNZA have few seats and there are so many people that need to be in universities and this is an opportunity. The more seats we have for all our children, the better so there aren't going to be people who don't support this.

Unbundled Roles

Similar to its classroom approach of dissolving the traditional teacher-student hierarchy and relationship is GKI's network management style. As an institution, GKI's Network Learnovation has roles of participants unbounded and, therefore, blended in such a way that anyone can be anybody at any point as long as they have the interest and capability to attend to the need of the network at that particular point. The only thing the person needs to observe is the importance of communicating clearly and connecting their action to that of others as Lynn Ilon noted:

I am not really a teacher by background but I love learning and I enjoy working with people, am a people person. I thus just love it

when work feels like we are all an intricate and integral part of the whole process. I don't think that the roles of anybody are bounded. Let me just say that sometimes the boundaries can be hazy and they move around depending on what you're doing, where you are, who you are talking to. This aspect of having roles that are not as defined in a traditional way is not something intentionally designed; it organically happens but not without the people involved noticing it. So, I think intentionality and strategic strategy, nobody said "ok, strategically we will let these boundaries be fluid". What is happening is evidence of the end product of people who are doing what they are interested in. Rigid people are not going to be interested in this project, I mean people who get things done by the book. This is not some archaic, authoritarian structures, top down stuff. People who think that way, as a matter of fact, those will be inmates, inmates is the wrong word, but may be detractors, people who say "I can't work" and this "can't work", because they can't. They are more comfortable with the top down arrangement. Personally I am more of a grassroots person, social change kind of from the bottom up. I have found that this defines our GKI people right now, bottom heavy and out of the box thinkers.

The GKI administration and management system can best be described as a "wirearchy". A wirearchy is "a dynamic two-way flow of power and authority, based on knowledge, trust, credibility and a focus on results, enabled by interconnected people and technology" (Husband, 2013, par 8). In a wirearchical system, purposeful human activities and the structures in which they are contained are evolved from top-down direction and supervision ("hierarchy's command-and-control") to "champion-and-channel": championing ideas and innovation, and channeling time, energy, authority and resources to testing those ideas and the possibilities for innovation carried in those ideas (Husband, 2013, par 5). So, the question is no longer who is the boss, but what is the problem and how can we all put our heads and resources together to strategically solve this

problem. This does not obscure leadership but actually makes it more purposeful. The role of leaders becomes identifying talent and matching it with interests, like and complementary minds around complex issues.

Major Challenge to the Efficaciousness

GKI is based on an endogenous model that uses knowledge as currency – people participate in the system by bringing in knowledge and taking away knowledge, which explains how GKI has sustained itself without huge funding thus far. At the moment, the system is surviving on commitment, personal sacrifice, trust and excitement of doing something new. There is an evident feeling that this goodwill is unsustainable in the long run. A more thorough system of incentives is needed as the SNU Professor 2 noted:

GKI is working right now because there is commitment to the system. It is all entirely based on commitment, sacrifice and trust. Everybody is committed to making this work. But then most of the problems that will creep in will be highly related to personal issues, personal benefits, for instance, where one would say “what is my benefit?” Yes, it is exciting now and people are sacrificing all they can sacrifice. We need to work out a system of incentives whether money or not. A lot of people think in terms of money and that’s why even students will think in terms of money in that they would like to be employed after this. So that is where we have serious issues. I think all that would need to be explored further is to say “how can it continue to work before sacrificial tendencies burn out?”

The UNZA Professor 2 emphasized that:

An institution which sustains itself must have its own source of revenue, the source of revenue may be the student themselves paying for tuition fees or maybe the institution itself is outsourcing resources which go into the institution. Sustenance for me is in terms of the source of revenue to run the institution and then have key staff

employed. Yes, you may not have everyone on full time but have some key staff on full time who should oversee or run the welfare of the institution and pay them well, that's the basic principal in all institutions in the world. Look, I may be accused of being cynical but these are key things missing now which are forcing me for example: one, to spend my money on GKI which am not being refunded and two, spend my time which I am not being paid for. You know our local situation, time is money. Right now, I will be going to teach at GKI. Yet, I have a lot of work in that envelope which is giving me money, about US\$8,000 worth of work is in that envelope but I am putting it on hold because of GKI. Three, I am using my personal equipment like cameras to teach students real camera work. Yes, there are those gadgets, the tablets, but that does not fully reflect reality of the real world, the Zambian world I mean. Also, students are provided with laptops but myself as the volunteer I am using my own. Let me put it this way, whatever am using for GKI is not for GKI, they are my personal resources. This needs to be balanced if this scheme is to live a test of time. And that balance means cash. There is a limit to benevolence and excitement.

Lynn Ilon too recognized this problem and summarized the whole challenge of revenue in the following words:

First and foremost, GKI has proved to survive even when it was not supposed to and the reason is twofold. Firstly is that it is an innovative education system start up and many start-ups don't survive especially in an environment like Zambia where almost everything is in decline and it is completely dependent on the curiosity and sacrifice of people involved and scattered across continents. Secondly, no one has ever done this before and pretty much no one knew what to expect. But looking at GKI from purely an education system's perspective, for me, it is sustainable on the following grounds. The philosophy of the economic scale in terms of education, exchanging knowledge forms the first base. Knowledge can be replicated at absolutely no cost at all but it creates value and its own demand. The second base is the scarcity of resources in Zambia and Africa in general in terms of learning institutions. The education policy for primary school education right now states that in every two kilometers is supposed to have a primary school for example. But for universities, the government wants in every province to have a university. Now that is hundreds and sometimes

even thousands of kilometers apart. But the philosophy of GKI is that there should be a learning center as a hub to ensure learning takes place everywhere where people are. You don't need to even move a meter away. This brings in the third component but still on resources, the reduction of capital costs of erecting classrooms. People's homes, markets, industries, factories, spaces of their everyday work become classrooms. This means people that come from maybe rural settings, they could still be learning just right there and then. The only challenge that comes in therefore is what are the tools of learning? The equipment required? Does it need any special attention, any focus? We are talking about networking. How do people access this learning material? How do they communicate with the instructors? And do the instructors have the capacity to look at the material of all these thousands of students? Or a new pedagogy ought to evolve? Do we have the electrical power sources if we are looking at the laptop and mobiles being the access and monitoring points? Do we have technical support for maintenance? Do we have connectivity in terms of internet? These are questions that should be answered thoroughly. In answering them, you will undoubtedly conclude that we need a sustainable stream of revenue.

I do not share a very different view from the rest of the GKI participants regarding the need for a revenue stream. The question that needs to be answered is, for what, specifically, is revenue required? It is my opinion that issues of revenue will grow into an even bigger challenge for GKI in Zambia, if what GKI is trying to achieve is taken as an exclusive GKI battle. Yes, UNZA Professor 2 may be justified in saying "There is a limit to benevolence and excitement". Nonetheless, transformative progress demands that benevolence and excitement towards solving one's own problems be limitless, particularly if education is the key to nationhood and development of a people. Reflecting on this, I posed the following questions in my reflexive journal:

Is education really a key to national development? If it is, is it this kind of education we currently have or it is a different kind of education? If it is this current education we have, why are we still in poverty and war when world statistics show that we have more people in, and graduated, from schools now than centuries before? If it is a different kind of education how does it look like, where does it come from, and how can we have it? If education is the key to our freedom and development, why do we pay lawyers and politicians more money than teachers? Why are we treating teachers like “trash”? If education is the key to our nationhood and development: Why do we allow anybody including our enemies to get our children and educate them? Why are our standards for becoming a teacher so low to almost non-existent? If education is for the greater good of all of us and the benefits of having an educated population far outweigh those of having an illiterate one: Why do we need to pay each other to educate each other? Who amongst us needs to be paid to teach their child how to speak? Who amongst us requires to be paid to teach their sibling how to walk? If education is the key, we need to rethink and think more deeply.

I am persuaded therefore that there is another way this challenge of funding could be addressed and discussed. I elaborate on this in my conclusion and recommendations in Chapter 9.

Summary

Although it is too early to tell, what is happening with GKI suggests that an endogenous university design can work in a context like Zambia. Whether or not the system will be sustainable in the years ahead remains to be seen. The current evidence, founded in its institutional guiding ethos, outlook and aspirations that explicitly seek to explore, challenge, develop, contribute to, embody and manifest the kinds of values, concepts and ideas, as well as approaches that foster integrated school-community research, transformative

Ubuntu-inspired learning without borders, critical pedagogical classroom approach that is technologically enabled, transdisciplinary expertise collaborations and representations, striving toward higher education access for all and unbundling traditional power hierarchies in management and administration of the processes, suggests that GKI has potential for sustainability. Already, the integrated school-community research has linked GKI with experts within and outside Zambia, local communities and secondary schools – Chibombo and Chongwe – and one local NGO, Crystal Consulting. Plans of deepening and expanding the integration process to other secondary schools, institutions and communities are underway. Perhaps the key questions that arise from this chapter are: what can one make of the picture the lived experiences and perspectives of the participants have painted about GKI? The discussion in the next chapter answers this question by showing what I make out of the lived experiences and viewpoints of the participants, including my own observations in this chapter.

Chapter 8: Sustainability of the Global Knowledge Institute

In Chapters 5, 6 and 7, I discussed how the Global Knowledge Institute (GKI) was designed and was working as an endogenous university system. I outlined and discussed the challenges and successes of the system, based on the lived experiences of the participants, and findings drawn from GKI documentation and my research participatory observations. I also highlighted identifiable lessons of how it was sustaining itself. In doing so, I brought to light the merits and demerits of employing knowledge as currency and multiple knowledges as core elements for the sustainability of a university system. In this chapter, I further the discussions of lessons that can be learnt from the GKI endogenous prototype. But now I focus on the notion of sustainability. I explore the idea of “sustainability” in the GKI applied framework, based on the discussions made in the preceding chapters, evidence from oral interviews, and my own reflexivity. This is to arrive at a conclusive answer to the main question of this inquiry that sought to establish whether or not GKI is instituting a sustainable university system in the context of Zambia. To decisively answer the main research question, there is need to have an understanding that transcends an appreciation of the outcome of an endogenously sustainable university – institutional viability and contribution to social transformation. A person needs to understand the nature of sustainability itself. I present sustainability as a process that is characterized by seven motifs: ownership, interconnectedness,

innovativeness, inclusiveness, heterogeneousness, organic adaptive growth, and access to knowledge and networks of people. These motifs shifts the discussion and understanding of sustainability as currently employed in much of the literature. To make the shifts clearer, I have divided this chapter into two sections. The first one reviews the old view of sustainability. Then, the second one gives the endogenous view, my view, of sustainability.

Historic View of Sustainability

The first decade of the 21st Century was the point of culmination, as regards the growing interest in sustainability across all fields, from the arts to humanities, and from social sciences to natural sciences. Sustainability became "increasingly discussed by policy makers...the popular press...and journals in various technical fields" (Linton, Klassen & Jayaraman, 2007, p. 1076). Approximately "over 2,200 articles were written about sustainability or sustainable development" by 2009, and "this is more than a five-fold increase from the number of similar articles that had been written by 2000" (Stoughton, 2011, p. 13). While this is true, prevalent literature has not explored sustainability more as a concept in itself. It has focused on sustainability operations and practices, especially best practice case studies (Bloemhof-Ruwaard, van Beek, & van Wassenhove, 1995; Christmann, 2000; Linton et al., 2007; Pagell, Chen-Lung, Krumwiede, & Sheu, 2004; Pagell and Wu 2009; Amodeo, 2005, 2009). And theoretical literature has only served to examine

sustainability from environmental and policy perspectives aimed at developing or evaluating strategic frameworks for sustainable practices (Hart, 1997; Christmann, 2000; Hart & Christensen, 2002; Hart & Milstein, 2003; White & Lee, 2009). There seems to be a silent agreement that everyone knows what sustainability is, but circumstances and needs unique to each individual, institution or community determine what they later define as sustainability under their given circumstances. Thus, it is generally accepted that peoples' condition and context develops their perspectives and beliefs about, and hence their definition, of sustainability (West 2007; Rhoades, 2005; Robinson 2004).

For example, in the area of agriculture and natural resources, two differing perspectives or philosophies on sustainability issues exist, namely, industrial and agrarian philosophies, with each trying to dominate the other or create a balance (Thompson, 2010). Let us take the case of people living in industrialized societies. They operate within a globalized food system dominated by the modern utilitarian industrial philosophy, which often makes a clear distinction between humans and nature. But for those people and cultures subscribing to the agrarian philosophy, the dualistic perspective does not apply, and sustainability perspectives tend to focus on finding a balance in human relationships with nature. For agrarian people, "Everything we know about the world, we know because we interact with it, or it with us" (Pretty, 2002, p. 12). Whether it is literature espousing a worldview promoting the sustainability of

industrial thinking or a worldview encouraging natural coexistence, sustainability is still being understood at the operational and practical level, while no time is being given to the appreciation of the concept in itself.

Most models describing and measuring sustainability focus more on reductionist indicators, that is, “economic and biophysical indicators” (VanLoon, Patil & Hugar, 2005). Some researchers are hesitant to consider socio-cultural externalities involving value judgments. This shows their definition of sustainability to be wanting because the indicators are narrow, by virtue of their exclusion of essential social and environmental aspects of sustainability (VanLoon et al., 2005). Social perceptions of risks to available resources may correlate poorly with quantitative measures, due in part to the fact that quantitative data are often not readily available or easily interpretable (Pretty, 2002). People are more likely to make transitions in lifestyle based on their ideals and perceptions rather than quantitative evidence of local degradation based on scientific measurements (Blaikie, 1995). Thus, sustainability cannot be measured by universal standards with grades of pass or fail given to different communities across broad geographic regions (Stanton 2010). Instead, a more complete understanding of sustainability is essentially a qualitative endeavor and dynamic process approach that is specific to given regions, with their unique social, environmental, and economic constraints that need to be understood from the perspectives of local stakeholders (Walker 2003; Stanton 2010).

Further, it is argued that understanding of sustainability, much as it is locally contextualized, must, in any case, consider the context of those local issues within the broader global system. This is because whatever is, and becomes of, a given environment is a result of place-based knowledge inherited or accumulated through actively interacting in daily activities with itself in a specific context over time. But whatever its daily activities, one cannot overlook the global linkages that underlie the processes in, and of, that environment (Robinson 2004; Stanton 2010).

While the above arguments show the weakness in defining sustainability using what is called “narrow biological and economic sustainability metrics” (Robinson 2004; Stanton 2010, VanLoon et al., 2005), they still advocate for a focus on practices particularly broadening the number of practice variables in the sustainability equation and observing their trends over long periods of time. But the question that needs to be addressed is what is in sustainability that makes it sustainable, regardless of the metrics one would choose? It is the answer to this question that is among the great lessons I learnt in designing, observing, participating and analyzing GKI.

Sustainability: The Endogenous Perspective

The motifs: ownership, interconnectedness, innovativeness, inclusiveness, heterogeneousness, organic adaptive growth and access to knowledge and networks of people, I explore below present sustainability as a

social process that continuously creates, evaluates and adapts new knowledge. The significance of seeing sustainability this way is that it helps us realize that an endogenous system is a social process, rather than a product, focused on knowledge production and integration, or simply innovation. If this is true, then three things can be said to be true about sustainability. First, that sustainability is about reconciling ideas and practices, the relationship between and among them rather than the ideas and practices themselves, to develop new ones, innovation. Second, sustainability requires social capacity and a context of some kind if it is to exist over time. Accordingly, I argue that sustainability of an endogenous system manifests in varying interrelated forms of the durability and subjectivity of relationships in the process. Social contexts share varying capacities and the trust, reciprocity, relationships, and norms in a given setting. These have a decisive bearing on the collective capacity to collaborate around learning or innovation – the production and integration of new knowledge. Third, this perspective gives us an opportunity to realize that sustainability, and therefore an endogenous system, is self-organizing. This explains the very strong connections to complex adaptive systems⁵⁰ that one can observe from the findings on the GKI prototype.

⁵⁰ Complex adaptive systems are an emergent order in what are otherwise very disorderly mechanisms that explain the phenomenon of life. I have explained further what they are under the Organic Adaptive Growth motif.

This way of looking at sustainability explains the endogenous approach, which the GKI manifests, to systems planning, management and development projects. This approach views systems as *networks* rather than *independent entities operational within given bounds of resources or capital*. The most profound reason for this new thinking is the prominent role knowledge is now playing in socioeconomic and political change. Knowledge is taking over traditionally known capital, such as land and labor. Also, knowledge flows from multiple sources. Knowledge as capital and multiple knowledges define sustainability in terms of the motifs I discuss below.

Ownership

The learning system of GKI demonstrates a sense of entitlement to inputs, outputs, and the process being fed and producing the “puts” at both individual and collective level. The processes of the system have a communal participation that fairly benefits and is influenced by everyone involved. Everyone has a rightful claim. This partly explains how the institution sees itself more as a learning network than as an organization. An organization has a connotation of something being made up of independent entities that are operational within given bounds of power, prestige, resources or capital. Not so for a network. A network manifests a feeling of interdependent entities that function without power, resources or capital limitations. This is because the major exchange resource within a network, and in this case the GKI system, is knowledge. As the

theoretical framework discussed in Chapter One shows, knowledge as capital operates differently from other resources. Knowledge creates its own demand and supply, it does not work on decreasing returns to scale, it is non-rivalrous, non-excludable, and it is cumulative, mobile, and substitutable (Blakeley, Lewis, & Mills, 2005; Cortright, 2001; Romer, 1990; Skyrn.com, n.d.). Knowledge is an unlimited resource or form of capital. Because of this, knowledge as capital gives any system or project unlimited potential for growth and sustainability. Valuing knowledge in this manner gives every individual in a given context optimal significance. This is because each individual has a unique perspective to be harnessed. It was thus not surprising to hear GKI students expressing an unmatched sense of personal worth and ownership of the GKI:

With time, as students, we have learnt that we own the GKI even if traditionally our stay with the institution would end with our graduation. GKI has made us feel that graduation is simply part of an ongoing process that is, learning and solving problems. Much as courses are there, prepared by professors for example, as students we have the liberty to rip them apart and reconfigure them based on our context. Also, Communities we work with, you can see that some inhabitants are surprised to see researchers like ourselves asking them how and what they feel should be researched into and what their role as a community is. Even more, they still can't believe we will never "leave them nor forsake them" but will be with them throughout the process as co-researchers and implementers of whatever projects that may arise. Our new fellow students, the teachers, are still wondering how possible is it that a quality program like this can be for free in the name of valuing their knowledge, experience and community linkages. You see, it is always shocking when something about you that was never appreciated all of sudden becomes appreciated especially in a manner like this one (Master 2).

Another GKI graduate student, Master 1, felt that “above everything else, I own GKI as a student because whatever it believes in depends on my work with and in the communities; the knowledge and innovation generated with my interaction with the local people”. Master 2 further added that

I feel powerful as a student and that there is something more being shared among the community, myself and GKI. This networking will bring about great things in communities, and once that is realized, the communities will start changing on their own. So what I have so far learnt at GKI is that it has a facility and a capacity with immense potential to help communities become their own change agents.

Such sense of ownership expressed in the above quotes is making participants in GKI readily sacrifice more at personal and collective levels. GKI people seem to strongly feel that they are building something that is their own and making a contribution to their communities. On this note, GKI Staff 1 intimated that

I am very passionate about community sustainable transformation. At the moment I see my contribution to GKI as a personal sacrifice. But also from a community perspective, I am a member of the Zambian and African community. So I feel like although I haven't come in to contribute as a community, my efforts will go a long way in helping the Zambian community to be a better place. My contribution is highly appreciated because Zambia being the first center of our bigger picture I think I play a very key role and I feel that am appreciated because there's always feedback that “without you we wouldn't be where we are” and I know it's not only me, everyone is appreciated at a personal level. So I feel am appreciated and usually when I make a recommendation it's well-considered and usually implemented. In fact that is what has helped me keep on going more than anything else because there's no money, no real money is being given to me.

Also, UNZA Professor 2 explained his personal sacrifice and sense of ownership at GKI:

It's just out of passion that I do what I do. I am not expecting anything from GKI. I work with GKI because I committed myself that I'll take part in doing this kind of activity. I promised myself that I would do this whenever I have time. I commit myself not because of any other reason, not because am expecting anything from GKI! It is of benefit to the community and I am trying to link all the institutions I work with so they may network but that is not my personal benefit because these institutions can fire me just like they hired me. The knowledge that we are imparting in our students is an investment for the development of the country and the world. The contribution I'm making is an asset for the community and the planet earth, it's our only planet, so what we invest, whatever we do with our little knowledge, it is better we share it with our friends than perish with it, than die with it.

