Framework for the alignment of UNIZULU core business

[BUILDING UNIZULU IDENTITY]

[Penultimate Version]

For Discussion

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1. Introduction and Background

This framework document seeks to explore some imperative strategic choices of a university located in a rural area facing many challenges. The University of Zululand (UNIZULU), along with other Higher Education Institutions (HEIs) in South Africa, is called upon to critically examine its social role. Mekoa (2018) puts it starkly that universities have an obligation to society in which they are established. In a similar vein, but making a special plea for universities like UNIZULU, Swartz (2008) makes a call for rural based universities to play an active role in the development of surrounding communities, adding that such universities should enter into a 'social contract' with society designed to achieve impact in their environs, wider society and contribute towards achieving national goals as captured in the National Development Plan (NDP); international agendas such as Africa Agenda (AU2063) as well as the United Nations Sustainable Development Goals (SGDs). The project of forging mutually beneficial relationships between the university and local communities can be as complex. Complexity aside, the problems that partnerships seek to address depend importantly on how they are structured and managed.

Traditionally, much like other complex institutions, universities tend to work in silos as they execute their mandate of the academic trinity of research, teaching and community engagement. Yet problems and challenges, especially the other social trinity of unemployment, inequality and poverty, are multi-faceted (UNDP 2019). This fact, for a rural-based university, calls for a re-imagining of the ontological and epistemological basis of the entire academic project. It also calls for a thoroughgoing analysis of the context leading to the formulation of a strategy that structures it for relevance.

2. Philosophical Foundations

The question of what constitutes the purpose of university is framed within the notion of 'core business'. For our comprehensive university, this term encapsulates research, teaching and community engagement. This conceptualisation has, however, been viewed as problematic. For it has been observed that delivery decision makers often juggle with a myriad of competing agendas that lay claim on limited resources (Ivancheva & Morris

2018). What trajectory a university decides to excel in, and allocate resources to, is a function of the philosophical orientation of decision makers. In other words, the purpose of a university cannot be seen as value-free. There is, therefore, a need to spell out and to deliberately anchor locally accepted practices on explicit ontological and epistemological foundations in order to ensure strategic focus and the promotion of social impact. This may also be done by taking into serious consideration our historical responsibility to address larger moral, socio-political and economic issues including unemployment, starvation, inequality, political repression, crime and etc. that still face, particularly, third world settings in a traumatic manner.

2.1. Mapping the ontological and epistemological basis for university education

In Africa, the line was never straight. The colonizers of the continent developed universities, as all else it should be said, not to respond to African needs. Instead, the vision was to pursue European colonial *ideology*. African culture was very largely destroyed by wars and slavery. African languages were never used in any of the universities. There was, not contested in any serious literature, the virtual destruction of a diverse continental identity. Firmly regarding itself as superior to Africans and African ideologies and beliefs, higher education, in colonial Africa, for instance, did not talk directly to the needs and history of the continent (Woldegiorgis & Doevenspeck, 2013).

In recent years, the public function of universities in South Africa has come into sharp focus, not least by its primary student stakeholders. It has been argued that the South African education system is trapped in a quagmire inherited from the continuities of the colonial, segregationist and apartheid eras. The hashtags 'Rhodes must Fall' and 'Fees must Fall' and calls to decolonise the curriculum of 2015 and 2016 expressed radical discontent and were calls for genuine transformation (Mutekwe 2017; Marx 2017). In these campaigns, calls to transform curricula loomed large.

2.1.1 Ontological Questions

In response to the call for educational reform in South Africa, the state moved to implement fee-free higher education. On the academic front, universities, by and large, continued to deliver curricula broadly reflecting western understandings of what constitutes *being* (or existence) and the nature of *reality* (Ladyman 2007). In other words, western ontological conceptual frameworks shaping understandings of nature and the human condition have persisted. Over time, various ontological positions in the western tradition have been espoused and become dominant. The philosophy of science aside, suffice it to depict this tradition as a continuum. On the one hand are ontologies which see the world as objective, measurable and external, while on the other there are those that see the world as socially constructed and capable of deconstruction by the human agency.