A sense of entitlement to GKI's output and input, self-fulfillment and sacrifice was equally expressed by GSU Professor 1:

I think I do this work with GKI because I am a visionary. I believe that this world will be a better place if children are literate, if we have a more literate population and the children are educated well. I think there might be better communication across ethnicities and race, countries and all the divides that divide us. I think that GKI is going to be impactful. And I feel I've been blessed with a heart that is open to trying to make this change without a lot of monetary compensation. I think my compensation is seeing that most students finish and impact the community and the children. So it's like a calling if you will, I think it's a predisposition that I have. I mean, look at my history in working with children with disabilities now. That is not a choice a lot of people will make in terms of their calling. So, really, asking myself why am doing this causes me to think about myself and why I chose the route that I've chosen and why I do what I do. I think it is just within a person and somehow it has to come out, and mine comes out in the way of wanting to improve education in developing countries. Most times we do what we do for money. But money does not give us a particular fulfilment inside us. In terms of your internal satisfaction and feeling that you have made a

contribution to this world, you can't buy that. You can only live it and so I consider working with GKI as having that rare opportunity that many of my colleagues don't have. It is an opportunity for me to live, it's not like something that I have to do. It is something that I have been blessed with the opportunity to do, so I do it, you see! I am the lucky one! This makes me a cheerleader, I mean being a proponent, an advocate for the program. When I tell others about it, I think I have the passion and the commitment about it to create in others a sort of enthusiasm and a need to inquire more about it. "Well, tell me more," is generally what people say. It excites me as I tell them more because I reflect on what we are doing in this process and reconstruct ideas. I also see myself in the role of a supporter and friend for students in terms of being there for them as they progress through this program. I want to be there and be a role model for them. I want to be someone they feel they can come to if they have questions or they want to discuss an issue. I think I have a certain responsibility there and I have a role of making sure the courses' are high quality and that they're meeting a certain standard and that we're co-working with students to help shape the courses better especially for these teachers: the "first trail blazing ten". We are learning from them, especially me, since I am not a Zambian, I want to learn from the students and ensure that this program is meeting their needs, the needs of communities, the needs of Zambia. I think if we produce really great teachers who critically think about things and teachers who may move beyond teaching and they end up in positions in the ministry or positions with World Vision, or positions with the embassies, you never know where those ten folks are going to end up. And so what you would like to hope is that this experience that they are having with GKI is going to live and transform them regardless of the positions they take on later.

Along the same lines, the GSU Professor 2 said:

Well, we are doing what we are doing because I basically believe in the power of the people and I always have had that but I don't know where that comes from because my parents were very straight laced traditional whites. May be that explains it too because I grew up knowing that life is not fair. So you need to level the playing field as much as you can for folks. I wasn't wealthy and I didn't come up in the elite class but I definitely had some advantages others didn't have. But like Albie Sacks, the South African judge, who once said "we didn't have a great amount of money, but we were very rich in values.

We grew up with respect for people, in a home that was profoundly anti-racist. It was part of who we were and being Jews was also part of that - being the underdog. We never let anti-Semitic remarks go by, or anti-Irish or anti-Black.” Being white without a lot of money is no excuse for me. I have knowledge enough to make it to be out here and there doing everything I can to help everybody instead of just resting on my laurels, that’s just wrong. I’ve seen too many people not get to go to school because the system was against them, you know, the system was unfair.

The comments by GSU Professor 2 show that the sense of ownership is not just entrenched by freedom to participate and make a contribution. The process you are involved in should have interconnections with one’s historical background, intellectual orientation, values and principles. Given that this interconnection is both at the individual and collective levels, ownership becomes individual as much as it is collective.

Interconnectedness

In understanding the essence of this interconnectedness, GKI was exerting huge efforts to integrate learning in the lived experiences of the students, communities and professors. A clear set of relationships of opportunities for intrapersonal and interpersonal interactions which determine the velocity of knowledge generation, flow and behavior change was thus emerging. This kind of arrangement can be called a web of entities, a plotting as well as an account of relations within, between and among entities that foster mutual benefits, and therefore increases a network’s resilience (Kadushin, 2004). Both GKI novices and experts ably expressed a clear appreciation of such connections between

their work with GKI and their everyday and future workings. A GKI student,

Master 1, noted that:

I am the major beneficiary of this process and the benefits are crosscutting because I will earn a paper and that paper in Zambia is a negotiation tool. It will be used probably to increase or better my salary or something. But before that, my study is interlocked with community aspirations because I am not just researching in the community. I am an intermediary between GKI and the community. I may successfully develop a project with my community and I will give feedback to GKI which improves their curriculum and at the same time my workplace will have in me a well networked, knowledgeable employee, and the community will have a voice.

Another GKI student, this time an undergraduate, Chongwe 2, expressed this interconnection as follows:

Everyone who will come into contact with me will really benefit starting with everyone at my workplace, Chongwe Secondary. My way of thinking and the way of thinking of my other colleagues will really impact the whole school because we now have this idea of looking at education in a different way. Apart from our own classes, we will share our views in staff meetings with other teachers and administrators. I do not think our manner of engagement with our colleagues and issues will be the same now. We will transmit the knowledge that we've acquired to them, they'll also learn it and am sure they may also transmit it to others, their pupils. The pupils will pass it on to their friends at school, at home and wherever they go in their lives. It is a chain effect. Slowly but surely it will diffuse through the communities to all parts of the country. I feel the whole nation at large will transform with time.

In similar terms, GKI Staff 5 argued that

...to imagine that you can do a social experiment where you and your environment are not being part of the experiment but simply an observer and laboratory respectively is something impractical. All of you as entities are part of the experiment, watching others evolve and you evolving too. As a "number person", I see this as a revolutionary evolution process where everything counts and thus everybody is a

beneficiary in the learning process. We are seeing a blossoming of people. They are growing and their growth is ours and vice versa. So, the students are the beneficiaries of the process, the whole community and the entire social structure benefits from the process. It is not an individual process. It is a socially constructed process, a Venn diagram with GKI in the intersection of everybody all are interconnected in this universal set of relationships.

UNZA Professor 1 agreed with GKI Staff 5's point of view saying:

Some GKI activities directly add value to my mainstream work, for example, from a practical point of view, the GKI international workshop that we had, that is something that my employers expect me to do including the community work that I do for GKI. I know that there are no specific guidelines for my role at GKI, my roles change all the time, but to explain this to my employers, I have to find a way of presenting what I do in terms that they can understand before they start imagining that perhaps I am making extra money. But am certain that later they'll see the community results we are facilitating with GKI and this will fully explain why we are here.

Innovativeness

GKI is facilitating an emergence of new and novel behaviors that are enhancing the capability of its networks to adapt successfully to their surroundings. For example, GKI launched an application that gave GKI, the schools and communities the ability to record and share the narratives, videos and pictures of community incidences of particular issues of interest. The goal is to capture trends overtime which can inform policy and practice from bottom up. This production and integration of local knowledge and behaviors into conventional knowledge systems is a recipe for innovation. The application is installed on tablets which are given to teachers – students at GKI – as part of the learning tools integrated in their learning activities in schools and communities.

These teachers work with their pupils, school administrators and community groups. At school level, there is a data server connected through the internet to a GKI global data server, wherefrom the entire GKI Network Learnovation accesses the data for analysis. This process is one of the things GKI Network Learnovation members are appreciating as an innovation marker encouraging them to be more creative. SNU Professor 1 noted that

The GKI has been a sharing environment for me and given me a platform to be more creative because I haven't really been using much of my creativity. You know in these institutions we work, you find that your environment does not allow you to just try to use some of these things with students. Even more, the students themselves are rigid, your fellow staff, the curriculum expectations, almost the whole system is somewhat closed. The GKI environment is flexible. And also in terms of how we engage communities, I think it has gotten me thinking because who would have thought from the heart of Africa the use of internet technology to gather data would work better than the way it is done with paper? We are yet to prove this at a broader scale but now I know that it can be done.

Similarly, GSU Professor 2 pointed out that

Attending a traditional university is more like a power journey where the higher you go the more powerful you become. GKI is toppling this mountain structure by empowering the bottom in a more creative way. As a professional educator working in a traditional university system, I have to be fluid and this continuous movement between the two systems is making me to be more creative in negotiating my way especially when I go back to Georgia, I will have to work within the system until I retire or get fired, one of the two. We have had our battles, doing what we can underneath the current power structure but still it is not easy.

In appreciation of the creativity and innovation GKI is focused on, Chongwe 2 said:

Believe me, my lessons will not be the same. I now know that even without visible physical or detectable mental challenges, learners may have special needs, special abilities that have to be considered in my class. I don't just have to go there and teach, talk, and get out as if there is one single person in class. I need to closely consider each learner. Of course I have massive classes. But it will be different. If only we had maybe more or all universities using this method or the methods that are being used by GKI. I feel like am going to explode with my creativity now not because I was not creative before. My options have been widened. I know that there is so much that I can do within my class, my classes, my school, my community. And I just feel like I have that chance actually to do different kind of things and make real difference. I have already started encouraging people to join and I will definitely continue doing that because I feel like this is something that should not be limited, it's something that everyone must benefit from, because it's going to change our learning system or our education system, and that will obviously give us better results than we are having today. When you look at most of the reasons why our pupils are not performing very well today, it's because they find our lessons very boring, they find the education system may be very restrictive, unrelated to their real community life, not allowing them to explore and learn things on their own. They have to follow a particular way of schooling, a particular curriculum which is not a bad thing but because it's restricting them, they learn not to think outside that curriculum box. They actually learn how to reject it.

A GKI student, Chibombo 2, argued that:

This program with GKI will definitely take me to greater heights. My thinking continues to be enhanced and I am beginning to think of bigger and better projects. I feel by the end of the program I might graduate from being just a teacher in a classroom to something more that will be more influential. I may be part of those people who will be making big decisions for change in our education system in Zambia. Having started this program, I feel I'll be able to contribute positively by introducing new ideas, new ways of doing things, new ways of learning in Zambia; incorporating the technology in community learning. GKI to me is an institution that wants to see change. It has pinpointed the problem and now it's looking for solutions, collective strategic and sustainable solutions. And I am happily here as a part of that search. This search is changing my view

of university education. My learning at GKI is different from the way I did my very first degree. It is very, very different and my line of thinking has changed. I can't compare the two anyway. I do feel like I have more room to be creative because am not being limited to my line of thinking or anybody's thinking. It is critiquing and merging different perspectives into something mind blowing. I look forward to my further journey with GKI. I feel it will be a great experience. I would love to encourage others to participate in GKI because I want them to change their view of life, to expand their horizons because some people have just been boxed up into thinking that whatever they have is the best when there is in fact nothing to learn from that.

The GKI Staff 1 pointed out what he thought was at the crux of this mushrooming creativity. He explained that:

You know when I think of our first meeting in Zambia, I think it is the power of the minds of people sitting around a table with a willingness to think critically, and outside of the box that is driving this. I mean it is a challenge for me to think things different but being a part of this group, in terms of how you tackle and resolve certain issues in the world, not just in Zambia, it has put me in a certain position to think about things in a totally different way. I guess the ideology part of it, the theory part of it and seeing it working in reality is just life changing. This time that we spent together over the last three-five days in the schools, I could see that our students found a chance to critically think different. Let us hope that the students continue to think creatively, keep the mission, the vision, realign curriculum to local needs of the schools and communities.

Inclusiveness

The “power of the minds of people sitting around a table with a willingness to think critically” and “the engagement of teachers and schools” to which GKI Staff 1 attributed the emerging innovation in the above quote evidences an important characteristic of GKI: inclusiveness. There is participation and engagement of everyone's behavior and ideas. Each participant has the freedom, and shares equal opportunities, to be and to associate. This

participation and engagement is both vertically and horizontally integrated, involving everyone in various but respective contexts. Inclusiveness ensures that everyone, as opposed to just a select few, innovates. No one is reduced to a submissive knowledge consumer. The evolution of GKI ideas thus enjoys equitability and quality of communication and engagement around, within and between all participants as GKI Staff 4 noted:

GKI is a local and at the same time global philosophy. We have got friends in Africa, we have got friends in Asia, we have got colleagues and friends in the US and all these introduced me to further other people. I have been made to work with people that I never thought I could meet. The kind of knowledge I have acquired from all of these networks is immense and the value this brings is also immense. This is what I mean when say I wouldn't be doing this if it wasn't rewarding. I mean we all put in something and we get something back out of it. Now what do we get, certainly not money at this point. For me it is about what we can do to capture local knowledge and recreate global knowledge, because knowledge is power. It can be any kind of knowledge, everybody's ideas has a place unlike when we talk about traditional academic knowledge where only certain ideas matter and you have to continue referencing them.

Heterogeneousness

In the above quote, the presence of “friends” in Africa, Asia and North America GKI Staff 4 mentioned reveals that the inclusiveness of GKI is enriched by the diversity – heterogeneousness – of people and things involved, including but not limited to race, culture, ideas, environment, habitats and infrastructure.

The GSU Professor 2 noted that

In GKI I have learned an awful lot about knowledge and I am always shaken up. I am a therapist so I get it, I mean I get the process, the social process. And I get to learn a lot more about myself. I've

learned that even though am white, it's important for people to be able to talk to me and ask me questions of this "whiteness" and I should be comfortable and be able to say what it is realistically. And so, it is very interesting to be the minority. Not that it is the first time. But being a minority away from your "comfort zone" is something. This changes the process as you work with others and you begin to see things. It is also not a great feeling to know that your ancestors are the ones who trampled on the culture of others: colonialism and all that, you know, it's not comfortable. It hurts sometimes like saying the current Germans are responsible for Hitler's deeds, the Jewish holocaust. Maybe they are, maybe in some way I am, and that is why I feel compelled to do something. That is one of the reasons why I want to do this work and like to talk to people, African people, Asian people. We talk about it, all of this, the race issues, accessibility and conflict. This teaches us more, we open more and trust more rather than being indifferent.

Coexistence and plurality of ideas – richness in diversity – was an integral part and driver of GKI. There was ethno-diversity and diversified intellectual ethnographies that were fuelling the learning system. Lynn Ilon intimated that

We have a growing network of teachers, lecturers, professors, administrators, policy makers and experts in education, economics, business, engineering, technology, medicine and design just to mention a few. These people have lectured, managed development, business and educational related projects, researched and consulted in over 30 countries and therefore they have experience that covers many aspects of social transformation including agriculture, education, health, Information and Communication Technologies (ICTs), monitoring and evaluation, human development, poverty, social impact assessment, environment and climate, social security and vulnerability assessment, and water and sanitation among others. Some have worked on various projects for the World Bank, World Vision, World Health Organization, World Food Program, the United Nations and its agencies, the U.S. Agency for International Development, Department for International Development (UK), the Asian Development Bank, the African Development Bank, several national governments and their agencies, foundations and several local and global NGOs. At the moment we have funding from Korea Republic's National Research Foundation. Furthermore they have

lived in various parts of the world both in low and high income communities including various countries in Africa, Europe, the Middle East, Pacific Islands, North America, South and East Asia.

It is such a knowledge-rich team linking students, schools, universities and communities in Zambia that constituted the GKI endogenous learning system. And this system clearly has an inert or organic origin, not just in the context of Zambia, but the individuals involved. This develops GKI capacity, enabling it to grow organically and adaptively.

Organic Adaptive growth

The organic nature and adaptive growth of GKI was manifesting as self-organized formation of learning at individual and collective levels to deal with both internal and external environmental dynamics. While there was a professor who coordinated the course progression, for example, the students managed their own learning because the course content was given to them, and they interacted with it in their own time and spaces. In fact, if there was anything more that the course coordinators managed, it was tracking the learning patterns manifested. The learning patterns were utterly emergent and predisposed to making new knowledge. For example, when students and communities worked together, their responses to the environment that this interaction created, produced new knowledge. The new knowledge was then integrated into GKI's curriculum. This integration made the learning system manage to respond favorably to new experiences and new conditions, thereby ably adapting to the local and global

surroundings. When reality changes, new knowledge is yet again re-produced and integrated in response. This is typical of complex adaptive systems.

Complex adaptive systems are complex, self-organizing, adaptive, dynamic and co-evolving systems (Cleveland, 1994; McElroy, 2003; Johnson, 2007). Complexity means they have many parts interacting with each other in many different ways. Self-organizing means they are an emergent entity, they spontaneously emerge, without being designed from the outside (in contrast to a machine and some other human systems), and you cannot determine the shape of the system from the characteristics of the elements (just as knowing the characteristics of bricks doesn't tell you whether they will be used to build a wall or a cathedral). Adaptive (adapting and learning) means that they change their behavior based on lived experience. They have the ability to conserve, process and create information. Thus, they adapt to new relationships with the environment. They manifest basic elements of a learning process. Dynamic means that they maintain stability in the midst of fluctuations, but are sensitive enough to external changes that they can undergo rapid and unpredictable periods of change or transformations as they adjust to internal and external fluctuations. Co-evolving entails their character of being able to evolve together with the systems that they interact with. They both change and are changed by their environment – co-evolve (Cleveland, 1994; McElroy, 2003; Johnson, 2007). Accordingly, an endogenous university system is a complex adaptive system.

Access to knowledge and people over money

This motif is a drive towards access to networks of people and knowledge, more than money. There is a growing understanding that access to networks of people and knowledge is the most effective way of integrating and interfacing local and global expertise to foster advances in sustainability research and other key multidisciplinary challenges (Omolowa, 2000; Norgaard, 2004; Fine 2008; Gnyawali & Park, 2011; Ilon, 2014). Once this is achieved, then, resources, like money, pour in easily, but you can nonetheless have money fail to advance sustainability and collective solutions to global challenges. Lack and limited access to networks of people and ideas, as well as the tendency to marginalize selected networks of people and ideas, is one of the most harmful blockades to sustainability and human progress. It was therefore a prevalent argument among people involved in GKI that their involvement was not informed by anything but learning, and the contribution and reward of knowledge and access to networks of people from diverse backgrounds. GKI Staff 1 said that

I find this work very rewarding, the interaction with students, because you get to see students with quite a limited understanding of issues change from the way they were mentally thinking to a bit more sophisticated kind of thinking. I like statistics and the way that mathematical thinking is transforming the logical thinking of our students from a degree kind of thinking to progressively masters kind of reasoning. They will be experts in their own right and this is giving me satisfaction. I am also learning from these students as much as I learn from my colleagues. My exposure when I went South Korea gave me a lot of insight into how they, how their people live and how the developed world lives. I've been to other countries as well but South Korea for me was one of the highs of this year, the work culture, dedication and eloquence of service, wow!

SNU Professor 1 believed that his expert contribution to and reward from GKI were the same, that is, “conceptual understanding to see how we can make these GKI concepts work chiefly in lines of knowledge and evolution in practice to avoid slipshod.” This was along the same lines UNZA Professor 2 indicated:

I would say highly knowledge, my motivation for joining GKI were knowledge based. Even if right now I am not so much involved in interacting with the courses and students, I am always called upon to discuss the local GKI framework seeing how we can make it work better. These discussions give me learning points. I believe so much that I need to learn because it may not only be GKI that am going to interact with. Actually we were discussing that at high school level there is a lot that can be done just like at kindergarten level we could be able to do a lot. Much of it you realize it is chiefly knowledge based. I am failing to actually attribute it to a lot of other things because of I really like it when I get something then I use it and knowledge in almost all cases is never useless.

Chongwe 5, the student in GKI’s undergraduate program argued that

As a student you can, we can, and I can learn a lot of concepts and different methods but then if I do not disseminate or share what I learn with the others, it’s kind of just remains out there hanging. So my role would be to disseminate or to share that which I learn with my students, my fellow teachers and those that are around me, that is, my community because I think that what am learning goes beyond people within school walls. My expanded view now through this program actually breaks the walls, it’s about me sharing with the others, collaborating and ensuring that we have a better way of getting and creating information and knowledge in our society, a better way of learning and at the end of the day we improve and develop. There are other benefits beyond the knowledge. Since we shall be the first people, I think we shall be needed in all areas concerning maybe workshops, concerning teacher education, motivational talks and so on. It is still knowledge sharing but for such will obviously be paid money. The society I think will look at me as a resource person, as someone who can assist in the system, someone who has the knowledge, a person they can trust and entrust

to help in solving problems. They will trust me because they will see that what is being done is not just getting information, but it's getting information which must be used for the benefit of the society as whole.

Summary

There was a convergence of ideas and views among research participants suggesting that these motifs underlie the efficaciousness of GKI's university system. The motifs emphasize the fact that humans and their socio-cultural and environmental contexts are what they are because they interact with each other. The sustainability of any system depends on this connection and how it is locally contextualized and globally linked. This is because whatever is and becomes of a given people and their communities requires place-based knowledge that is inherited or accumulated through actively interacting in daily activities with themselves in a specific geographical area over time, and this interaction impacts and is impacted by the world outside, the global. Even more, these motifs answer a very troubling question of what is in an endogenous system that makes it sustainable, regardless of creed or context. The answer is found in their presentation of sustainability as a process, in fact, a social process that continuously creates, evaluates and adapts new knowledge. This view of sustainability explain how an endogenous university system conceives learning very differently from an "industrial university" that is shaped by the human capital theory thinking. The human capital theory holds that the goal of learning is to increase the productivity of individuals by enhancing the quality of their

labor. Individuals with improved skills then privately benefit by this increased productivity through their ability to attract increased incomes throughout the remainder of their working lives. The society also benefits because the increased individual productivity raises the productivity of the society and income of the country, which stimulates economic growth. As already argued, the endogenous approach, without completely dismissing the economic growth thinking, looks at other non-economic imperatives that create a sustainable and satisfied society. This means that GKI learning is conceived and approached in ways different from the human capital thinking. The new thinking evidenced by GKI conceives learning as a networked process that has at its core ownership, interconnectedness, innovativeness, inclusiveness, heterogeneousness, organic adaptive growth and access to knowledge and networks of people. It is these elements that fully define an endogenous university education system.

Chapter 9: Conclusions

The Global Knowledge Institute (GKI) began from the premise that an endogenous university education system is possible and sustainable within the context of Africa generally, and Zambia specifically. GKI derived its design from the two elements that constitute the endogenous theory – knowledge as currency and multiple knowledges. These two elements lead to the sustainability of a system by fostering institutional viability and capability to contribute to social transformation. It is either the lack, or underutilization, of the principles inherent in these endogenous elements that is making university education systems in Africa unsustainable. Instead of using principles of knowledge as currency, they use money, and instead of multiple knowledges, they use a single paradigm of knowledge that is foreign to Africa. GKI's design juxtaposed the two elements of the endogenous theory, using two aspects: Economic and Institutional Strategy, and Research and Learning Strategy. The two strategies are functional on the ground as Network Learnovation and the Graduate Learning System. Their functionality reveal that an endogenous system is one that is locally manifested and globally linked. A system that is locally manifested is locally owned – not necessarily locally derived, as all cultures borrow from each other and adapt. Whatever the process or product, a university education system ought to have local ownership and be instigated to active action by and through local knowledge, need and the lived experiences of local people. As it is

instigated, such a system is networked beyond its immediate environment, that is, globally linked, to interface with multiple knowledges from different cultures and diverse intellectual epistemologies. This gives the system organic resilience to adapt both to local and global conditions, hence it is sustainable.

In a world increasingly pressured by contagious issues such as terrorism, global warming, disease, immigration, and their equivalents, the GKI demonstrates that it is possible to develop and have such a system built from, and that strengthens, the organic resilient power of local communities anywhere in the world. A system developed in this manner is the sure way to global sustainability.

In recent years, whenever tragic events have taken place, such as the Rwandan genocide (1994), the Haitian earthquake (2011), terrorist attacks by Nigeria's Boko Haram (2014-2015), Bombing of the twin towers (2011), China's Severe Acute Respiratory Syndrome (SARs) outbreak (2002) or Sierra Leone's Ebola plague (2014), focus has been on how global organizations such as the United Nations or World Health Organization and "super powers" like the United States and Britain have responded. The debate has, on one side, been blaming them for their ineffective responses and, on the other side, created conspiracy theories that allegedly see such institutions and governments as originators and perpetrators of these tragedies. Whichever of these two sides we may choose to take misses the point. This is because either side takes away the

power and responsibility from the communities concerned. Both sides place the destiny of local communities in the hands of external forces. There is an underlying assumption that affected local communities lack the systems and power to drive their own destiny. The obsession with feeling superior, well equipped and more knowledgeable than others and, on that basis, to justify our self-made natural and moral right to intervene in the internal matters of others deemed uneducated, unsophisticated and backward continues to overshadow our policies and practices at different levels, as far as development and global sustainability is concerned. We still live in an “Animal Farm” world where certain knowledge groups of people “are more equal than others”. This is why debates on the ongoing Ebola crisis, for example, are advocating for nothing but surveillance and “expert” deployment of systems that are developed and controlled from elsewhere, outside affected communities or places where the disease might potentially break out or go next. There is hardly any talk about looking into local social systems, how they weave into a global web and can be strengthened to ensure power is built at the bottom with locals taking charge and care of their own. A look into local social systems is important because what is categorically clear is that it is not in poor communities where there are no working systems. It is at the global level where there is no working system within which individuals and collectives focus their efforts on an equal footing, a system

in which lived experiences and knowledge of all participants is the focus, and is accordingly valued.

It is within this framework that I did not conceptualize sustainability of university education systems as merely institutional viability (raising and meeting of performance standards) and the knowledge (multiple knowledges) on which such systems are founded being the bedrock of social transformation. I explored sustainability as a social process marked by ownership, interconnectedness, innovativeness, inclusiveness, heterogeneousness, organic adaptive growth and access to knowledge and networks of people. Such a process dissolves the mortal and brick bureaucratic institutions into a virtual network that allows research and learning to be lived daily experiences unconfined to a room, or a place, but which happens anywhere, moves, and grows as people work in their communities. The dissolution brings about shifts in discourse and practice on six key areas of university education: capital, value, assessment, knowledge sharing, staffing and access. The shifts were shown across the chapters and I coalesce them below.

Capital, the shift is from physical capital to social capital. The GKI design shows that learning should not be about having permanent closed access to standardized resources such as university campus buildings that are often disconnected from local networks of individual persons, households, businesses and organizations. The focus should be on access to people, the dynamic

resources incorporated in the local and global networks of individual persons, households, communities, businesses and institutions. This shift solves the problem of physical infrastructure and enrolment capacities. The GKI's connection of its learning to community facilities such as secondary schools, community halls, homes, cafes and organizational resource centers generates unlimited learning spaces that expand organically and are situated in people's everyday way of life, as opposed to fixed classroom buildings and furniture strictly meant for bookish learning. Instead of mimicking social environments in a classroom, you pursue learning in the actual situations and contexts. This did not mean GKI not having its own learning center, but the center mainly served as a learning launcher and drop in place for discussions and intellectual mingling. Also, there are basic things, the "you must know kind of stuff", that require face-to-face interaction, but even then the teacher or learner roles change and are fungible. Integrating learning into community spaces also contribute to the process of curriculum localization to address the challenge of irrelevant curriculum. This is because learning becomes located and community interaction makes content generation and explorations evolve out of real lived experiences. The challenge to this shift facing GKI in Zambia is the local expectation that a university ought to have a campus – physical presence.

The next shift is on value, that is, the importance that is placed on an individual or a group being enrolled and incorporated into the university

education system. In traditional universities, while there is a claim that students are necessary human capital for the advancement of society, it is only upon payment of tuition and other user fees that students are allowed to attend classes. This means that the ultimate evaluation question for enrolment into the university is: “do you have the money to pay?” In fact, in some institutions, students are required to first show that they have a particular bank balance in their bank account, and a reliable source of funding before they can be considered for study. If tuition is this fundamental to university education, academic excellence is then not the goal of universities. The GKI design brings a shift to this reality by fostering value not based on tuition but on learners’ capabilities to create new knowledge and innovative solutions that society as a whole needs for sustainability and competitiveness. The value of knowledge co-creation has hardly been espoused as something worth more than tuition for student enrolment. This is partly because knowledge has been known to come from the top, the professors, who pour it into the learners and make students regurgitate it, and then get graded and certified depending on how receptive they were and whether or not they parroted the teacher very well. This made, and still is making, test scores and certificates more important than the processes of learning and social innovation. GKI takes a different path by making learning tuition free. This pushes higher education to start trading in the value of knowledge and innovation as a replacement for tuition fees. This has

transformative implications for assessment systems, both at individual and institutional levels.

At the level of the individual, learners begin to be treated as knowledge co-creators, the practice of assessment changes through the removal of assessment from the often intimidating and all-knowing hands of lecturers to learning spaces of learners. Current assessment procedures are generally designed to look through the lenses of what currently exists in order to assess what might be in the future. In this way, they tend to be reproductive in nature, that is, they ensure and verify that learners see the world today as it was seen yesterday. Coupled with constraining evaluation schedules, this restricts new ways of seeing, creativity and spontaneity of thought, thereby undoing the same learning that the same assessment seeks to measure. This means higher education assessment moves to group assessments, collaborated theses and dissertations that solve complex problems.

Further, on assessment, we can establish that from the perspective of learners, being knowledge co-creators, assessment starts becoming an act performed by the learners, based on their lived learning experiences, rather than performed on them. Learners take responsibility for their own learning by developing skills of learning how to learn, unlearn and relearn from “multiple knowledges” and track that process themselves. This, among other things, help learners to accumulate continuous assessment in terms of learning trends from

self (reflexivity) and self-solicited feedback (reflections and refractions) from fellow learners, field experts and other actors in the learning ecosystem. This is part of the capability and competence building processes required to meet the future learning needs of a lifelong learning society in which “learning is work” and that “work is learning”. This shift solves the problem of graduating theoretical giants who are “practical dwarfs” – not well rounded graduates who are good at both theory and practice.

The implication of the shift from compulsory tuition to tuition free education that values learners for their knowledge and co-creating knowledge capabilities has institutional implications, in terms of knowledge generation and sharing. Currently, knowledge databases of various institutions remain closed and restricted. This is changing, and some institutions, such as the World Bank, have given open access to their databases. But leading academic databases are still closed, and exchange of academic materials, publications and other scientific information in the area of library services still requires universities to spend huge sums of money for subscriptions. This has made the academic and research communication environment restrictive, discriminatory and fiscally unsustainable. The restrictiveness meted out on knowledge data bases is largely a result of the view of universities as knowledge consumers (buyers), which, in the process, discriminates against the poor, who cannot buy access to such stored “knowledge.” If “information is power and capital is said to flow according to

how information flows” then, in truth, the poor are denied that capital and power right from their schools. This is because their schools can’t access cutting edge research. If such “poor universities” are engaged in worldwide collaborative knowledge generating processes, this denial of the right to information, as well as knowledge discrimination against the poor could be solved. Low-resourced countries like Zambia would begin to appear on the global knowledge maps. Innovations and refinement of ideas would be enriched, as both access to databases (global knowledge) and to local knowledge in communities would be open and creatively integrated. Instead of depleting the value of databases, as is currently assumed, the linked knowledge generation processes would create more social value.

One of the major problems of universities in Africa and Zambia, in particular, is recruitment and retention of staffing and management. The main cause of this is that the dissatisfaction of talented people caused several socioeconomic and political factors in their local contexts. The result of this is a brain drain and its consequent ramifications on their systems. Focusing learning on knowledge and innovation changes our view of brain drain. This is because brain drain would become transformed into brain networking. GKI’s Network Learnovation demonstrates this reality shift. The shift entails a change of focus: from how to restrict, contain and attract the talented brains in and from particular countries to how talented brains can collaborate at the local and global levels to

build innovative solutions, regardless of where they are. Advancements in technology are making collaborations possible across institutional and geographical borders. It is noteworthy that much of the ongoing debate on brain networking has focused on networks linking diaspora citizens with their home countries. GKI's Network Learnovation takes the debate a step further. It does not focus on nationality, but humanity, that is, the problems that affect us all as a planet. Thus, diverse expertise of individuals and institutions across the globe are connected and networked based on shared interests and needs. This has enabled GKI, Zambia, to solve the problem of understaffing and how to access leading scholars in different fields for its graduate learning. Also, it has managed to capture Zambian brains at home and abroad through this network. The impact this has on the quality of the curriculum and learning system's performance is tremendous. Nonetheless, the main challenges to this arrangement, in the context of Zambia, were technology and issues of incentives. The locally and globally based experts and students could not interact as often and effectively as they want, due to poor internet connectivity. Also, locally, there was low local participation by intellectuals because the majority still need incentives, in the form of money. Nonetheless, brain networking works and can work even better. The two GKI programs currently running were born out of this, and are being administered through this process.

The focus on networking brains also changes the culture of management from hierarchy and command to “wirearchy”. Wirearchy focuses on issues as they emerge and work on how best to channel time, energy, authority and resources into generating and trying out collective ideas and the possibilities in those ideas of how to address issues of concern. Just like issues are emergent, the approaches to tackling them are emergent too. This removes the old aged “cook book attitude” that makes people want to solve challenges of today like it was yesterday, as if contexts and people are duplicates, one of another. Also, it means, much as one may be an overall leader, they are not a leader in everything. Every person has a limitation. Accepting this fact creates a chance for each individual in the system to be given the opportunity to lead in their area of the strength. This means that the gifts and creative powers of originality of every member to advance the progress of the system are left undeveloped and underutilized. In the result, a system is given the dynamism of the diversity it embodies through the people involved. It is this management style that the findings showed that GKI is employing.

The shifts above undoubtedly increase access and wider participation in higher education for four reasons. Firstly, tuition fees that prevent many students from attending university are removed. Secondly, the separation of university systems and communities is bridged. Thirdly, the location and affiliation of the person no longer determine their participation, but their availability virtually or

physically, synchronously or asynchronously. Fourthly, assessments become collaborative. They stop being individualized and marred by both psychological and social loneliness and the emotional roller-coaster that comes with solitary research, and having the sole responsibility of the outcome to fulfil a particular requirement and not necessarily to solve a problem. Lastly, management no longer is a reserve of a particular class of individuals who issue commands from the top. It becomes networked, participatory and focused on solving problems, not optimizing the power of portfolios and their boundaries.

This kind of systemic and systematic paradigm shift for university education in Africa that GKI embodies may be viewed by some as a threat to existing universities, whose undesirable status core has been institutionalized and turned into a reliable source of survival, power and prestige for what Ngugi wa Thiong'o calls "a battlefield on which is fought a continuous war between the forces that are pledged to confirm our humanity and those determined to dismantle it; those who strive to build a protective wall around it, and those who wish to pull it down; those who seek to mould it and those committed to breaking it up; those who aim to open our eyes, to make us see the light and look to tomorrow and those who wish to lull us into closing our eyes" (2013). I personally see this transformation of the GKI idea as one of the sources of necessary tools to end this battle of forces and "keep our eyes open to see the light and look to tomorrow". Suffice to say that GKI, without the same

traditional university systems, cannot survive. At the same time, without raising institutions like GKI, the current universities will not transform. The relationship between the two should thus be understood as an adaptive transformation: organic, locally owned and globally interconnected, inclusive, heterogeneous and innovative – “building a bridge before burning a bridge”. I wish to stress here that the shifts observable in the endogenous framework I have discussed herein are a necessity for Africa in general, and Zambia in particular.

I firmly believe that the current way universities in contemporary Africa are designed will not foster the social transformation that Africans and African communities urgently require even if they, university education systems in Africa, manage to maintain the standards of western universities, and now Asian, after which they continue to seek to be modelled. The fact that the continent is not as safe and sustainable today as it was centuries ago when such universities were non-existent testifies to the fact that the flourishing of these universities, advancement in foreign knowledge and culture within Africa, will never translate into parity in social conditions. This is because, quite naturally, those who own and control the knowledge upon which foundations of such systems are based hold the destiny of anything built on top of such foundations, and are more likely to seek to obtain more related power and survival advantages. They will seek to garner a larger share of resources and control, whether as individuals or as cultures. To think, as many seem to, that universities in Africa in their current

configuration once handsomely financed and managed to the standards of western global rankings of universities will automatically help to reverse their unsustainability is to be a victim of fundamental misinformation. I call it “fundamental misinformation” because history categorically shows that the agenda of nations wherefrom the current systems we are using in Africa were borrowed has never been to develop Africa and the Africans, and that agenda has not changed socially, economically and politically.

Socially, the agenda remains to be the enslavement of an African and his home, Africa, a destination for leisure and recreation (in the name of tourism). The enslavement of an African is no longer overt at physical level, but at mental and spiritual levels. The African minds and spirits are still enslaved and this is achieved by displacing African languages with European, and now Asian, languages, and destroying indigenous African spiritual systems using foreign religions. This has been the agenda on the social front since time immemorial, as Macaulay aptly highlighted in his 1835 “Minute on Education” speech, in which he observed among other issues, which I will show in the discussion of the foreign political and economic agenda for Africa, that it was hard to find a person who is a beggar across native communities. Such wealth, high moral values and caliber of people would never be conquered unless the very backbone of their communities, that is, their spiritual and cultural heritage, was broken and replaced by European, language, history and culture in ways that would make the

natives think that all that is foreign is good and greater than their own. In this way, they would lose their self-esteem, their indigenous self-culture, and they would become what the new education order must ensure that they will always be, a truly dominated people.

Economically, the agenda remains clear as well: Africa should be a market and source of raw materials and cheap labor. Having helped to consolidate the American and European industrialization through slavery and slave trade, Africans were turned into consumers of the products from foreign industries, and Africa was seen as a source of raw materials to be fed into those industries. This, as well, was to be achieved through the education systems which were designed to ensure that they give knowledge without awakening ambition to industrialize. And should it happen that such an ambition is awakened, it should never be given legitimate vent. One does not need to dig deeper into history before finding evidence of this agenda. Let us take the Zimbabwean land reform issue, for example. There are facts and questions that the mainstream media does emphasize regarding the land reforms in Zimbabwe. Firstly, that historically, the white farmers had no legitimate claim to the land they were occupying because it was robbed from the owners, the Zimbabweans, by colonial authorities in Zimbabwe. Secondly, that despite this unacceptable historical occurrence, Zimbabwe and Zimbabweans were civil enough at the attainment of their independence in 1980 to enter into a Lancaster House

agreement with “the invaders” to facilitate a gradual redistribution of the land. Thirdly, that Britain breached the terms of this agreement. Yet, Zimbabwe and Zimbabweans were tolerant for years trying to get Britain to correct its misdeed. When it was clear that Britain was no longer ready to honor the Lancaster House agreement, Zimbabweans decided to do what was honorable for themselves as a people: take back their own land. Today, Zimbabwe and Zimbabweans are being punished, suffering the consequences of economic sanctions from Europe and America, for claiming back what is rightfully theirs. The question is, why punish Zimbabweans for claiming back their land from which they had been illegitimately dispossessed? It is because the Zimbabwe land reform offended Europe and America. In the eyes of European and North American countries, Zimbabwe had set a “bad example” – not bad in terms of the people of Zimbabwe, but those of Europe and America – who do not want anybody else in Africa and the rest of the world to follow, that is, challenging or outright undoing the colonial and neocolonial economic hegemony (Mbeki, 2003). Also, the Zimbabwean land is not just fertile in terms of agriculture. Zimbabwe is rich in gold and diamonds. In 2013 it was estimated that Zimbabwe would “in a few years account for 25 percent of world production of diamonds” (The Editorial Staff, 2014).

On the political front, the agenda for Africa of foreign forces has not changed either since the 1884 Berlin Conference, during which European

countries carved Africa up and appropriated its territories among themselves. This divide and rule agenda is still the norm. The manner in which democracy and human rights issues are being promoted in Africa by Europe and America gives anybody the evidence to legitimize this argument. Let us begin by considering the example of Zimbabwe, particularly its 2013 presidential general elections. Both the African Union (AU) and Southern African Development Community (SADC) declared the elections as credible, free, and fair, and that they represented the views and will of the people of Zimbabwe. But European and North American nations declared these elections not free and fair. The question is: on what basis did the voices from Washington, London and Brussels call the elections not free and fair when reliable and legitimate representative organizations of Africa, the AU and SADC, had said that despite observable problems, the elections were free and fair (Mbeki, 2003)? Does this mean these African organizations do not know what constitutes a free and fair election? Another example is the International Criminal Court (ICC), which was established in July 2002.

By October 2007, the ICC prosecutor, Luis Moreno-Ocampo had received 2,889 communications about alleged war crimes and crimes against humanity in at least 139 countries, and yet by March 2009, the prosecutor had opened investigations into just four cases: Uganda, DR Congo, the Central African Republic, and Sudan Darfur. All of them in Africa! Thirteen public warrants of arrest have been issued, all against Africans (Akomolafe, 2009).