Against ontological positions that originated in western intellectual thought are a growing number of African scholars who have called for debunking the influence of the Western World as the universal standard (Ebo 2018 p 65). Instead, an African ontology or African ontologies need to be rooted in African philosophies, striving towards "...a world-view and thought systems from African and some African-inspired thinkers..." (Chemburu 2016 p 90). It is argued that these thought systems have a particular way of conceptualising reality, based on communalism, as contra-distinguished from Western philosophy which is predominantly individualistic in outlook (Ekanem 2012). The sub-Saharan African concept of *Ubuntu*, captured in the statement "...I am because we are, and since we are, therefore I am..." (Menkiti Google), simply meaning humanness, humanity or humanitas, cannot be achieved outside of community. Indeed, major western thinkers decried their loss of community. Now revitalised, yet in continuity with a fractured past, this idea, arguably born in Africa, is often cited as the quintessential African ontological position. It is on this basis, inter alia, that the education renaissance can be pursued. This would involve grappling with such questions as: What would a communitarian-based curriculum look like? What teleological issues in such a curriculum would need to be addressed (Chemhuru 2016)? In this case, one of the approaches would be tapping into African intellectual archive as well as the ontological narratives and discourses of the African people and those in the Diaspora.

2.1.2. Epistemological Questions

It is generally accepted that universities are hubs of knowledge generated via research and teaching (Kaya1 & Burak Erkut 2016). What is contested, however, are epistemological questions concerning the very idea of knowledge. How *do* we know what we know and who defines what counts as knowledge? Similar questions concerning South African Education have been posed by Mekoa (Ibid p 98):

- Whose interests does a particular education system serve?
- Who determines what constitutes knowledge or curriculum?
- Whose values are transmitted through the education system?
- Does education foster unity or diversity in the society?
- Does it also foster equality, democracy and justice for all?
- Does it foster liberation and resistance or passivity?
- Does it develop or under-develop its subjects?

Such questions are posed against the backdrop of the work of a growing number of African scholars. Contemporary hashtag campaigns refer to these and related issues. At issue is what many have highlighted what they see as the Eurocentric 'book of knowledge' being taught in South African and African universities. As a result, Africa has seen an accelerating debate demanding Africanisation of Higher Education to confront Eurocentricity and its legacy born of colonialism, segregation, apartheid and continued in our contemporary western marketised and commodified global society. Clearly, 'this debate can no longer be ignored' (Botha, 2010).

It is worth noting that the call for the Africanisation and indeed the humanisation of Higher Education often remains heavily embedded within and is highly characterised by political, cultural and social paradigm shifts; for notions of opposition to 'Western supremacy' were left behind by colonisation and apartheid (Botha, 2010). Despite, 'the extensive reconstruction of higher education' (Symes and Hall, 2005) in South Africa, a call for Africanisation, however construed, is a clear indication that more still needs to happen to transform curricula in order to accommodate the South African context. Simultaneously,

we cannot lose sight of what is happening in other African countries and internationally. The current content in our universities, however, still largely favours currently dominant western epistemic frameworks and continues to make the lives of our students difficult – alongside many in the global South; for their experience all too often does not relate with or find expression in the concepts that are taught.

2.2. Beyond Western-oriented education paradigms

The brief indications of ontological and epistemological issues and questions raised above invite how western epistemologies have been expanded and indeed, transcended, by approaches of African scholars. One example is the educationist and politician, Julius Nyerere -- called *mwalimu* or teacher. Nyerere advocated co-operative endeavours rather than individual advancement in teaching and education. He emphasised equality and responsibility. Nyerere's approach resonates with the African philosophy of *Ubuntu*. The high value of care for others and cooperation transcends individual advancement as core pedagogic principle (Brock-Utne 2017). The need to move beyond western narratives in education is intended to foster an African Renaissance of rebirth and reclamation. This, it has been argued, is necessary to rediscover forms of traditional African education which regarded human dignity as an inalienable right (Sesanti 2019). When contemplating reform of the education system in general and transformation of its curricula in particular; the ontological and epistemological questions merely raised here must not only be borne in mind. They must also trigger new imaginations around emerging Afrocentric worldviews or what may be referred to African cosmologies. Moreover, triggering new imaginations would also mean transcending beyond mere talks but getting into doing the real business of producing and advancing the African-centred knowledge. Taking into serious account the fact that:

"Africa is a huge continent with a diversity of cultures and languages. Africa is not simple – often people want to simplify it, generalize it, stereotype its people, but Africa is very complex" (Chinua Achebe, 1964 cited in Ngugi Wa Thiong'o's 1964).