This makes one wonder whether or not Africa has a monopoly on crime. This offensive against Africa and Africans on the political front came to a climax in 2011, at the time of the brutal killing of the African leader Muammar Al Gaddafi in Libya at the hands of the North Atlantic Treaty Organisation (NATO), in support of “rebels”. While the AU and SADC were establishing mechanisms of dialogue to deal with the situation, the United States, Britain and France declared that the only solution to secure Libya’s integrity and sovereignty, and restore her economy and the security of her people was killing Gaddafi. They went ahead and bombed Gaddafi, thereby overriding the authority of the AU – a superintendent body of Africa and Africans. Battling with questions surrounding Libya and the killing of Gaddafi, one Zambian writer asked:

...who is a “dictator” and who defines him or her? Is it the ruled or the “international community”, or both? If it is the citizens, is it not their sole preserve and duty to abolish and replace a dictatorial regime? Who arrogates the power to define the other as a dictator? Accordingly, who arrogated the West the power to determine who is a dictator, and who is not, in Africa (and the rest of the world)? Where is the role of African agency in all this? Isn’t it possible that a fundamental policy or ideological differentiation between the West and an African government may lead to the latter’s leader being labelled a “dictator”? What happens when both the people of Libya and the West define Al Gathafi as a “dictator”, but for different reasons? The people, because of Al Gathafi’s iron-clad rule and repression, and the West, because it became politically expedient at a certain moment to abandon Al Gathafi as an ally (which he was for most of his reign despite his anti-imperialist overtones), and have him replaced with someone who would serve as a more stable puppet; how do we discern between these contesting definitions in order to avoid having to accept or reject both? (Sishuwa, 2011).

If one surveyed this agenda thoroughly, it would be clear to such a one why I do not agree with the idea that the socioeconomic and political systems currently being used in Africa are not “working” or have “failed”, together with the education systems being used to underwrite the replication and perpetration of these systems. As far as this agenda shows, they are working and delivering what they were intended to and designed to deliver. The “accusation” that they are not working or have failed results from an attempt to, or indeed an act of, using them for something they were, and are not originally intended and designed. They were designed to colonize, enslave, oppress, miseducate, emasculate and under-develop. Thus, they cannot liberate, conscientize, empower and transform. The most appropriate word to describe these systems is that they are not sustainable, they can no longer hold, if not for the fact that Africa and Africans are beginning to rise to the occasion to claim their economic independence, then for the fact that the world has become more interlinked and connected. It is therefore no longer practical and safe to dehumanize and under develop one part of the world in the hope that the poverty and disease that result from such tyranny would only affect that region alone. The recent outbreaks of Ebola that quickly affected the US without having affected the majority of African countries evidences this fact.

It is for this reason that I do not, by any means, argue for the “splendid isolation” of Africa and demonization of cultures foreign to Africa. It is my

belief that higher education, universities in contemporary Africa, as investigative machinery, stand a better chance today, than ever before, to be redesigned using African ways of knowing which originate from the homes and communities to begin a new page of harnessing the local potential of subsistence cultures by requisitioning local and indigenous knowledges and absorbing them into innovations that the local and native populations share and control. This will not only make African systems sustainable. It will give them global competitive advantage and capacity to contribute something new to the world.

Recommendations

The model of GKI suggests that if university education systems in Africa and Zambia need to be institutionally viable and manage to contribute to the transformation of society, they should be rethought using endogenous precepts. As opposed to studies that have focused more on the relationships within universities and between universities and the government in terms of control and funding, this shifts the debate to university-community relations and the social value of local knowledge within a global context. Funding, therefore, does not necessarily offer pathways to sustainability. Money is indeed needed, and governments should fund the universities. But the whole notion of funding needs rethinking. This demands that we should face a stubborn fact that, like governments in many African countries that are failing to fund universities adequately to be better learning centers, intellectuals from universities in Africa

have failed to help in the transformation of African communities. Like governments in Africa that position themselves away from and above the people they “allegedly” serve, universities and their graduates are not synchronized with the learning and resilient systems of communities, culture and family progress of local communities. Universities are “technocratized” where communities outside the “university world” are considered incapable of understanding the university’s technical complexities. Again, like politicians who claim there is no money to fund universities, while they, as public officials in higher elective and non-elective positions live luxurious lifestyles with large salaries and allowances, universities declare that “illiterate populations” are incapable of understanding university complexities, while their degrees and research are based on the study and knowledge of such “illiterate populations”. Further, the degrees and research of university graduates have failed to breakdown those same complexities into ways that are consistent with, and can support, the worldviews and perspectives of local knowledge systems to fundamentally address poor living conditions that characterize low resourced communities.

The failure of governments to adequately fund universities is not about non-availability of funds, but a lack of sincerity, political will, charismatic drives and sensitivity to the welfare of the nations. Similarly, the dysfunctional relationship between universities and local culture, as well as the lack of involvement by the intellectual networks with their local communities to build

locally bred and globally linked innovative solutions is a result of intellectual infidelity, lack of will, practical charisma, and sensitivity to the fate of the indigenous peoples and their communities. All of this results from miseducation.

I once wrote in my reflexive journal that:

I completed my undergraduate studies and about to earn my master's degree, yet I am not and have not been of help to my own people. I am becoming uncomfortable with my situation now. Although conscious of what people from the eastern Zambia say that "Ngulube idalira msampa utaninga,"⁵¹ now I am becoming powerless against this discomfort. My discomfort is born out of what I may term as "indoctrination of the African". If I had not reached the education level I am right now in this western education system, one would be justified in the current borrowed state of affairs to accuse me of ignorance, superstition or anything they prefer to say. But the truth is what I wish to stress here with unmistakable words. We, most of us, the "educated" Africans, have a problem. Our attitude towards our own people is that of contempt. You see, wrongs are forgivable. But contempt is punishable even by death because it injures the pride of the affected individual. Contempt is just bad and is consciously perpetrated. The root cause of our contempt as educated Africans is our education curricula. It is the curriculum creating this pathos. From elementary schools to university level, we are taught to admire what is foreign and to despise our own things and essence...The proudly called educated elites and their partners are, and have proved to be so, worthless to the betterment of our people. Many have fled away from the continent. Those within, the best they have proved to be is being agents of neo-colonialism and all the -isms and schisms perpetrating language death, extermination of African culture, waging biological warfare – infecting their own people with viruses under the camouflage of vaccines, natal experiments and killing animals and vegetation under rhetoric names of Green Revolution – a revolution that was a bi-product of excessive artillery production in the West.

⁵¹ Literally translated, this is: "The warthog cried when the trap was at its breaking point". It teaches resilience and patience owing to the fact that as humans, we often give up when the storm is almost over – last minutes are always dangerous.

I am not the only African intellectual uncomfortable with the position “educated Africans” are occupying in the scheme of progress for our continent. Ngugi wa Thion’o, a renowned Kenyan Thinker and poet, once wrote that today, just like in the colonial past, African communities are spaces “of confinement literally and metaphorically where people are living in the shadows of poverty, ignorance and disease even though they have done everything they can” to disentangle themselves from such social ills. Communities have done all they can to send their children to schools and universities at home and abroad in search of knowledge and skills which could transform the communities and “relieve them of these burdens but, lo and behold, each one of them comes back only speaking in tongues,” that is, completely alienated from their way of life.⁵²

The fight for the proper funding of university education, the transparent, efficient and democratic management of universities, must not lose sight of the total overhaul of colonially modelled systems of learning that dismiss vernacular epistemologies, yet must appropriate the socioeconomic value of local knowledge to advance and enrich oppressive systems, systems whose mathematical models and algorithms have nonetheless solved many of the world’s pressing problems. But many of those social ills were created in the first place by such models and algorithms and today, more than ever before, they are causing and failing to solve more problems, such as terrorism and global

⁵² See his chapter, ‘The interpreters: Writing, language and politics’ in Wylie and Bernth’s *Multiculturalism and Hybridity in African Literatures*.

warming. The reason why these failures and ill effects stem from good intentions is that these mathematical models and algorithms have what a Nobel Laureate, Friedrich Hayek called the “scientistic attitude and error” (Hayek, 1974). This is an attitude which is decidedly unscientific in the true sense of the word because it dismisses anything it cannot quantify. In the name of generalizability, it mechanically and uncritically applies patterns of thought derived from elsewhere to contexts different from those in which they were derived. The failure and unsustainability of well-funded development project models in all sectors across Africa evidence this fact that funding is not really the issue.

This is true for GKI. Its preoccupation and challenge should not be, and is not, money, as some participants suggested. If knowledge generates the value that money seeks to buy, then GKI already has cash. The question, then, is what knowledge does GKI have and can generate, and who wants that knowledge and the value it creates? That GKI is making higher education free and ensuring that such education is of high quality, meaning more young people over time will be enrolled into the system; that GKI is working with communities partnering with them in building sustainable solutions that involve attitudinal change, spurring a spiritual revolution that help them break away from dependency and fatalism to have faith in themselves and embrace challenge; the Zambian Government, Community Cooperatives, and Companies and Organizations will obviously be interested in being part of this social transformation. The job for GKI, then,

should be to design an “involvement framework” that defines the role of each of the institutions interested in being part of this transformative agenda, to suggest the way in which they can come in, and to explain how they will benefit from being involved. The coming in of such social agents like government means money coming in as well. Thus, the challenge of revenue GKI is currently facing, to me, is a momentary setback.

GKI also needs to realize that its bid for free higher education demands a huge intellectual mobilization strategy that can kindle and incentivize an enlightenment movement that sees and feels the need to have an educated society. Such a movement will require a huge sacrifice on the part of the intellectuals concerned. It is an intellectual force that should accept that it does not need to be paid to solve its own problems at the individual level, or that of community and country, but that solving the problem of illiteracy, passivity and despair is a sustainable payment that benefits present and future generations. The time for an intellectual movement of this kind in a country like Zambia is long overdue. Intellectuals in and outside the country must be mobilized, not so much in the rhetoric of community and country, but in terms of building from persons involved as individuals. I call it rhetoric because the notion of country and community has so much been used for ideological guidance, and not so much for personalized economic development. Thus, community and country in an era of individualism appeals to many people only on public platforms, and not so much

in their private lives. In their private life, they still optimize personal benefits with regard to anything they can lay their hands on. Rather than attacking this capitalistic tendency as undesirable, the challenge for GKI is to find ways of transforming the lost communal spirit into a resource for mobilization and a call to critical action. Lastly, if the agenda of GKI is mainly built on the value of local knowledge, it is only logical that its name should reflect this phenomenon. It should change its name to the Local Knowledge Institute (LOKIN), or indeed take on a name such as Ubuntu that reflects the philosophical, spiritual and cultural content and outlook of the Zambian context. Thus, the GKI becomes “Ubuntu University”.

Further Research

The scale of this study is only as extensive and multifaceted as the GKI design within its early development in the context of Zambia where it is being piloted is concerned. To generate achievable policy and theoretical strategies with regard to the practice of endogenous university education systems in Africa and Zambia, more action research oriented studies are needed at a broader scale. Such studies should would allow further assessment of local and global dimensions of the subject. Exploring the following as future research strategies can partly facilitate the attainment of this goal:

1. GKI-GRZ (Government Republic of Zambia) Teaching Commission Partnership

Promotional transfers or any other kind of transfer of a teacher on the GKI program impacts the GKI work with the school and community in negative ways. It would be necessary to establish ways in which GKI and the Teaching Commission can ensure that teachers enrolled with the GKI only get transferred and promoted outside the school they are at after completion of the program. The GKI program can also be used to attract teachers to particular areas, especially rural Zambia, where teachers are reluctant to go because of poor amenities, such as housing and energy.

2. A value based incentive system for higher education brain networking in low resourced environments.

While the Global Knowledge Institute design demonstrated that the global networking of experts and researchers is possible, there remains a serious gap, as regards establishing a clear and sustainable system of incentives for the resident, diaspora and international community talented brains to devote and commit to the cause of curriculum development and delivery, research and sharing of its results, taking responsibility for community technological resources and needs.

3. Community and government participation in bottom heavy wirearchy learning ecosystems.

There is a need to follow up and examine how the Global Knowledge Institute will continue to work with communities and the government

agencies after its pilot phase. This should aim at helping to establish how communities and governments can be made to be at the center of such learning ecosystems to avoid repeating the old systems that are owned and controlled from elsewhere, and forces beyond the control and management of the people concerned. Further, it will be important to see how established bureaucracies that characterize governance systems adapt and learn from network and community based systems of managing innovative social change.

4. ICT brain networking for education and social innovation in low resourced environments.

There remains a lot to be established, with regard to appropriate technologies that can meet the emergent needs and behaviors that come with global brain networking around complex issues of sustainability of higher education and social transformation in Africa.

5. Ubuntu: Transforming Higher Education and Research in Africa

This study showed that local knowledge, which is defined by context, cultural norms and attitudes, vernacular epistemologies, aspirations, worldviews and indigenous technologies is critical to sustainability, and the Global Knowledge Institute was endeavoring to dovetail its system and curriculum based on this. There remains a gap, however, as regards the study of the way in which the African philosophy of living and

learning as education systems have remained modelled after colonial philosophies. Ubuntu specifically, as a dominantly cited philosophy, is a good starting point for the development and evolution of an Afrocentric education.

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Appendices

Appendix 1: Interview Guide

Section One: Design of GKI

1. Do you think GKI is a sustainable university learning system? What reasons do you have to explain your answer?
2. In what ways is GKI similar and different from other traditional universities in Zambia or elsewhere?
3. Are there theoretical, practical and ideological reasons you have to explain the similarities and differences?

Section Two: Efficaciousness of the Designer Elements

1. What role do you feel you play in GKI?
2. What contribution do you feel you make and to whom?
3. How do you think others see your role and your contribution?
4. Why do you do what you do in GKI? How much time do you devote to this?
5. Do you find your efforts rewarding?
6. Do you think there will be benefits in the future? To whom?
7. What do you think the possibilities are for the GKI to facilitate for those benefits?
8. What have you learned as a participant?
9. How has your participation changed your views of university education?
10. Do you feel you are more creative or have other changed perspective?
11. Have you encouraged others to participate? Why?

Appendix 2: GKA 2001 Overview and long term vision

The GKA adds value to the world community by creating an environment that ensures that all participants involved in solving complex problems have a voice, understanding that their knowledge and insight is not only valuable, but also essential. GKA believes that if mankind is going to begin to develop effective sustainable solutions to complex problems then there must be a learning environment that allows these voices to be heard and appreciated, regardless of a person's culture, ethnicity, social class, gender or geographic location. It is in these environments that the creation of new knowledge occurs. The GLCs' principle responsibility is to discover ways to create these learning environments and help implement strategies that maximize their beneficial effects.

Overview

The quality of life of the world's population is increasingly impacted by locally manifested and globally linked problems such as the spread of disease (AIDS, tuberculosis, malaria), environmental degradation (water quality degradation, deforestation, expansion of desert areas), social instability (civil war, migration, of refugees, statelessness), and food insecurity (poor nutrition, hunger, famine). Understanding the full impact and complexity of these problems and effectively addressing them demands a global perspective. Yet, each problem manifests itself differently in specific communities and contexts. Devising effective strategies that lead to sustainable solutions requires that information, resources and perspectives of multiple sectors, professions, cultures, communities and classes be accessible and integrated in a useful and creative way. Complex problems and their attendant solutions are, in part, characterized by the interactions and multifaceted dynamics between members of these various groups.

Such intractable problems, characterized by multifaceted, dynamic interactions, cannot be easily understood through existing expertise-driven methods of inquiry, nor are there sets of methodologies commonly in use that effectively combine input from professionally and culturally diverse groups. Consider, for example, the problem of flooded agricultural fields in a remote, poor region of Asia. A water engineer hired by the government may well look for the fastest and most efficient solution to draining these fields since, for an engineer, time is valuable and modern tools may well be at hand. Community members, tackling the same problem may wish for a solution that can be implemented over and over again by the community members, themselves, even if it requires considerable labor and learning. For them, a simple, i.e., locally feasible, solution not

dependent upon external expertise or advanced technology is the priority. A donor agency may look for solutions that can be broadly applied to neighboring areas or across a region, as macro solutions are easiest to administer and monitor. Separately, each of these groups defines the problem and its scope differently. Further, each defines the "target group" differently. The engineer is trying to satisfy the needs of the government; the community focuses on the needs of its members; and the donor agency focuses on the needs of several countries or communities in a region. It is likely that there is a single best solution that speaks to the needs of each of these three groups, but such a solution will require an approach in which they participate as equal partners in its development. Once such an approach is developed, each will likely play a key role in the implementation phase. Furthermore, they will have to maintain linkages with each other in order to manage the implementation develop solutions to new problems, and continuously improve on their initial solution. In short, they need dependable linkages and a continuous learning process that will bridge their professional, cultural, sectoral and social group differences and that will allow them to take advantage of the resultant increased understanding of the identified problem and their improved ability to work together.

What if we could get the government engineer, the community, and the donor agency together? If no learning structure were in place, each group would likely assume the position of exclusive proponents of its own entrenched perspective - pointing out to other groups the errors in their thinking and the need to consider alternative views. Or, perhaps more likely, one group (generally the community group) would remain silent, waiting to discern the priorities of the funders (efficiency for example), and responding to possible solutions along this line.

What these entities need is a learning environment and a methodology that will help them work toward a common strategy. And, once such a strategy is adopted, even greater development outcomes would be achieved if their approach could be used to inform similar efforts of other engineers or government agents, communities, and donors that are facing a like problem elsewhere in their region or in the world? Perhaps an environmental firm might want to tackle a new technology based on the group's analysis. Perhaps a development agency might rethink its strategies based on this new information. In short, the new knowledge generated has value - for markets, for communities and for the non-government sector. The Global Knowledge Alliance (GKA)⁵³ is designed to create this learning environment and to link these local learning groups with global learning groups. Thus, local and global information, resources and learning can be exchanged. In so doing, the GKA builds effective methodologies and structures

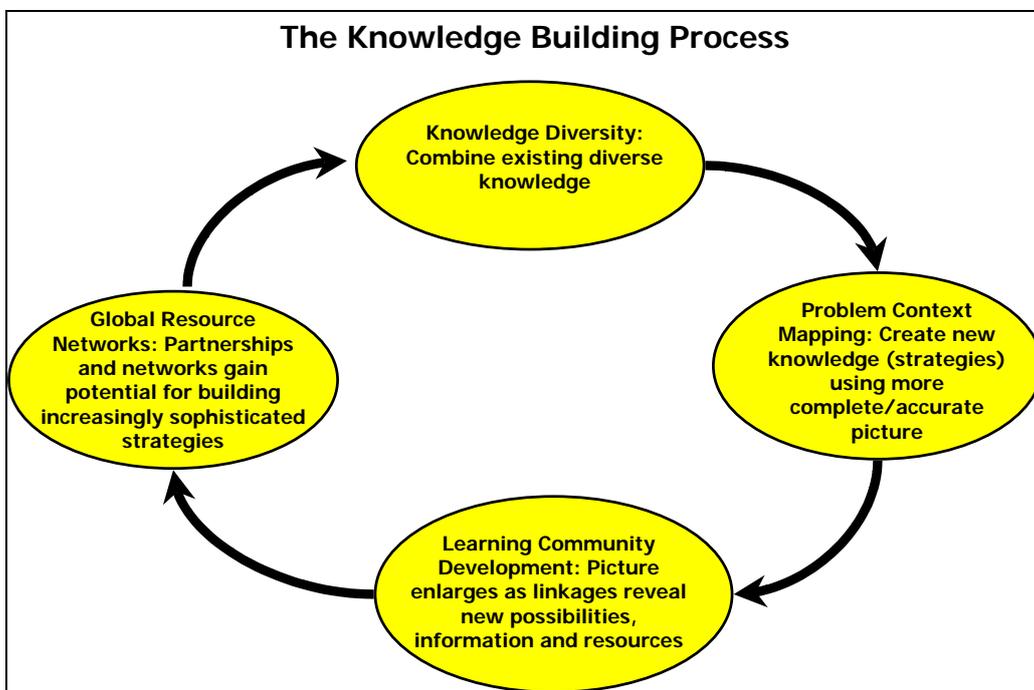
⁵³ The Corporate name for our global NGO.

networks from which diverse entities effectively build new knowledge and use this knowledge to devise and implement sustainable solutions to complex problems.

How does GKA achieve this vision?

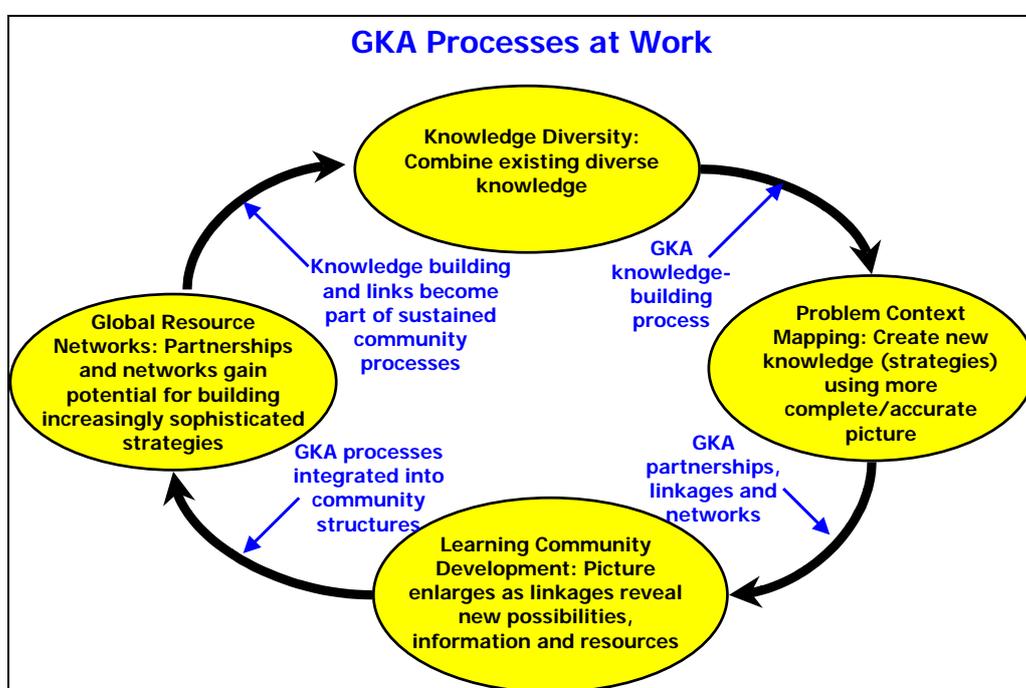
The GKA uses organizational diversity in a new and innovative way. We assume that every organization involved in addressing complex community based problems has a piece of the ‘solution puzzle’ that can, if correctly integrated, create a more sustainable approach to any given problem. By having all parties jointly work to form a more complete picture, each is, in turn, more likely to identify the optimal use of its own resources and to foster the linkages with other organizations from which it derives the most benefit. As such, it becomes more effective, efficient and a better partner in tackling the problem. The GKA’s approach first recognizes that diverse perspectives, values and understandings can be combined to create more effective strategies for tackling today’s globally-linked, locally manifested problems. Figure 1 depicts the steps of this process.

Figure 1: How New Knowledge Gets Built and Sustained



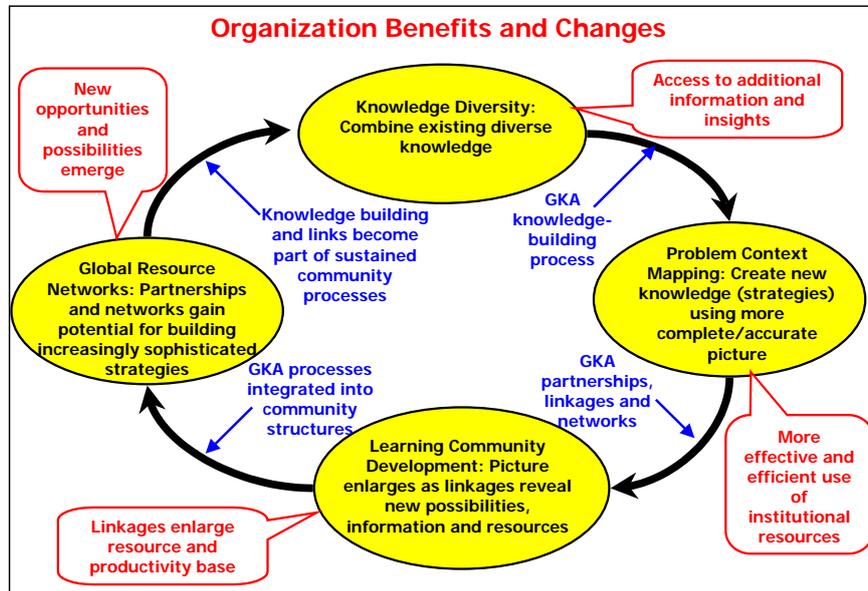
The GKA facilitates this process through application of its knowledge-building protocols, which are specifically designed to developing integrated strategies from diverse perspectives. In addition to building knowledge or even creating new knowledge, the process † builds networks between diverse entities within the local community. It also links local and global knowledge building groups with each other to increase knowledge and diversity of perspectives. The GKA then works with the community to build this knowledge building processes into its normal problem-solving processes and structures. This builds sustainability and the ability to grow further. Finally, the GKA sticks with local and global groups to facilitate their relatively autonomous interactions.

Figure 2: How GKA facilitates the Learning Process



In addition to building knowledge or creating new knowledge that solves or leads to solution of the defined problem, the GKA process changes how organizations operate internally, relate to other organizations externally, and increased the value of their products and services. Figure 3 shows how institutions benefit from this GKA-facilitate learning process.

Figure 3: How GKA adds Value to Organizations



GKA's Mission, Purpose and Vision

Mission:

Building new knowledge by promoting inclusive problem solving strategies through the facilitation of global and local community linkages.

Purpose:

Promotion of the well being of local and global communities by building new knowledge.

The GKA accomplishes this by facilitating linkages (1) between geographically dispersed communities sharing common problems of global concern and (2) between these communities and relevant centers of learning, governmental bodies, corporations and other entities. These linkages form a networked environment that is economically, culturally and institutionally optimal for the free exchange of contextual and expert knowledge. As such, these networks add value by promoting inclusive problem solving strategies.

Vision:

Locally effective knowledge-building networks that further the creation of a globally linked community.

The GKA fulfills its vision by creating linkages between geographically dispersed communities sharing common problems of local and global concern and by providing knowledge building protocols that assist diverse groups in building new, more sophisticated strategies for tackling these problems. Such strategies increase the effectiveness of existing groups, reveal new opportunities for action, and create lasting linkages to resources (other groups) heretofore generally inaccessible. In order to accomplish this, the GKA envisions two unifying processes: knowledge building processes, and support processes.

The Knowledge Building Process

A fundamental goal of GKA is to maximize the ability of diverse groups to work effectively together to build new strategies for addressing complex problems. This collaborative process is known as knowledge building. The knowledge building process is facilitated by a number of elements: a set of knowledge building protocols designed to provide a framework for diverse groups to combine their understandings into new, more sophisticated strategies; highly skilled facilitators that can manage group learning and provide clarity of purpose as well as a "safe" environment for this knowledge building; globally dispersed R&D centers (Global Learning Centers - GLCs) that continuously upgrade the knowledge building protocols, group facilitation methodologies and network designs; and finally, an organizational design for GKA itself, that is flexible and able to change as the organization learns how to better implement knowledge-building processes.

GKA has a set of objectives that serve to achieve this goal:

1. The GKA will have a functional set of knowledge building protocols in a format that can be used in a variety of settings including community centers, board rooms and on-line. Any entity or individual involved with GKA projects will be able to use these protocols to build new strategies.

We will be constantly upgrading our understanding of how groups learn and build integrated strategies. This upgrading will be done by testing our protocols

with groups in real-time meetings and by monitoring the learning processes as they are put on line. Generally, the development of learning techniques will follow a pattern: (1) identification of a learning need/step not yet developed, (2) testing new or revised processes geared to meet that need, (3) identifying components that can be patterned on line, (4) working with our most sophisticated groups to trouble-shoot new learning steps until they have reasonable utility, and (5) constantly upgrading our online and site specific learning techniques.

2. The GKA will know which steps or processes require facilitation.

We know that diverse groups can build new knowledge by effectively blending their diverse knowledge sets. We know that it is possible to create an environment where an individual's or group's perceived vulnerability is minimized. We also know how to effectively facilitate the creation and usage of learning environments. What we don't know is which of these processes require group facilitation, which can proceed with minimal intervention and which can be moved to a technological environment. Neither do we know if the facilitation process is the same for on-line groups as it is for groups that meet in real time at a common meeting site.

Group dynamics with on-line parties will likely share some of the same characteristics as we see in real-time site-specific meetings. However, communication will clearly be more limited and will present its own set of challenges. We will develop new processes for on-line facilitation that build from our knowledge of in-person group dynamics. These will be finely tuned through testing trials using an appropriate technology medium. The technology component of GKA's vision is critical, as it is this medium that allows us to rapidly and effectively connect the widely disparate groups that we feel can benefit from sharing knowledge with one another.

3. We will have functional Global Learning Centers (GLCs) that integrate local learning processes and global research into evolving knowledge building and community learning strategies. These are described in some detail below.

The GKA will be its own continuous learning community. New knowledge created within the organization will be integrated into increasingly sophisticated understandings of global issues. GLCs, thus, will perform numerous critical

functions, including: (1) the upgrading of our knowledge building protocols, learning community environment, and group facilitation skills, (2) the integration of global and local understandings so as to contribute to new global strategies for dealing with complex issues having a global reach, and (3) the building of new understandings of knowledge creation, group learning, and community development that contribute to the world's information base.

4. GKA will function as a model learning organization.

The GKA will be structured to maximize learning. There will be three main learning processes: (1) the building of new strategies to address local and global issues, (2) intramural activities that define us as a learning organization, and (3) iterative processes that compel us to continuously learn and gain insight into the learning process itself.

These processes represent the core of our operations and, hence, are a central focus of the organization. In this regard, we will continuously upgrade our understanding and utilization of these processes such that, at any given time, our "best practices are continuously being enhanced. We regard all of the GKA components, our various partners and local communities as functioning not only as creators of new knowledge but as beneficiaries of such knowledge. As such, we also see all participating entities being in a continuous state of flux, evolving in response to changes in their external environment and in response to internal growth and learning.

5. The GKA constantly search for ways to maximize the diversity from which we build knowledge.

We will do so by ensuring diverse representation among GKA's Board of Directors, employees, project staff, partners and project sites. We will also continually explore new ways for these diverse elements to contribute to GKA structures, processes and strategies.

We recognize that language is a symbol for what might be a more profound difference - that of culture. Even as our GLCs and projects can and will function, in part, in various languages, we will also recognize that they may well be functioning with culturally disparate assumptions about the world. Thus, while we find ways of linking to diverse cultures and languages, we will also have a process in place that allows GKA itself to learn from such diverse world-views.

The Support Process

Another goal of GKA is to support the learning, institutional, technology and information networks that are needed for new strategy building and implementation. We will achieve this by creating support networks that give partners and communities access to each other and their various resources (information, funding, other networks).

GKA has a set of objectives that serve to achieve this goal:

1. GKA will become a facilitator and catalyst in the exchange of information between global partners, local communities and the GKA organization itself.

This facilitated process will occur through the compilation of selected expert-based and context-based information and resources, documenting GKA approaches used in the communities it serves, and the building of a network for the exchange of informal knowledge. Furthermore, we will continuously develop and implement ways of accessing and compiling this information to integrate into the knowledge building process.

The GLCs will develop a flexible database structure that ensures that existing information and processes can be accessed and regrouped and/or linked in various ways by all users. This database will be research friendly so that individuals can locate specific information, discern new trends, access GKA resources, and create new linkages as new needs emerge. As such, the database will contain links to existing scientific information, and documentation of our principles, values and processes being developed by GKA groups working on the same global issue. It will also have a resource base of people, their areas of expertise, and group characteristics of GKA partners.

2. GKA will create networks that facilitate cross-group learning, information exchange and ready access to resources.

The GKA will link geographically, professionally, culturally and sectorally diverse entities that share a common interest in tackling a globally linked problem. This network will include not only linkages through technology but also linkages between people who work across sectoral, geographic, cultural and/or professional divisions. These entities will consist of local communities (local project sites), a network of global organizations interested in the global

issue (called Global Issue Groups) and a network of GKA partners that provide funding or other resources for our various operations. Each of these networks can use our knowledge building protocols, learning community environment and facilitation skills to build new strategies for the global issue at hand and/or for GKA operations.

3. The GKA will build an environment whereby the perceived "risks" of cross-group learning and the exchange of information are minimized.

We will define the core elements of community building that are necessary to build new linkages between on-line groups. Although initially we will take a proactive role in introducing GKA-known groups on-line, eventually these entities will be able to create their own linkages using the community building principles that have been developed. This means that we will have a thorough understanding of the social, psychological, economic, technological, political, cultural and legal implications for organizations to participate in our learning processes and networks.

4. GKA will provide resource support both through its own organization and through a network of global partners and local communities.

As new strategies evolve, previously unidentified needs will emerge. GKA entities will meet some of these needs by reorienting their energies and resources. Some, however, will require substantial additional support. Further, if new strategies are very promising, global partners may wish to implement new global strategies or build on new local strategies. The members of our Global Issue Groups⁵⁴ will sometimes choose to provide these resources or may be able to tap into other networks for the resources. Members may, as well, prove to be a rich source of information either at global or local levels.

The GKA Organizational Structure

When fully developed, GKA will consist of four major components, each intricately linked through a technology network. These four divisions include a Project Center, Global Learning Centers, Virtual Communities and a Central Operations.

⁵⁴ See The Project Center (page 3) for an explanation of this GKA component.

Central Operations

Essential functions: This office serves to support the work of the other GKA components and exists principally for this purpose. Essential functions include the following:

Leadership

1. Working with the Board of Directors to ensure that we stay true to our mission.
2. Providing leadership and consistency to achieve our long-term vision.
3. Functioning as the center of activities for the Board of Directors. This division is responsible for fully supporting the Directors from organizing meetings and retreats to facilitating communications between the Board of Directors and GKA staff members and key external constituents.
4. Ensuring optimal strategic development/planning and timely implementation of essential elements of our business plan.

Administrative Oversight

Providing general corporate support functions such as finance/accounting, fundraising/development, legal oversight, marketing, communications, facilities, contract management and other general business matters.

Strategic Planning/Coordination

1. Identifying global issues targeted for development of GKA local projects that tie directly to our organization's mission and vision
2. Providing vision and direction for new GKA initiatives.
3. Coordinating activities between all divisions.
4. Functioning as a central information/data repository. All information and data essential to and relevant for the functioning of the GKA will be stored at this office.

Linkages/Partnerships/Processes

1. Because this office serves as the 'glue' that holds the organization together, it may also be the center for technological development.
2. Center of overall organizational learning,

A major function of Central Operations is overseeing, building and strengthening GKA intramural knowledge building. This will include (1) the knowledge building processes, (2) intramural technology, (3) partnerships and linkages, (4) communication and knowledge transfers among GKA components. Because of the critical importance attached to these goals, and the need to optimize linkages between the various GKA divisions and our key constituents, we commit to hiring, at the earliest possible moment, a staff member expert in these arenas.

Currently, it is planned that the central administrative offices will be located in Seattle, U.S.A. The lead administrator at this office will be the executive director, or CEO, of GKA. As much as possible, staffing will be kept to a minimum and volunteers will be used where possible. This office will ensure that there is sufficient facility, equipment and technical support for its employees and to accommodate the needs of the Board of Directors. Day to day operational management, budget development and oversight of individual projects will be under the auspices of divisional leaders at the various GKA divisions.

Challenges: There are, of course, numerous challenges that will face GKA as it develops. But there are a few key challenges that may undermine all of our efforts and prevent us from achieving our long-term vision. The vision, as it is currently constructed, is for a sizeable organization. There is considerable complexity to the structure, and orchestrating GKA's growth while ensuring that there are sufficient funds and that these funds are wisely expended will be critical to our success. We must constantly strive to minimize overhead expenses to ensure that a high percentage of our funds directly serve the populations targeted in our mission. There is some risk that growth will occur too fast and will become chaotic. Clearly developed strategic and business plans and well-defined goals and objectives with achievable timelines will be critical to managing such concerns. We must remain a creative learning organization, capable of rapid change, despite our growth rate or complexity.

The Project Center

Essential functions: This office provides leadership and oversight for all of GKA's local projects and is responsible for identifying and developing alliances with organizations globally that comprise the networks that serve to support our projects, the Global Issue Groups. Essential functions include:

Key Global Issue related projects

1. Directing all (local and global) projects.
2. Identifying knowledge created within local projects and making this knowledge available to other project sites involved in similar work and to entities participating in the Global Issue Groups. Identifying opportunities for expansion of existing projects and development of new ones.

Knowledge transfer and linkages

1. Ensuring that GKA is itself kept abreast of this newly created knowledge.
2. Ensuring that critical linkages are built, maintained and enhanced between organizations that comprise Global Issue Groups. Coordinating all services provided for Global Issue Groups by GKA.
3. Developing and maintaining critical linkages and relationships to foundations, governmental agencies, NGOs, private corporations and other entities involved in our Key Global Issue projects.

Planning and Development

1. Working directly with other administrative leaders and the Board of Directors on overall strategic development and implementation.
2. Grant writing and the pursuit of project directed funding.
3. Facilitating the conversion of theories developed at the Global Learning Centers into practical applications through the coordinated efforts of the project center leadership.

This office and the Key Global Issue Projects that it oversees share certain explicit goals:

1. Build highly effective approaches that lead to sustainable solutions for complex community based problems.
2. Ensure that continuous learning and knowledge creation occur within the Key Global Issue Projects.
3. Facilitate the dynamic knowledge-building processes that occur between GKA units and the Key Global Issue Projects, between different local projects' sites, and between organizations within Global Issue Groups.
4. Incorporate new concepts, learning protocols and technological advances into the Key Global Issue Projects; and, conversely, identifying new ideas and knowledge at the project sites and informing Global Issue Groups and other components of GKA of these advances.

5. Work closely with other GKA units to ensure efficient communication and sharing of information. This is especially important when there are multiple local project sites working on the same/similar issues.

The project center will be at the leading edge of learning how technological advances can be effectively accessed and utilized to help break down traditional communication and geographic barriers so that information sharing and knowledge creation between all entities participating in related local projects or within the Global Issue Groups is enhanced. This work will require close coordination and cooperation with the Global Learning Centers described below.

The project center will also create and operate Global Issue Groups linked to local projects. These group will become critical centers of learning and knowledge creation and will be fundamentally tied to the relevant GKA local projects. These networks will be assigned at least one GKA facilitator funded through the local projects and expert in the issue at hand.

Structure: The GKA project center will be located in Washington, D.C., where there will be an administrative office with oversight of all aspects of Key Global Issue Project development, support and reporting. The director of this office will serve on the executive team of GKA. Funding for this office will derive principally from grants received for Key Global Issue Projects and their affiliated networks. This site will develop and maintain linkages between related local projects and within the Global Issue Groups as described above, and work closely with Central Operations and the Global Learning Centers to develop and incorporate technological advances and new learning protocols into GKA's projects.

Challenges: The most immediate challenge will be creating a "project management" culture that does not suffer from the "headquarters-field divide" that so often characterizes the operations of internationally operating organizations. This will require leadership and an organizational culture that internalizes the values and principles of GKA. This will probably be quite a challenge – to convention – at the outset. A high priority will be to establish an integrated working relationship with the Central Operations. A second challenge will be to maintain this relationship in a way that draws on the Central Operations both as a management support resource and as the corporate management authority. A third challenge will be the development and operation

of the communication technology needed to keep the Project Center in continuous, effective contact with its local project sites, Central Operations, and the Global Learning Centers. Keeping the Project Center's work integrated with the Global Issue Groups and any on-line network that GKA may develop will also be challenging. Finally, maintaining an effective span of control over a very geographically dispersed, and culturally diverse range of projects will be especially challenging...and rewarding.

Global Learning Centers, or GLCs

Essential functions: the Global Learning Centers are, at their core, the sites for development of new ideas and theories regarding knowledge creation and learning. It is here that knowledge building protocols and facilitation processes are developed and modified. The software technology and network construction that GKA requires to effectively connect local project sites, Global Issue Groups and the various GKA components are developed here. Although we view all components of GKA as essential learning centers, it is at the GLCs that we will coordinate the teaching and training of scholars/practitioners in GKA's theories and methods. These academic centers will publish articles and commentaries in leading journals involved in knowledge creation and the global knowledge economy. Essential functions include:

Leading-edge Research and Publication

1. Performing research and developing new ideas and theories in the fields of knowledge creation and learning.
2. Documenting and publishing these new ideas and theories.
3. Disseminating these ideas and theories to GKA divisions and partners.