UNIZULU has been legislatively and institutionally constituted as a comprehensive university. Such an institution is required to span primary research, applied intellectual labor and practical community-sensitive expertise, where knowledge is co-produced collaboratively with its community partners; that allows for collaborative reflection. UNIZULU can commit to deliver balanced educational perspectives and orientations with special focus on its student *graduateness*. Its outlook and focus, for its youthful sixty years, has always been, by natural default, Afrocentric. Whether in its origins or its present and possible futures, it has consistently drawn on and developed especially local minds for local and regional development. It remains open to selecting those who enhance its vision. Its rural context places it in a unique position to do this.

3. The Rural Context of UNIZULU

The location of the University of Zululand in the rural area can be seen as both a challenge and an opportunity. What is required to unlock the potential of what can be achieved is a thorough analysis and understanding of rurality and rural context as well as the nature of the university's characterization as a comprehensive Higher Education Institution.

3. 1 Exploring the Comprehensive nature of UNIZULU

The UNIZULU Strategic Plan (2016-2021) committed the institution to leveraging its rural location and comprehensive character to achieve its goals. The identity of UNIZULU as a comprehensive university, however, has continued to generate conceptual debate that frames the planning for the future delivery of the its core business. In 2004, the Department of Education produced a concept document which sought to elaborate the term 'comprehensive' as used to describe higher education institutions. What emerges from the document is the issue of nomenclature when Comprehensivity is applied to a variety of institutions with different organizational arrangements. Given this difficulty, the Department leaves it to the individual institution to work out its own understanding of what a comprehensive university would entail given their own unique contexts and circumstances.

At an indaba focusing on rurality and comprehensively, the then Deputy Vice-Chancellor of Teaching and Learning at UNIZULU proposed a conceptualization of Comprehensivity in terms of four quadrants in Figure 1 below.

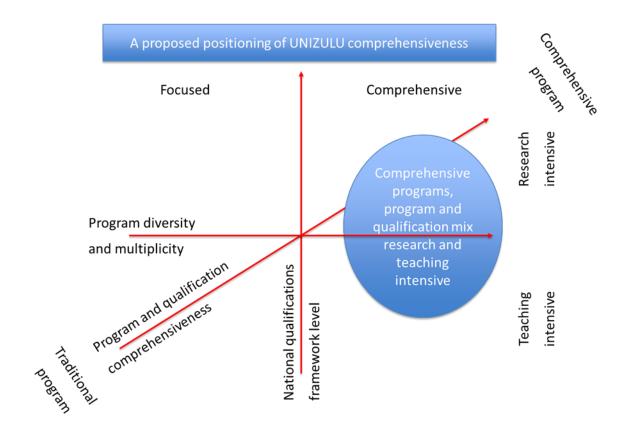


Figure 1: Source. Sonqca (2018) Indaba on Rurality and Comprehensivity

As can be seen in Figure 1, there are various issues that the University can work out. That is, the development trajectory of the university is one that moves from offering traditional programmes towards more comprehensive programmes that blend programme qualification mix that is research and teaching intensive.

In a similar vein, Mahlomaholo (2019) puts forward some concrete suggestions of how to achieve comprehensivity, having in mind offerings which are aligned to the expectations and goals of the South African National Development Plan and which are central to Government's Human Resource Development Strategy. These include the development of:

 A variety of career focused programmes with different entry requirements from which students are able to choose.

- Improved articulation between the career-focused and general academic programmes which facilitate student mobility between them.
- Strengthening the applied technikon-type research together with current research strengths at the University of Zululand.
- To respond to the social and economic needs of the society in general and the environment in which the University of Zululand is situated.

In order to avoid costly mistakes, efforts to establish a comprehensive university in South Africa have to be aligned to lessons learned from international experiences which strike the balance between access and success.

3. 2 Conceptualizing Rurality

The term 'rurality', like many concepts in social science, is contested and inherently unstable. Words that refer to complex areas of human life cannot be reduced to simple, fixed and unambiguous definitions. It has been argued that 'rurality' is slippery and conceptually empty, but is a vigorously debated empirical reality (Van der Ploeg 1997). Such concepts will always be subject to exploration, speculation and debate. The complexity of the concept of rurality is partly captured by Balestrieri's (2016) characterization of the concept as 'transversal' and 'relative'. Various disciplinary fields such as geography, sociology and economics tend to define it differently. Ramadiro and Porteus (2008) approach the concept from the premise that it is useful to describe what is rural in relational terms. They argue that "...In so far as the 'rural' and urban exists in any essential way in South Africa...they probably cannot be described outside the other...the rural creates the urban and the urban creates the rural - in a complex and unequal way..." (p 36). While the discourse of co-creation can be found in the work of many scholars from different disciplines, Moletsane (2012) warns that comparison of rurality with urbanity should not ignore the fact that the former is dynamic and has value and strength independent of the latter. Notwithstanding the elusive nature of the concept, scholars have attempted to pin it down to identifiable, though contested dimensions.