Applied Research

1. Creating essential software that supports GKA's on-line networks and communications.
2. Developing and modifying knowledge building protocols and learning methodologies. Serving as a global information database for GKA and its networks of affiliated entities (such as the Global Issue Groups).

Training

Serving as an educational institute for teaching and training students from around the world interested in learning about the theories and practical applications developed within GKA.

Development

Facilitating global-local communications and GKA projects that occur in ‘virtual communities’.

The Global Learning Centers share certain goals:

1. Function as a highly regarded ‘think tank’ for the development of new ideas and theories related to knowledge creation and organizational learning.
2. Perform original research on the practical applications of these new ideas and theories. Document and publish these findings.
3. Effectively communicate these findings to GKA divisions and its global partners.
4. Continuously improve the knowledge building protocols and learning methodologies
5. Provide up to the minute information to GKA divisions and its global partners through a highly functional, user-friendly database and technological links.
6. Provide excellent facilitation to GKA divisions and its partners, including affiliated virtual communities.
7. Create high quality software to support GKA’s efforts on line.

The GLCs will create the knowledge building environment whereby global networks of people and organizations that are linked through a common interest in addressing concerns about a single worldwide problem.

Structures: The long-term structure of the Global Learning Centers is not finalized. Initially, there will be a single central learning center whose responsibilities fully encompass the essential functions listed above. This principal learning center will be linked to an existing institute of higher education. It is envisioned that eventually there may be a number of these centers and that these may exist physically anywhere in the world. New centers may come into existence based on the location of key individuals involved in GKA work, and on access to certain unique skill sets or cultures. These regional centers will fall under the auspices of the principal learning center.

The location of the principal learning center is not yet identified. It will house an administrative office responsible for providing funding, leadership and essential operations for the work delineated above. The director of this office will serve on the executive team of GKA. Funding will derive largely from grants received to further the work around the concepts of knowledge creation and the creation of new technology. In addition, some funding will derive from tuition paid by students who come to a Global Learning Center for educational and/or training purposes.

Challenges: There may eventually be Global Learning Centers that function, at least in part, in a language other than English. GKA will need to identify a process by which different divisions, or participants, can interact in a constructive and productive fashion despite differences in primary language. This problem will also exist for the on-line communities GKA envisions. It is assumed that the rate at which new ideas and theories are converted to potential practical applications will be rapid. GKA will need to embrace change, and see it as an opportunity for growth and innovation. The Global Learning Centers will need to function somewhat autonomously from the central administrative offices, if they are to be effective centers for the generation of new ideas and theories. Yet a strong connection to Central Operations is essential if the organization is to act cohesively and remain focused on its mission. In addition, the GLCs have little reason to exist without the work of the project center and its local projects. Therefore, there must be an optimal relationship between the leaders of these two divisions and their coworkers, and communication between the divisions must be excellent.

Virtual Communities

The GKA recognizes that the development of a user-friendly, web-enabled learning interface that works across diverse thinkers and professionals like has considerable market, social and personal value. Thus, if we succeed in honing our Knowledge Building Protocols to the point where they can be successfully used by people who share a common concern but have never met, we intend to build a network interface whereby these groups can build new strategies on line. This is a medium-term idea at the moment and requires quite a bit of R&D work with local and global groups before we know whether we have something that can be used without the day-to-day oversight we'll give to our issue groups. At that point, we will need to resolve legal issue (whether and how to patent it),

financial issues (how to structure this network such that local groups with few resources have substantial access, for example), structural issues (where, in the GKA corporation would this function lie) and operational issues (will on-going development lie within the GLCs or elsewhere, for example). Despite these many unknowns and steps, we do have some notions of these virtual communities. Below is a short overview.

Essential Functions: To design, build, operate and support Global Issue Groups and other on-line networks. This GKA unit may eventually become incorporated separately and be profit-generating.

The GKA will work toward the ability to facilitate virtual communities that form around a single issue of global concern, yet function quite independently from GKA. They are known as Global Issue Groups. They will have access to our technology, learning protocols and facilitation expertise. GKA will develop new learning technology specifically designed for the type of on-line, virtual community suggested here. These communities will likely be comprised of individuals who have shared concerns and interests, yet may have never met, may not speak the same language, or may have dramatically different motivations or world-views. These communities will be self-sustaining – paid for by membership fees. Over time, we believe that GKA’s products related to new technology, learning and facilitation will have a market value and that this may create unique opportunities for GKA. Though financial profitability is not a principal goal of GKA, if such an opportunity developed, GKA would pursue the formation of a new independent for-profit entity.

Structure: Global Issue Groups will be comprised of global organizations that have an interest in assisting local communities that are participating in a GKA local project. Their principal role is supportive and is to help build new, more effective approaches to solving complex problems that impact local communities. These Global Issue Groups will have at least one assigned facilitator employed by the GKA but funded through the local project. Various Global Issue Groups will be linked through technology, initially with the use of existing modalities such as email, discussion boards and audio and video teleconferencing. As GKA knowledge building protocols and learning environment structures become available on line, the Global Issue Groups will serve as testing sites and will incorporate significant advances. Funding for the Global Issue Groups will derive from the GKA local projects.

Appendix 3: Extracts from my Pre-Doctoral Diary

MISEDUCATION OF CLEVER GIRLS AND INTELLIGENT BOYS

July Diary, 2009

Inkhosikazi,⁵⁵

We are born to celebrate our pure body. It is the first fruit of our abandoned innocence and the coming home through absence of the defiled body. If only we could preserve its sacredness right from fertilisation, through the birth canal to the death bed and the thereafter, we would never depart without its presence.

In an attempt to be divine, I have just arrived from the Feast of Tents. I looked around among the hundreds that gathered. I did not see you or anything that resembles you except in terms of gender. It was endangering and angering.

“My people perished because of lack of knowledge,” emphasised one Apostle as he ended his sermon which reminded me of my early undergraduate days. Entering the University with a lot of expectations having had read widely on what it means to be a university student, I was terribly disappointed.

I was particularly put off by the manner in which certain parts of the institution were administered. Though I can't bore you by fully accounting for the unprofessional things that I saw, it will be not out of place to tell you something.

Certain unprintable parts of the institution were characterised by much tyranny, exploitation, humiliation and all their equivalents within and outside their walls. Such vices, although to some staff I met are virtues, to date, have emasculated the student and reduced him to a primary school pupil, a mongrel who has no identity, a stone-thrower whose mind revolves around politics of the belly, a visionless learner who simply focuses on getting better grades by any means necessary and not the acquisition of the worthwhile values, attitudes, skills, knowledge and wisdom.

There was a very small proportion of the staff I remember who demonstrated professionalism. Very few accepted the fact that whatever education is, whatever the gallantness of a given institution may be, whatever the qualifications and

⁵⁵ Inkhosikazi in my diaries means Empress or Queen. I use it to refer to my homeland, Africa, that I address as a woman I am in search for.

competent capacities the human resource employed can have; all this is but planned for the betterment of the learner who constitutes posterity.

The unprofessional character of majority of the university staff now explains a lot of realities. After years of students' energies being siphoned by so stressful a registration process, after so many strikes, class boycotts, lectures, tutorials, assignments, tests, examinations and academic research papers, nothing in them touches those things that makes us care, those things that makes us not to despair. To you my love, allow me to speak on behalf of those I shared my undergraduate days with and indeed on my own behalf that in whatever we learnt, nothing in them is anymore today making us feel the pain and suffering our people were subjected to by the lash of a slave trader and master who transformed into a colonial master and now taking different shapes of civil society systems and donor aid.

Nothing in them is anymore making us experience the hurt our people felt when they were betrayed and delivered into the tormenting hands of colonial rule and subjugation by the missionary whose disparaging schemes continue to exploit our people in the name of religion – taxing them every week and accounting not for such monies. They have to struggle in raising school fees and church fees.

Nothing in them is anymore making us smell the oozing blood our people lost in various battles with the colonial master who till today holds us as a ransom with our resources for having claimed our political power from him.

Nothing in them neither evokes hate nor provokes a feeling of disdain against purveyors and perpetrators of systems that strive on greedy, deceit and corruption.

This nothingness partly explains why an institution that was once able to attract and retain highly qualified academics, engage in research aimed at expanding the frontiers of human knowledge and offer best teaching services of the highest standards, thereby on merit, winning the respect of the university world, is today ranked the least among the worst. At the beginning of my third years I wrote a poem, *I Need Education*, if you would allow me to share:

O what jubilation

Ears lamed with sordid theorization

Spiritual annexation, intellectual coercion, physical deformation

Sabotage mollification of Babylon capitalist reverberation

Labeled education

Victims inaugurated at every graduation

Game hunting transformation to job hunting by certification
Best victims brain drained, poverty edification

I yearn for a day
A day when this am to say
Will pay and open the way

I need education
Education of roots
Herbal cure for the neck tied to theories
Jacketed in jacks of all trades masters of none
Practical dwarfs every year flowering podiums in designer suits
That in our society produces no fruits
Diplomas duped of dignity to the bone
Bachelors batched brains patched to politics of fear revolving around the belly
Masters misled master manipulators of the nation
PhDs diseased with deception and mass corruption
I need education
Not education of quoting other people, dead people, people who never even
entered university
People who never lived in my community
I need education that court my ancient philosophy
Marry my ideas and traditions
Make love with me in the forest of my thoughts
Give orgasms to my imaginations unknown
There to birth great works unborn

I need education
Not education of flowers in callous colours of lies
People living in lies of labs and lecture theatres
Taking pleasure in half naked student thighs
Sagged behinds of student boys evident of sucked minds
For a day's sake we cover such shame in garments of green and gray
Long speeches claiming progress, t's all lies
What produced these students is but a life of flies
Substandard dirty restaurants dotted around hostels
Little stuffy shops looting their petty allowances
Heaped like sacks in dorms readied to graduate with sucked norms
Tortured by administrators in public positions for personal pursuits
Lectured by lecturers with content, impotent in delivery
T's a teachers job yet these dons gat no pedagogy
Misdirected experts for misdirecting is the best analogy

I need a teacher, eclectic teacher
That African teacher
Teaching the subject, teaching the student
No need for a preacher
Like a lecturer I know
Who only teaches the subject not teaching the student
I need education
A lifelong learning, this is my yearning

Ah, Inkhosikazi, let me not bother you much with that malfunctioning of my former institution of higher learning. But this is the environment in which I earned my higher education. My studies commenced on such a sad note with a lot of troubles both spiritual and physical. I should confess that this made me even as I started attending lectures and tutorials, a month after the actual time, remain withdrawn from the happenings around me. At the same time, my problems needed to be solved the soonest. When I say my problems, I do not include the search for you. To me, finding you is not a problem but a solution. It is like a voyage of discovery always refreshed at the cape of good hope – an exciting adventure into the mythical lost city full of gold and diamonds. An endeavour I can only engage with a sober and spiritually fit mind.....

ACADEMIC LIES MAY MAKE ME MISS YOU

February Diary, 2010

Inkhosikazi,

I completed my undergraduate studies and about to earn my master's degree, yet I am not and have not been of help to my own people. I am becoming uncomfortable with my situation now. Although conscious of what people from the eastern Zambia say that 'Ngulube idalira msampa utaninga,'⁵⁶ now I am becoming powerless against this discomfort.

My discomfort is born out of what I may term as 'indoctrination of the African'. If I had not reached the education level I am right now in this western education system, one would be justified in the current borrowed state of affairs to accuse

⁵⁶ Literally translated, this is: "The warthog cried when the trap was at its breaking point". It teaches resilience and patience owing to the fact that as humans, we often give up when the storm is almost over – last minutes are always dangerous.

me of ignorance, superstition or anything they prefer to say. But the truth is what I wish to stress here with unmistakable words.

We, most of us, the 'educated' Africans, have a problem. Our attitude towards our own people is that of contempt. You see wrongs are forgivable. But contempt is punishable even by death because it injures the pride of the affected individual. Contempt is just bad and is consciously perpetrated. The root cause of our contempt as educated Africans is our education curricula. It is the curriculum creating this pathos. From elementary schools to university level, we are taught to admire what is foreign and to despise our own things and essence.

In my community for instance, just from the beginning of the word school, you are considered illiterate in speech and numeracy if you can only speak and count in your own indigenous language. You are scolded, called names and laughed at for addressing the world using our indigenous languages.

In millions of schools where African history is taught, the studied period is misleading. It starts African existence from Cameroon highlands and the presentation of the material is disparaging. In this kind of 'his' 'story,' an African is presented as an evolved ape – homo sapien: the descendant of homohabilis – incapable of developing scientific technology and evolving philosophy. An African is depicted as a poor peasant farmer, herder of disease infested animals and a bloodthirsty nomad always fighting for land, women and power; hence the widespread tribal wars across Africa. The events before the Cameroon highland settlements are dismissed as nothing when in the actual fact it is the true history that harbours the true genius and greatness of an African.

The origins of life are also presented from a European folktale perspective and racist scientific background. By the end of the study, children are made to detest their own past because of the misrepresented facts.

Hundreds of universities across the continent have no Departments specifically looking at African studies and the rewriting of African past and present to command light for posterity. College and University Departments that take on courses dealing with African history, studies the account of an African only as a problem or dismissed as a nonentity in the bank of history.

It is not surprising to find Africans making heroes out of bloodthirsty fascists like Mussolini and his cadre of murderers. Yet, dreading their own African heroes like Kwame Nkrumah, Haile Selassie, Gadhafi and comrade Mugabe. Africans detach themselves from great kings and queens like Shaka Zulu, Queen Nzinga, the Queen of Sheba and Europa herself after which Europe is named.

The demonisation of Africa is found in almost every book an African reads, every room and school she enters. Clearly, if an African leave school before he is brainwashed with such immoral theories throughout the misapplied education pyramid, he would naturally escape some of this bias and recover in time to be of service to his people. I fear for myself as I said earlier that I graduated but have not been service to my people.

My dear you will agree with me that, practically, the people taking much community leadership positions across the continent are those labelled as drop-outs and illiterates who failed to cope with the steam of formal education or did not access such education at all. Such are the ones left to administer the continent in a tragic way. The proudly called educated elites and their partners are and have proved to be so, worthless to the betterment of our people. Many have fled away from the continent. Those within, the best they have proved to be is being agents of neo-colonialism and all the –isms and schisms perpetrating language death, extermination of African culture, waging biological warfare – infecting their own people with viruses under the camouflage of vaccines, natal experiments and killing animals and vegetation under rhetoric names of Green Revolution – a revolution that was a bi-product of excessive artillery production.

If there are any crimes against humanity that the International Criminal Court (ICC) must deal with is this handicapping of Africans in schools. I think we need an African Global Criminal Court (AGCC) to try each every individual and governments that are and have perpetrated this inhumanity of killing all aspirations of Africans and dooming them to vagabondage and crime through education. I say we need AGCC because to me, the ICC in its present configuration is like the Secuiry Council of the United Nations, a mere extension of the European and American aggression against the developing world. This is because, as Millius Palayiwa, a *Registrar, Christ Church College, Oxford University*, in one of the emails I received says, since the ICC came into effect in July 1st, 2002, by October 2007, the ICC prosecutor, Luis Moreno-Ocampo, had received 2,889 communications about alleged war crimes and crimes against humanity in at least 139 countries. By March 2009, the prosecutor had opened investigations into just four cases: Uganda, Congo D.R., the Central African Republic, and Sudan/Darfur. All of them from Africa! Thirteen public warrants of arrest were issued, all against Africans.

One wonders here whether Africa has a monopoly on crime. Although the jurisdiction of the court covers four most serious crimes of concern to the ‘international community’ as a whole – these being the crimes of genocide, crimes against humanity, war crimes, and crimes of aggression (Article 5), by implication, I agree with Palayiwa that it seems the use of weapons of mass

destruction is not a war crime. Terrorism is not included either, because there was agreement on the definition of terrorism. There are good reasons for excluding these. Who is likely to use weapons of mass destruction? Who is hunting the created terrorists? You can find the answers on your own!

Further, while education is more dangerous a weapon which personally I rank highest among weapons of mass destruction, none can investigate into how crimes against humanity, war crimes, and crimes of aggression have continued to be committed by and/or through education systems tailored for an African. The question that is critical is who tailored such systems? Who is funding them? Indeed, certain animals are more equal than others!

If there is a freedom struggle to be fought fiercely and more seed of blood to be planted, is bringing to an end this propaganda in schools. This vice is the root of the corruption we have built alters for wherefrom to persecute the unfortunate few. For where does corruption start from if not the classroom where children's African cultural code is lost and their moral code is exterminated. Where the philosophy that *I am because we are*, UBUNTU, is mocked. Where the child is taught never to tap into his indigenous knowledge. Where a child is taught to persecute parents for teaching him/her the accepted norms of her own society.

The propriety of the African God-concept is defined as paganism, idolatry and found wanting on the scale of Gods from other cultures. Borrowed Gods from other cultural systems are presented as superior and holy. If the Conversation Neal Donald Walsch has with his God is true that actions are words in motion. Words are thoughts expressed in symbols. Thoughts are constructed ideas. Ideas are energies brought together. Energies are stored forces released. Forces are elements existent. Elements are parts of God Creator, portions of all, the stuff of everything. Then, our actions which create our reality in which we live and evolve are dependent on our God-concept. So is our God-concept dependent on our actions. Once the God-concept is tempered with, all the humanity of a person is altered. And the current education establishment with its foreign religions first demonises our African God-concepts. This makes us vulnerable to all whims of foreign vice which now rules majority of our populations having lost their humanity, their true self engraved in the God-concept abandoned and demonised. This kind of equation for instance helps us decode the biblical gospel according to John that idolises the word saying all was created by the word and without it nothing could be. It is the living word that moves and such movement is the

action. The kind of word that lives in a person is crucial for progress of their livelihood. So what kind of word lives in our educated Africans? Who wrote that word? In what language is it written? For whom was it written?

To be more unequivocal, our so called experts are either non-African or trained in institutions outside Africa which have no time to appropriately deal with matters negatively or positively affecting an African. The science, mathematics and language taught have at least in a way been helpful. By the way, tracing the history of these sciences comes back to Africa – the African Egyptian civilisation. But what is taught as economics, political science, history, literature, religion and philosophy is purely propaganda which then has a backwash effect on the previous faculties which seem to have a positive purpose. Thus, an African graduating from our schools today is a misdirected expert for misdirecting. This is further explained by the fact that in universities, students, of which am an integral part, are taught theories and how to interpret them as worked out by those who have justified segregation and glinted at the economic ignominy of the African to the point of starvation.

When an African graduates in these our colleges and universities, he is a fully fledged foreigner to her own society. Yet he is commissioned to go and serve the very society that he learnt little about. Consequently he fails his people and remains a failure himself lost in a sea of cultural and identity crisis. To serve his country he needs a special group he can interact with which looks at his people as illiterates and uncivilised. The special group feigns to be a fire fighter crew determined to stop the bushfire destroying sacred forests of African societies. Yet, these fire fighters, in the first place, are the ones who set the forests on fire claiming there are viperous and dangerous snakes in them. Thus they only sound alarms not necessarily to put off the fire but to declare that the fire is burning and in no time there will be no more forests with indigeneity. The pressure they exert on the flames is a special petrol chemical to fan the flames because like Lawino's husband, Ocol, in Okot p'Bitek's seminary novel, *Song of Lawino*, people from that special group say

Black people are primitive and
Their ways are utterly harmful
Their dances are mortal sins,
They are ignorant, poor and diseased.

An African graduate thus finds it difficult to serve people that his teachers have throughout his training demeaned, the people in whom he now finds no delight, the race he now considers as an unprogressive. The result is thus telling his society to ape the 'successful' races and aping is nothing but an attempt to fail.

For example even if it is the invaders from outside Africa that are at fault like in the case of the Zimbabwe Land Issue, the African intelligentsia with their 'special group' mentality condemns the pioneering African man who is working hard to liberate his people and himself from the unfortunate situation.

This situation is quite worrying for the African graduate that is writing to you. Just as 'a graceful giraffe cannot become a monkey,' he finds that he cannot be the foreigner he has been trained to be. He cannot think like the 'special group'. Consequently, he suffers the danger of 'developing into a chronic fault-finder and a complainant at the bar of public opinion' just like you can accuse him of doing so now.