3.2.1. Dimensions of Rurality

Chigbu (2018) has identified five dimensions of rurality. They include the ideas of place; people; livelihoods; governance and socio-psycho-rural perceptions. The relationship between the five elements is what forms rurality. For Chigbu, place, where people live or *habitus*, is a culturally defined space or spaces with natural and physical features. Rurality thus hosts traditional cultural, social, economic, environmental and political activities. Place constitutes the immobile, that is, the not transferable, natural habitat of people who live in what are defined as rural areas. The concept is given meaning by collective lived experience. It has similarly been argued by Children (2002) that the "sense" of place is critical to individual and communal identity.

As implied in the idea of rural space, rurality marks the dimension of *people* or human populations who live there. People participate in community life. They interact with others within created rural space and outside of it. They may share common histories, traditions and cultures. Within this milieu, there still remains what fundamentally distinguishes the rural from the urban. The rural, following pre-colonial society, is predicated on *abantu* (people). This departs fundamentally from the focus on what followed indigenous African society, namely colonial and apartheid, racial capitalist society, which has *izinto* (things) as its predominant preoccupation (Guy 2013).

People in a particular geographical area continue to possess what has been called Indigenous Knowledge systems (IKS) passed from one generation to another. IKS has been defined as the totality of "...all knowledge and practices, whether explicit or implicit, used in the management of socio-economic, spiritual, and ecological facets of life" (Odora Hoppers 2008 p 29). With this knowledge, given certain conditions, especially rural-based communities exercise individual and collective agency to resist social forces negatively impacting on their circumstances. Survival, independent development and self-defined change for the better are the outcomes. Casualties are borne in ways urbanites cannot comprehend. Historical instances of huge import attest to this character of the rural, whether elsewhere or locally. In short, the 'people factor' is central to any understanding of rurality. For a university located within the rural space, such as

UNIZULU, it is important to ask central questions of what and how knowledge projects ought to interface with living and yet to be resurfaced systems of indigenous knowledge IKS. Informed by interdisciplinary fieldwork and library and archival research such questions ripple out from the local to the regional, national and beyond.

The third dimension focuses on peoples' livelihoods. In Sub-Saharan Africa, these are generally characterised by dependence on the cultivation of land, production of crops, and animal husbandry. While the subsistence economy is widespread, this also includes non-farming activities. The aspect of peoples' livelihoods, however, is one that illustrates the complexity of attempting to theorise rurality. Balfour, Mitchel and Moletsane (2008), for instance, show that in the South African situation, as it is difficult to take a simplistic and static view of rurality, it must be understood in terms of a number of variables. One concerns the fact that in the globalised world, rural to urban and urban to rural migration results in identity formation continually being negotiated. In other words, there are no essential identities associated with the rural. For Balfour et al (ibid), habits such as connectedness, the development of identity, culture, interdependence with the land, spirituality, ideology and politics, as well as activism and engagement, define a sense of place. All these are regulated within an identifiable institutional framework.

The fourth dimension of rurality concerns the issue of governance with regard to how rural communities make decisions and act on matters concerning their welfare, development and other needs. The institutional mechanisms in the form of systems, processes and conditions under which various rural activities take place, influence rural affairs in many directions. Within Sub-Saharan Africa, Chigbu (ibid) identified the rural authority structures as typically including local government, traditional monarchies, chiefs, elders and rulers. Balfour et al (ibid) argue that, despite hierarchies of gender and power that exist in rural communities, stronger socially cohesive relationships between people and between peoples and the land, characterise rural life than are found elsewhere.

The fifth dimension implicates socio-psycho-rural perceptions. On the one hand, it is argued that rural people have behavioural and attitudinal traits which differ from those of people from non-rural areas. Rural areas are more conservative than urban areas.