The keynote in the education we receive is to do what you are told to do. This is the chief difficulty with our education – imitation, in fact imitating medieval systems – resulting in the enslavement of African minds and unprogressiveness. Somebody outside the continent, who understands fragments at the periphery, has continually desired to try out on Africans some experiment which interested him and his co-workers. And we Africans accepting to be objects of charity have received them cordially and have done what they required. A good example can be derived from Zambia. Once there was the Zambia Teacher Education Course (ZATEC) programme which ill-trained teachers and deployed them across the country at the fastest rate. The results were fatal. The 2015 target of hundred percent enrolment in schools where children who can hardly even write their name in any language are pushed into high school and heaped in one classroom with poor infrastructure, teachers not trained to handle high school but basic and primary school material, is yet to manifest its untold misery. This is because quality has suffered at the hands of quantity – 100% enrolment – just like local agenda has been thwarted and replaced by global agendas of the 'special group'.

Recently, I heard a decree on gayism, homosexuality. This is not a new sexual orientation to the human species. But it is a new law being fought for by the minority practitioners who are seen by some as being sexually disoriented. Where I come from for example, homosexuality is seen as a gender crisis as well as being sick in the mind and lost in spirit. This is a historical social norm with its virtues and vices. Now given that what the current establishment of education does is to kill local culture and introduce action of impulse and instinct crowned as intellectuality and rights, homosexuality is being championed by intellectuals using the rights based approaches. There is no effort to foster a dialogue that interrogates both the new and the old in order to reach a rational understanding. You see, intellectuality without cultural consciousness that fosters the bearer's cultural front, just like human rights that dehumanises indigenously defined humanity of the people in question without the consent of their majority, is

foolishness and tyranny of its highest order. To exemplify this foolishness, some intellectuals are pioneering studies to create evidence and prove that some of the African historical icons like Shaka Zulu and Queen Nzinga practiced gayism. Some have taken the religious route to prove that the Christain Jesus Christ of Nazareth had sexual relations with both his male and female disciples. My sweetheart, the question is not about who practiced what and where. For me, the question is what kind of a society do we desire to create: is it a rights based society, religious society, jungle society or integrated society. It is the kind of society we desire that we use education to create in the minds of people. We need to define that first. If it is a society of gayism, so be it. But our politicians with their technocrats are not asking this question. Soon and very soon, we will introduce gay studies currently being taught elsewhere to be adopted by our education systems especially that some donor aid is now tied to homosexuality related issues. As Africans, we have long lost the script of our priorities.

The danger of imitation and doing only what you are told no matter how successful it can be done, lies in the fact that me as an African I will simply be doing what others have been doing. The gifts and potential powers of originality will remain undeveloped hereby making the world always ask what me, an African, I am good for. Although I am being daily forced more and more by patronage, tribalism and other unprofessional feats into a world peculiarly of my own, my unusually perplexing status is given little or no thought, and I am not considered capable of thinking for myself, simply because I am an African.

You will be surprised to learn that an African like myself with sufficient thought to construct a programme of my own is undesirable, and the education system of our countries generally refuse to work through Africans like me in promoting our cause. I had been earmarked for a staff development fellowship programme by university. Simply because I asked questions, simply because after attending to a class students refused to be attended to by a senior lecturer but me, simply because I refuse to belong to gossip networks given to all manner of nepotism, tribalism and triviality, the whole lot of a head of department conspired with a clique of his fellow gossipers to not only make disappear my documents but create a rule specifically to stop me from becoming a member of staff in the department. Yes, they have succeeded for now, but they have only given momentum to an inevitable change that an executive force that is revolutionary in mind, not evolutionary, and transformative in action, not conformative, will foster for the uplift of our country and Africa as a whole.

At the moment, majority of us educated Africans despise hearing issues of pan-Africanism, race consciousness, African arts and culture or tapping into the African roots. I agree with those who say we should not be blamed for that

because the courses we were taught did not include consciousness but passivity, the did not promote Africanness but anti-Africanness. Moreover, you may hear us telling you that “a tiger does not praise its own tigritude for it to be known that it is a tiger.” You might hear us call any African consciousness as antiracist racism hereby questioning why should then Africa blame some parts of the world for racism if she is doing the same. You know, what such cynicism fails to perceive is that an African is forced into this position by those same parts of the world. It fails to see that children in those parts of the world from birth are told that Africans are nonentities, kins to poverty and disease; they are bred to be hewers for them. Thus, to extricate an African child from a context gripped by such misleading dogmas, a more subtle dosage is required to be administered. Suffice to say every continent and region has its own idiosyncrasies and it is such which constitute unique gifts that must be developed for each sect to validate its inalienable right to exist. There must not be one continent or country that should dictate to the other what to do in the name of being superior or civilised. What is civilisation anyway if not the harmony of civilisations?

I have come to the realisation that the education I received did not teach me how to think and reason. It simply presented some facts of history. I also realise that in those facts presented, I only found out what other people did and then am expected to repeat that which they did. Yes, my teachers where right when they said what Europe and America has done for instance we can do. But they are wrong however in failing to realise that what others have done we may not need to do. The agenda of America and Europe is far from being an agenda Africa should adopt because, for instance, part of the American and European agenda is to dominate, intimidate and suppress Africa for their benefit. It is not surprising therefore that Africa is at war with herself because of adopting such agendas.

To that score, I am convinced that our education failed me much as it is failing others, and disastrous so, because in our present predicament, Africa is in need of vision and invention to give humanity something new. The world does not want and will never have heroes and heroines of the past. What we need is an enlightened youth not to undertake the tasks like of the past but to imbibe the revolutionary spirit of our great ancestors and answer the present call of duty with equal nobleness of soul.

I will equally be a failure like the system that trained me if upon realising this I keep lamenting instead of taking the tools out of my bag and open my book of self made rules to reshape the sculpture and culture that has been disfigured for and by centuries of racism, slavery, colonialism, capitalism and socialism. I would also be a failure if I continue to blame others and find faults in others as

well as imagining the existence of conspiracies out there instead of using such energies to rework my present to win the future.

We should accept that needs of generations vary, individuals are not duplicates the one of another. This dictates that we learn of who we are and the people will serve. Yes we should study the records of Bismarck and Napoleon, but this should only be for the sake of acquainting ourselves with what others have done not making it a measure of our success and intelligence as is the case. As long as we continue to value history that is not ours, languages that are not ours, attributing our civilisation to wrong ends, we should expect to be left out of the great scheme of things as they concern we Africans of today.

Did you hear the massacre of Africans by Africans in South Africa? We are killing each other because of employment and because of the colonial borders that define us. Both entities of reasoning are created by education. It is our schooling that teaches us we are in it so that we can get employed. This is how deeply low our education has made us sink. I look around and mourn seeing how we have been made to be satisfied in this trivial pursuit of life – being employed and cry because of unemployment to a point of killing our own brothers and sisters. To me, unemployment is not a problem. Unemployment is an outcome of a problem – mindset created by education. The concept of employment try to suggest that there is no work to do and value creating work for that matter. It also try to suggest that the value of work is money. You see, unemployment therefore is and is a result of alienating people from their sustainable and innovative way of productive life and rational thinking for purposes of enslaving and colonising them. The alienation turns people into parasites, in fact, leeches feeding on a system, a corrupt system which robes people of their ingenuity, indigenous principles, values and dynamism including their inalienable rights in many instances. As a result, the people, the alienated people, end up hanging around anybody or anything devoid of any principle or value but in hope of gaining or finding some advantage, in this case, just for a dime.

Look at our country Zambia! Look at its shanties: Kalingalinga, Kanyebele, Kandabbwe, Luangwa, Chimwemwe, Chawama, Chibolya, Busakile, Shanghai, Zambia compound, Chipata compound and all their equivalents across the country. These are colonies that the current system is perpetrating as sources of slaves to work in political plantations so called political parties. We have the MMD plantation, UPND plantation, the PF plantation, NAREP plantations and many others masquerading as democratic agents of change, trade unions and charity organisations. In these plantations there are slave owners, colonial masters, for which the people, our people, are working based on no values, principles or ideology but a mere hope of gaining something, some small

advantage. To survive you have to be a sell out working against the common collective. The so called educated are mere functional illiterates being used to justify these vices. Our people are enslaved there, they have been robbed of their humanity, conscious and dignity. Their rights are infringed every day in these slave quarters, political plantations, concentration camps of the present age. They have no right to good water and sanitation, better housing, quality medical facilities, justice, healthy food, 24hrs supply of electricity and security. This is a scum, the slum that has been institutionlaized.

You see, where there is no vision and ideology to realise it, people perish just like they do perish for lack of knowledge. Whatever our challenges were, are and may be, as Woodson Carter once noted, in order to address them, we do not need unprincipled leaders without ideology whether young or old. What we need are workers who will solve problems that leaders talk about.

So it is not slave plantation leaders called politicians that will end unemployment, it is the change in the education configuration that will develop progressive minds, mobilise the peasants, re-educate our current intellectuals and workers, productive workers, who can solve problems that politicians talk about and are using to justify their existence.

Examine the present quandary of economic decadence we are in. There is no occupation for which one may be prepared with full assurance that he will find employment. Employment opportunities which you can have today may be taken from you tomorrow. This should be evidence enough to you that the education system, changing the curricula in a hit-and-miss fashion, has found itself on the wrong track just as it has been for generations. The theories I spent years memorising have proved inappropriate for my plight. Yet, more of my people are sending children to the same schools I have been to. I am teaching in the same schools.

I look at myself and ask what is out there: the exploiting preacher, the unprincipled politician, the notorious gambler, the economically malnourished teacher tasked to miseducate, and the great agent of vice are all there purposely misleading our people who have not as yet shaken from their minds the shackles of slavery.

As you walk in this life, somebody called Harvel (1992) wrote, you will find that there are those that are convinced and have convinced the world that 'their scale is nature's own scale and therefore any other scale must in the nature of the scale

be more barbaric and less perfect'. Such are people who framed our education system. Indeed such are men and women that a learned Africa man called Woodson (1933) said understand too well that when you "control a man's thinking, you do not have to worry about his actions. You do not have to tell him to stand here or go there. He will find his proper place and will stay in it. You do not need to send him to the back door, he will cut one for his special benefit. His education makes it necessary."

I read somewhere and have seen in reality that 'as human beings, even though we occasionally have clear insight that something more is going on in life, our habitual way of thinking is that to consider such ideas unknowable and then to shrug off the awareness altogether.' In any case, I have failed to ignore this eternal light shining in me. And my search for you, so I have perceived and understood, though at times I feel totally lost and bewildered, unable to decide which way to go, is a godly design to clarify something in my life. Each time I write this diary, I become more aware of you the object of my search so intense and inspiring. Without need for a special appeal to counter the pain suffered by others, caused by the personal circumstances and tragedies that life occasionally imposes on all of us, and summoning our age-old values of ubuntu system, the hope and conviction that you are there provides me with steadfast commitment, concern and care among other indispensable arsenals, which make me faithfully continue to run the marathon of this fight.

In whatever you do, see more beauty, project love and let your insight be increased and for you the Gods will open.

Adieu,

Changamire M'zizi

Appendix 4: Southern African Institute of Postgraduate Studies (SAIPS)

SOUTHERN AFRICAN INSTITUTE OF POSTGRADUATE STUDIES (SAIPS)

Concept Note

Introduction

Following the increased need for meaningful research in order to foster development and socio-economic equilibrium relevant to our continent and finally contribute to the World's Sustainable Development, it has become imperative that focus on research be optimised and various scholars come together to do so. The occasion for an institute that will focus on postgraduate studies in Africa has been long overdue. The continent has remained in need of its own people who are already culturally aware and rooted in the ways of their people to specialise and get expertise in respective areas of development. Today, the world is calling upon people in respective regions to evolve programmes and systems that suit their own environment. It has been ironic for Africa because most of its leading universities have been curved out from and using medieval European systems. Best African scholars are usually sent to foreign universities that do not necessarily place the African situation at the centre but periphery of their courses of study. Many Centres for African Studies outside Africa focus on the history which always portray Africa as a victim and bundle of squalor that "developed countries" have to get rid of soon or later as they find it practical. Such centres do not focus on contemporary Africa and possibilities of its future as a self-sustained sub-region. It is with this in mind that the institute which can and will generate and organise Africa's largest post-graduate inter-university networks where world renowned scholars can intercourse with African scholars and experts, is here presented.

Areas of focus

The Institute will be a frontier of knowledge and understanding where research, rooted in indigenous knowledge systems, places societal progress and innovation at the core of the web of learning systems and both the student and the professor are learners in search of, and process of creating, solutions with local communities. Covering a variety of subjects ranging from education, humanities, social sciences, natural sciences, engineering and technology, among others, all

research will be targeted towards Africa's needs primarily and secondarily, the rest of the world. Poverty, economic development and growth, education about and for survival and sustainable development, literary and cultural development and integration, political realisation and economic emancipation and their related areas will be topics of focus tailored as interdisciplinary programmes.

Degrees

The institute will confer both degree and non-degree qualifications to candidates. Degrees will include Masters and Doctorates while non-degree qualifications will include postgraduate diplomas, certificates and exchange completions.

Partnerships

The Institute will partner firstly with Southern African universities that will be responsible for teaching and research. Suffice to say the teaching and research of the Institute will be largely through global professional networking for a more operational and wider academic discourse.

All candidates to be admitted to the Institute will firstly have to have been admitted in their local (SAIPS-affiliated) university. All direct applications will not be considered except for non-SADC and other foreign universities. These will be given a space of 20 percent of total enrolments. All other applicants will still be expected to carry out research on SAIPS oriented areas.

Other partnerships will be made with similar institutions in other continents and outside SADC even though these will be expected to visit the institute for not more than three weeks per four-month semester to administer lecturers and be involved in seminar presentations.

All admitted candidates will be expected to be attached in their mother university-approved institutions for a period of lasting no more than six months prior to completion of their programmes. This applies only to degree candidates.

The chief funders of the Institute will be governments of partnering universities. Even though the Institute will be based in Zambia, all participating countries will contribute equally and will benefit equally.

Support apart from being financial will also be expected to come through their contracting professionals from abroad to collaborate in the programmes.

Appendix 5: The GKI Global Network

Core Group



Dr. Lynn Ilon
Seoul National University

Dr. Lynn Ilon is a full professor in the College of Education, Seoul National University in South Korea. She is a knowledge economist with a specialization in international development. Dr. Ilon has lectured and consulted in over 20 countries for the World Bank, Harvard University, the United Nations, Educational Testing Service, the U.S. Agency for International Development, Department for International Development (UK), the Asian Development Bank, the African Development Bank, UNESCO, several national governments and their agencies and several local and global NGOs. Dr. Ilon has lived in various parts of the world including the Middle East, Pacific Islands, North America, various countries in Africa, South Asia and now in Korea. She holds degrees in International Development Education (Ph.D), Economics (M.S.), Educational Research and Statistics (M.S.) and Anthropology (B.A.).



Dr. Costantine Malama is a medical virologist with extensive experience in clinical and community medicine and program management. He has worked as a resident Medical doctor for hospitals in both the rural and urban settings in Zambia. In addition, he has experience working with community and hospital based HIV/AIDS programs in the southern, Central, North-

**Dr. Costantine
Malama**
Global Knowledge Institute

western and Lusaka provinces of Zambia for over eleven years. Constantine has experience in conducting surveys and research. He has been part of a team working on a Public Private Sector Partnership, providing HIV/AIDS care to under-served rural communities through mobile HIV/AIDS clinics. He holds degrees in Biological Sciences-Virology (MSc.) Science Medicine and Surgery (MBChB) Human Biology (BSc) and Biology and Chemistry (BSc).



M'zizi Kantini
Global Knowledge Institute

M'zizi Samson Kantini is a Ph.D. candidate at Seoul National University (SNU) in the Republic of Korea. He specialises in the economics of knowledge in education and development and applies this specialty in low resource environments. His scholarly work centres on how lifelong learning flows of knowledge through local and global networks, culture and technological literacies, education and political systems bridges the divide between the worlds of rich and poor, and theoretical and practical. He has done academic, research, translation, capacity development, monitoring and evaluation, work for local and international institutions within Zambia, SADC region, United Kingdom and Korea Republic. Kantini holds degrees in Arts with Education (BAEd) and Education and Development (MEd) he both earned from the University of Zambia (UNZA).

Juseuk Kim is a PhD candidate in the College of



Juseuk Kim

Seoul National University

Education with Master's degrees in Social Education, International Studies and MBA (Master of Business Administration), and Bachelor's degree in Political Science. He specializes in HRD, international development and business management. He was a business analyst in the LG Electronics Corporation (France) and conducted international development projects in KDS (Korea Institute for Development Strategy), KRIVET (Korea Research Institute for Vocational Education & Training), UNESCO - IBE (International Bureau of Education, Switzerland) and KERIS (Korea Education & Research Information Service). He has supported or managed international HRD projects for Ministry of Education Korea, KOICA (Korea International Cooperation Agency) and UNESCO including Sri-Lanka, Mongolia, Laos, Pakistan and the Arab region.



Patrick Chilumba

Global Knowledge Institute

Patrick Chilumba is a development economist with wide ranging professional experience of over 8 years. His experience covers many aspects of development including agriculture, monitoring and evaluation, human development, poverty, social impact assessment, HIV and AIDS, social security and vulnerability assessment, and water and sanitation, to mention a few. He has conducted many studies and has a track record in human resource mobilization, supervision and liaising with a wide range of actors. He has worked

with many SMEs at various levels including capacity building and facilitation. He has worked with many non-governmental organizations and other development partners (organizations) including USAID, the World Bank, Food and Agriculture Organization, and DFID among others. Mr. Chilumba is a key associate in Nangoma Consult Limited.



Dr. Jörn Altmann

Seoul National University

Dr. Jörn Altmann is a professor for Technology Management, Economics and Policy at the College of Engineering, Seoul National University. Prior to this, he taught computer networks at the University of California at Berkeley, worked as a Senior Scientist at Hewlett-Packard Labs, and has been a postdoc at EECS and ICSI of UC Berkeley. During that time he worked on international research projects about pricing of network services. Altmann received his B.Sc. degree, his M.Sc. degree (1993), and his Ph.D. (1996) from the University of Erlangen-Nürnberg, Germany. Altmann's current research centres on the economics of Internet services and Internet infrastructures, integrating economic models into distributed systems. He also served on several European, US American (National Science Foundation), and national panels for evaluating research proposals on next generation networks and emerging technologies.



**Dr. Srinivasa Rao
Satti**
Seoul National University

Dr. Srinivasa Rao Satti is a professor in the School of Computer Science and Engineering, Seoul National University in South Korea. His research areas include data structures and database indexing. Dr. Satti has obtained his Masters and PhD in Theoretical Computer Science from the Institute of Mathematical Sciences in Chennai, India, and has worked as a researcher at University of Leicester, UK, University of Waterloo, Canada, IT University of Copenhagen, Denmark, and Aarhus University, Denmark before joining Seoul National University.



Dr. Gwen Benson
Georgia State University

Dr. Gwen Benson serves as the associate dean for school, community and international partnerships in the College of Education at Georgia State University. She previously served as coordinator of the Low Incidence Disabilities Unit of the Division for Exceptional Students in the Georgia Department of Education; director of educator preparation for the Georgia Professional Standards Commission; and director of the Program for Exceptional Children with the Atlanta Public Schools. She currently serves as the principal investigator for the Network for Enhancing Teacher Quality (NET-Q), a collection of projects funded by a \$13.5 million Teacher Quality Partnership grant from the U.S. Department of Education designed to prepare teachers for the demands of teaching high-need subjects in high-need schools. She also works to sustain the

COE's professional development school network, facilitates international outreach and partnerships.



Dr. Susan L. Ogletree
Georgia State University

Dr. Susan L. Ogletree is Director of the Educational Research Bureau in the College of Education, Georgia State University in Atlanta GA. She is a research methodologist with school leadership credentials. She is interested in the implementation and evaluation of the Professional Development School Model in both the U.S. and South Africa and the model's impact on academic achievement in high needs urban schools. Dr. Ogletree has worked with Ela Gandhi and the Gandhi Development Trust, Durban University of Technology and Stellenbosch University. She holds degrees in Educational Policy Studies – Research, Measurement and Statistics (Ph.D.), Educational Leadership & Professional Counseling (M.S.) and Music (B.M.)

Strategic Group



Dr. Annie Pedret
Seoul National University

Dr. Annie Pedret is an associate professor in the College of Fine Arts, Seoul National University in South Korea. She is an architectural historian with a specialization in modern and post-World War II architecture and town planning, and an interest in ethics in architecture. Dr. Pedret has lectured internationally and is the author of *Team 10: an archival history* (2013). She has worked as an architect on projects for the Port Authority, Barcelona; King Abdulaziz

University, Saudi Arabia; Bird Sanctuary, The Gambia, and Expo'86, IBM and Royal Bank, Canada. Dr. Pedret has travelled to and lived in various parts of the world including Europe, Africa, India and now lives in Korea. She has taught architectural history and design at the Illinois Institute of Technology and University of Illinois at Chicago. She holds degrees in Architectural History and Theory (Ph.D., S.M.Arch.S.), Architecture (B.Arch.), and Science (B.Sc.).



Heewon Lee
KAIST

Heewon Lee is an industrial design PhD candidate at KAIST (Korea Advanced Institute of Science and Technology) researching effective and sustainable ways to design appropriate technology and services. He is also a full time designer & researcher at the ID+IM Laboratory where he designs commercial products for corporations, but is also engaged with social design projects such as the Nanum Project (designing charity products and donating all the profits for low-income family children scholarships), Seed Project (designing for the marginalized people in Kenya), Aluminum Recycling Project (designing safer & efficient furnaces for recycling aluminum in Zambia), founder of the Wesource Map Project and founder of the Design for Development Design Workshop. He was a participant at IDDS (International Development Design Summit) 2013 Zambia and was a design facilitator at IDDS Tanzania 2014.

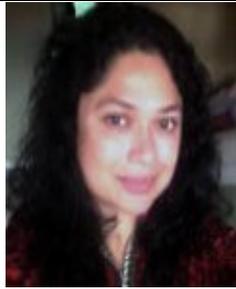


Dr. Theresa Cho
Seoul National University

Dr. Theresa Cho is a Professor of Strategic Management and International Business at Seoul National University Business School, as well as Associate Dean of International Affairs. Since 2014. She received an A. B.(with honors) in Economics from Harvard College, Harvard University, and received her M.Phil. and Ph.D. (with distinction) in Strategic Management from Columbia Business School, Columbia University. Professor Cho's expertise is on strategic management, with a particular emphasis on the role of managerial cognition and corporate governance on organizational processes. She has published extensively in several top-tier scholarly journals on topics such as the role of managerial cognition in strategic response to an environmental change, the linkage between top management team attributes and the firm's behavior in the interfirm competition, managerial decision-making and M&A's in high-tech industries, and competitor analysis. She has consulted and taught executive education programs at many global companies in Korea and abroad.

Professional Group

Dr. Sonia Mehta graduated from the program in



Dr. Sonia Mehta

Macalester College

Comparative and Global Studies in Education, Leadership and Policy at the University at Buffalo, USA. She has taught in villages, in seminaries, and in higher education in India and the USA. She is co-editor (with Peter Ninnes) of the book *Re-imagining comparative education: Postfoundational ideas and applications for critical times*. She teaches *Education and the Challenge of Globalization and Education and Social Change* at Macalester College. Her research interests focus on international and global studentship and pedagogies of Education, Critical Social Cartography, Comparative and International Studies in Education and the Sociology of Education.



**Gankhanani
Moffat Moyo**

University of Zambia

Gankhanani Moffat Moyo teaches literature, theatre and film at the University of Zambia. He is a PhD candidate studying Dialogism in Zambian literature. He has written and made several conference and seminar presentations on literature, culture and the arts while working with both local and international organizations including the United Nations Education, Science and Culture Organization (UNESCO) Zambia National Commission, Helsinki Polytechnic University in Finland, Australian Institute of Business and Technology (AIBT), the British Council, IDP Australia and the University of Cambridge. His major interests lie in literary theory and criticism, cultural and performance studies, and stylistics. Gankhanani has

degrees at bachelor and masters levels in Arts with Education and Literature from the University of Zambia



**Sitwe Benson
Mkandawire**
University of Zambia

Sitwe Benson Mkandawire is a writer, an academic member of staff and researcher at the University of Zambia. He is multitalented in varying fields such as media personality, film maker, teaching, business oriented and team player. He is currently a Pre-doctoral candidate in Applied Linguistics, Literacy and Cultural Studies. He has Master of Education in Literacy and Learning and Bachelor of Arts with Education degrees from the University of Zambia.



Dr. David Wright
Seoul National University

Dr. David Wright is a professor at Seoul National University in the Department of Archaeology and Art History. He is an anthropological archaeologist with a specialty in long-term human adaptations to climate change. His professional work has been focused in East Africa, the American Midwest and the Native American communities of the American Southwest. He is a Fulbright awardee as well as a recipient of grants from the National Science Foundation, National Geographic Committee for Research and Exploration, U.S. Environmental Protection Agency, U.S. Bureau of Reclamation, U.S. Bureau of Indian Affairs, and the Australian Research Council. David Wright's research connects the lifeways of the past to the present and he is interested in making a meaningful contribution in

sustainable management of the ecosystems people inhabit.



**Dr. Kristina
Dziejic Wright**
Seoul National University

Dr. Kristina Dziejic Wright teaches art history and English at Seoul National University, and works as a freelance curator. She is the author of *Jua Kali Lamu: Art, Culture and Tourism on an Indian Ocean Island* (2009) and co-curator of *Sanaa Makaratasi (African Paper Art): Process, Substance and Environment*, an exhibit of paper-based art at the Nairobi National Museum in Kenya (2012) that included contemporary works from all over the continent. Her research interests include cultural heritage management, connective economies in relation to contemporary art production, and the arts as a form of empowerment for disenfranchised communities. Kristina currently co-directs a project to digitize the collections at the National Museum of Kenya, and is involved in efforts to establish a National Gallery of Contemporary Art in Kenya.

Support Group



Bethel Ghebru is a PhD candidate in the Global Education Cooperation Program at Seoul National University. He has worked as an educational program coordinator for the National Institute for International Education (NIIED) under the Ministry of Education of Korea and as a project analyst for POSCO. He is

Bethel Ghebru
Seoul National University

interested in knowledge and innovation economics as well as educational foreign aid effectiveness. He holds degrees in Physics (BA) from Dilla University, in British and American Studies (BA), in international relations and area studies (MA) and in Korean language and literature (MA) from Kyunghee University.



John Shawa
Global Knowledge Institute

John Shawa is a graduating student in Applied Ethics from the University of Zambia and is also perusing a Master's program with GKI. He is an Applied Ethicist with a specialization in Public Health Ethics. He has worked for both the public sector as well as the private sector. He has tutored and lectured at the University of Zambia. He has participated in a number of local research programs hence his interest in enrolling in the current MScISSED with GKI. He Holds a B.A.Lis, and is about to graduate from an MA in Applied Ethics.



Hyejin Bak
Seoul National University

Hyejin Bak has been a primary school teacher in South Korea since 2006, currently studying as a doctoral student of Lifelong Learning department at the College of Education of Seoul National University. Her interest includes the relationship between education and development, especially continuous learning and network of teachers in terms of roles of education for development. She has diverse experiences in the education field such as an internship experience of fieldwork research about teacher fulfillment related to inclusive education for visually impaired students and

volunteering for IT education and Korean culture class in Ghana. She has an MA degree in International Education and Development from University of Sussex in UK, and Bachelor of Education degree from Chinju National University of Education in South Korea.



Jyoti Palakollu
Seoul National University

Jyoti Palakollu is a graduate in International Commerce from the Graduate School of International Studies, Seoul National University in Seoul, South Korea. She has done her undergraduate in Economics & Financial Management from Wilfrid Laurier University in Waterloo, Canada. She is interested in understanding how businesses can improve their performances and customer base by involving in Corporate Social Responsibility. She helps in website management for the GKA.



Anthony Kabwe
Global Knowledge Institute

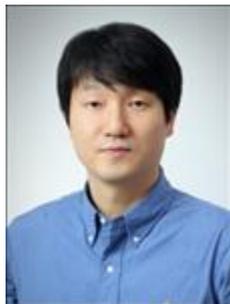
Anthony Kabwe is a master's candidate at the Global Knowledge Institute. He is a writer and board member for African Peace Magazine, a company based in Bedfordshire, United Kingdom. Anthony writes on Development, Economics and Social warfare of societies. He has a number of papers written and presented to audiences like the Zambia Engineering Institute Annual symposium and other platforms. He is accredited to a number of bodies like the IODF (Institute of Organizational Development Facilitators), Engineering Institute of Zambia, etc. He is also a facilitator at Ahava Zambia, a Zambian based company

specialising in management training. Anthony holds a Bachelor's degree in Forestry (Wood Science and technology) from the Copperbelt University, Zambia's second leading public university.



Kent Kamasumba
Seoul National University

Kent Kamasumba is a graduate student in the Graduate School of International Studies at Seoul National University, Majoring in International Cooperation. Since 2011 he has been working in the Office of International Affairs at Seoul National University as an international Student's coordinator. He also holds a Degree of Bachelors of Arts in Economics with a minor in Sociology. He helps assemble the curriculum for delivery to GKI Zambia. He is very passionate about Innovation in fields of Economic development and Education.



Changdeok Hahm
Seoul National University

Changdeok Hahm is a PhD candidate in the College of Education at Seoul National University majoring in Global Education Cooperation. He has been working for the Language Education Institute at Seoul National University as a Korean language teacher. He has coordinated many Korean culture and language education programs for foreigners. He had coordinated and managed 2006, 2007, 2008, and 2012 'Korean culture & Language program for Diplomats from developing countries' and through this experience he became aware of the importance of education

cooperation programs in improving mutual understanding among countries. And since then he has been seeking ways to improve the efficiency of education cooperation programs. He is also interested in developing education application and recently co-developed a smartphone application for Korean Alphabet learning.



Mirriam Simasiku
Korea University

Mirriam Simasiku is a Ph.D. candidate in Policy and Management of Science and Technology, Korea University. She holds M.Sc. in Energy Policy and Applied Development Studies from the University of Cape Town and B.A. in Biochemistry from the University of Zambia. She has worked and consulted for a number of organizations including the Environmental Council of Zambia, Lusaka Water and Sewerage Company, Seoul Metropolitan Office of Education, Korean Digital University, Gyeonggi Education Office and B & J International Academy. Her recent collaborators include the African Energy Policy research network; International Association of Hydrogeologists; Korea Federation for Environmental Movement; International Association of Molecular Biology and Biochemistry; Zambia Association of Molecular Biology and Biochemistry; and the University of Zambia Biodiversity Club.



Sohee Won
KOICA

Sohee Won is currently working as an education specialist at International Development Education Academy of Korea International Cooperation Agency(KOICA). She obtained her master's degree in Education and Development from Seoul National University, and her research focused on how English literacy program is implemented in Zambian basic schools. While pursuing her degree, she helped to set up the GKI Centre for Innovative Learning in Zambia and developed learning modules of Research Methodology course for GKI in 2012. Her areas of concentrations were education policy and its implementation, learning and achievements, as well as educational aid effectiveness. Prior to starting a graduate study, she worked as an academic coordinator for an international school in China for four years. She also holds her BA degrees in English Language & Literature and in Business Administration from Sookmyung Women's University.



Youjin Chun

Youjin Chun is a PhD candidate in the Global Education Cooperation Program at Seoul National University. She holds dual B.A. degrees in English Literature and Educational Studies from Kookmin University (Korea) and University of Oregon and M.A. in TESOL from University of Pennsylvania. She worked as research assistant at Korean Educational Development Institute and as project manager at

Seoul National University

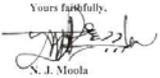
Hanyang University. Her major interests are literacy development and vocational training in developing countries, and knowledge exchange among international students and scholars in higher education system.



Mwanza Christine
Global Knowledge Institute

Christine Mwanza is a *Zambian* educator under the Ministry of Education of the Government Republic of Zambia. Having studied and worked in Zambia and abroad, she possess work experience in imparting knowledge to people of different age groups, social classes, creed and nationality. She is a holder of a Master of Education in International Education and Development degree and has a Bachelor of Arts with Education.

Appendix 6: Certificates of Registration and Incorporation

<p style="text-align: center;">OFFICE OF THE REGISTRAR OF COMPANIES AND BUSINESS NAMES</p> <p style="text-align: center;">Mwayi House, Hale Selassie Avenue, Longacres P. O. Box 32020, Lusaka 10101, Zambia Tel: 255151/255127 Fax: 255426</p> <p>LCO, No. 89817</p> <p>Date: 26th day of January, 2011</p> <p>The Company Secretary Postnet Box 402 Arcades <u>LUSAKA</u></p> <p>Dear Sir(s)/Madam(s),</p> <p>Re: <u>GLOBAL KNOWLEDGE ALLIANCE LIMITED</u></p> <p>I have pleasure in informing you that the above named company has been entered Register of Companies with effect from 26th day of January, 2011 and I therefore issue Certificate of Incorporation No. 89817 for a company limited by guarantee.</p> <p>You are informed to take note of the mandatory post-incorporation procedures.</p> <p>Your attention is further drawn to the provisions of sections 48, 92, 97, 160, 224, 225 and the Act regarding the maintenance of statutory books such as Register of Members, Directors, Secretaries, Debitures, Minute. You are further reminded of the requirements of Part I of the Act regarding the submission of directors' statement of accounts and annual meeting of the company.</p> <p>The consequence of non-compliance is grave and may lead to directors and shareholder prosecuted and your company being struck-off the Register.</p> <p style="text-align: right;">Yours faithfully,  N. J. Moola Assistant Registrar of Companies</p>	<p style="text-align: right;">Companies Form 8</p> <p style="text-align: right;">Company Registration No. 898 Serial No. 124</p> <p style="text-align: center;"></p> <p style="text-align: center;">Republic of Zambia</p> <p style="text-align: center;">CERTIFICATE OF INCORPORATION OF A COMPANY LIMITED BY GUARANTEE (Section 10)</p> <p>This is to certify that GLOBAL KNOWLEDGE ALLIANCE LIMITED is on and from the 26th day of January, 2011 incorporated as a company limited by guarantee.</p> <p>Given under my hand and seal at Lusaka, Zambia, this 26th day of January, 2011.</p> <p style="text-align: center;"></p> <p style="text-align: right;"> N. J. Moola Assistant Registrar of Companies</p> <p style="text-align: center;"><small>(Note that this certificate is not valid unless the official seal of the Registrar of Companies has been affixed)</small></p>
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Appendix 7: Government Official Letter of Recognition

All communications should be addressed to:
the Permanent Secretary to the Ministry of Education
not to any individual by name.

Telephone: 250855/251315/251283
251298/251318/251291
251306/251319

In reply please quote:
No.:.....



REPUBLIC OF ZAMBIA

MINISTRY OF EDUCATION

P.O. BOX 50093
LUSAKA

4th August 2011

Mr. Costantine Malama
Global Knowledge Alliance
Ridgeway Compus
LUSAKA

RE: GLOBAL KNOWLEDGE ALLIANCE (GKA)

I write to acknowledge your letter dated 14th July 2011 in which you wrote to seek official recognition of your organization. My Ministry would like to acknowledge that your intention to build a new design that links masters students within the school of medicine, Ridgeway Campus, is a positive move.

The assumption is that this design would link the students with the local communities and local NGOs, which will culminate into a global network of advanced graduate students and experts. These will work to build robust curriculum and research designs.

In view of the above I am glad to grant you official recognition and further ask you to work very closely with school of medicine.

The Ministry will keep close collaborations with the organization.



Dr. James S. Mulungushi
Permanent Secretary – ESS & C
MINISTRY OF EDUCATION

Appendix 8: MoU Between GKI and UNZA Council

**MEMORANDUM OF UNDERSTANDING (MOU)
BETWEEN
GLOBAL KNOWLEDGE ALLIANCE LIMITED (GKA)
AND
THE UNIVERSITY OF ZAMBIA COUNCIL
THROUGH THE SCHOOL OF MEDICINE RIDGEWAY CAMPUS**

THIS MEMORANDUM OF UNDERSTANDING (MoU) is made and entered into this ²⁷..... day of February, 2012 by and between the Global Knowledge Alliance Limited (GKA) and the University of Zambia Council through the School of Medicine hereinafter referred to as UNZA.

WHEREAS both the GKA and UNZA have expertise in the provision of Higher Education and Research, and,

WHEREAS selected joint efforts between the GKA and UNZA are a collaborative effort to support the provision of, and access to, high quality state-of-the-art Higher Education and Research are determined to be consistent with the goal of each party,

NOW THEREFORE, in consideration of the mutual interests described above, the parties agree to work together in the following manner:

1. NATURE OF RELATIONSHIP

Subject to the terms of this MoU, the implementation and pursuit of the objectives, conditions and terms of this collaboration will be carried out in accordance with the policies and procedures of each party. The relationship between the GKA and UNZA created by this MoU is that of independent institutions working and networking as collaborating Partners.

2. PREMISES

UNZA having offered a working space to GKA hereby agrees to permit GKA to occupy put up necessary infrastructure and operate its Global Knowledge Institute (GKI) at the University Of Zambia School Of Medicine Lusaka Ridgeway Campus. The "Premises" shall refer to the part of this building the GKA occupies.

3. PURPOSE

The GKA hereby agrees that the Premises and any other floor covering products that GKI utilizes in his operation shall be used and occupied solely in connection with its business of Higher Education and Research.

4. TERM

The term of this agreement shall be two (2) years commencing on January 6th, 2012 and shall terminate the last day of December, 2013. The parties involved shall have the right to extend this

agreement for an additional period agreed upon by and between them in writing.

5. RIGHT TO ALTER AND IMPROVE PREMISES.

Only with the express approval of the office of the registrar shall the GKA, at its sole expense, modify the portion of the premises it occupies and to make such alterations or alterations as it deems appropriate to improve the usefulness of the Premises. Such modifications or improvements shall under no circumstances be begun until the office of the Dean of School of Medicine has been presented with the plans for such modifications and has granted express approval of the said modifications or improvements. Further, GKA shall obtain UNZA's consent through the office of the Registrar prior to painting or placing any sign on the Premises.

6. AFFIRMATIVE COVENANTS

The GKA and UNZA School covenant and agree that the GKA shall:

(a) At the termination of this agreement, remove any signs, improvements of a non-permanent nature, projections and devices placed upon the premises at or prior to the expiration of this agreement; and

(c) Secure any and all permits for such use as GKA intends to make of the Premises prior to the effective date of this agreement, and upon obtaining such permit GKA shall not use the demised premises in any manner inconsistent with or in violation of such permit.

(d) GKA agrees to grant to UNZA School of Medicine full and free access to the Premises during reasonable business hours to examine or exhibit the same or to make any necessary repairs or alterations to the Premises.

(e) It is understood and agreed that whenever necessary in the judgement of the parties herein involved, the GKA shall grant to the postgraduate students in UNZA School of Medicine free access to its classroom and learning facilities during reasonable business hours.

7. MoU CONTAINS ALL AGREEMENTS

It is expressly understood and agreed by and between all parties hereto that this Memorandum of Understanding sets forth all of the promises, agreements, conditions and understandings between GKA and UNZA relative to the said premises, and that there are no promises, agreements, conditions or understandings, either oral or written, between them other than as set forth herein. It is further understood and agreed that, except as herein otherwise provided, no subsequent alteration, amendment, change or addition to this Agreement shall be binding upon GKA or UNZA School of Medicine unless reduced to writing and signed by them.

8. PARTIES BOUND.

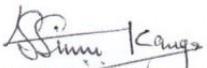
All rights and liabilities herein given to, or imposed upon, the respective parties hereto shall

extend to and bind the several and respective heirs, executors, administrators, successors and assigns of said parties.

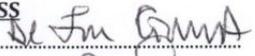
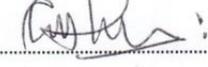
IN WITNESS WHEREOF, the parties hereto have affixed their signatures on this ²⁷..... day of February, 2012.

UNZA:

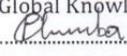
The University of Zambia
Great East Road Campus,
P.O.BOX 32379,
Lusaka.

BY:  signature
NAME: Professor Stephen Simukanga
TITLE: Vice Chancellor

WITNESS

NAME: 
SIGNATURE: 
POSITION: DEAN
DATE: 23.02.2012

GKA:

The Global Knowledge Alliance
BY:  signature
NAME: Patrick Chilumba
TITLE: Executive Director

WITNESS

NAME: KANTINI SAMSON
SIGNATURE: 
POSITION: MANAGER OPERATIONS (GKA)
DATE: 27/02/2012

Appendix 7: GKI Summary Accomplishments, 2011 - 2014