Chigbu (ibid) argues that rural people exhibit more devotion to religious and heritage practices, belief systems, values and attitudes than their urban counterparts. This contention is highly debatable as Balfour et al (ibid) point out that there is a need to develop a more nuanced conceptualisation, description and understanding of rurality. They argue that rurality is not static-passive, it is rather "...an actively constituted constellation of forces, agencies and resources that are evident in lived experiences and social processes..." (p 102). It is thus problematic to label socio-psycho-rural perceptions of people who live in rural areas according to Chigbu's characterisation.

3.2.2 Academic Project focused on Rurality

Moletsane (2018) has put forward key questions to think about when crafting the role of a rural-based university in South Africa. In engaging with rural communities there is a need to reflect on whether the interventions should:

- Facilitate escape of rural impoverished communities or develop a sense of place and ecological identity among rural inhabitants
- Emphasize rural contexts as places of multiple deprivation or places where social,
 physical, educational and cultural resources and assets reside
- Dismiss cultural activities in the rural institutions as a waste of time or discern
 what can be learnt from these contexts where the arts (e.g., music, sport, and
 dance) are privileged.

On the whole, it can be argued that, when engaging with rural communities, it is important to remember that such engagements must be agent sensitive if we are to learn afresh about meanings and the significance of value systems which have either been ignored, considered lost or of which we are entirely ignorant. In short, it is useful, indeed imperative, to view rural contexts as strength-based comprising communities who are rich in assets. One of the areas in which rural based universities can promote such an actorled and agent-sensitive orientation is by privileging indigenous knowledge systems in engagement activities.

Understanding the rural context is one of the key premises on which the academic project should be structured and delivered. Figure 1 shows the interrelationship between different components of rurality and the academic interventions leading to desired impact. It also shows a dialectical interconnectedness between various components of the University, from vision to impact, with aspects of rurality. The contribution of knowledge and resource is two-way; from university to community and from community to university, all leading to desired impact.

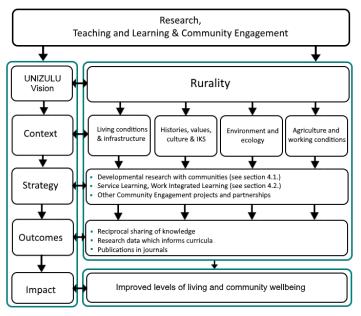


Figure 1: Academic project focused on rurality Source: Adapted from Chigbu (2018 p 189)

Improved levels of living refer to the standards of living as measured by material conditions of the masses, including, health, nutrition, as well as an individual's ability to manage different inputs across intersecting physical, social, cognitive, psychological, environmental and economic factors. It denotes eradication of poverty. More than wellbeing, rural communities need to be assisted to develop what Amartya Sen (1999) calls capabilities, which means ability to exercise agency to change their circumstances for the better.

Integration of IKS into UNIZULU strategy provides an environment for the university to demonstrate its opportunity to exercise a role in shaping cognitive justice and knowledge democracy, as pointed out by Adelle (2019). In the process, UNIZULU can secure a strategic position and an identity as a leader in the phenomenon of inclusive knowledge creation with its host communities.

4. Towards a UNIZULU Strategy

Globally, the higher learning institutions (HLIs) are shifting their traditional focus of limiting their core business to academic affairs and producing graduates that only have discipline-specific knowledge (McBeth 2018). Generally, HLIs have assumed an active role of being agents of change in societies through teaching and research to significantly contribute towards sustainable development. Subsequently, the mandate of HLIs extends to addressing local and global agendas. By recognizing the importance of the intellectual capital, natural, social and human capital; universities, are thus obliged to develop curricula that reflects the elements of equity and inclusiveness, social change and social justice, economic knowledge and sustainable development. Moreover, the curricula should offer innovative research and teaching opportunities that enhance student learning experiences which lead to the production of graduate attributes that deliver value to society. To achieve this requires a re-imagination of how the core business is constructed and delivered.

With regard to UNIZULU it can be argued that there is an apparent tension between a chosen strategic focus and practical focus in its delivery trajectory. On the one hand, the Eurocentric nature of the curriculum and recent uprising by students require a strong and immediate focus on delivering a transformed and decolonized curriculum as well as administrative practices. On the other hand, available western trained academics, including non-academic employees, as well as practical constraints on rapid curricular change, require a gradual approach. A change in ontological and epistemological orientation of practitioners will take time. However, once a decision is taken to anchor practices on eclectic worldviews that lean heavily on building Afrocentric perspectives to overcome the hegemony of the western traditions, this will have to be undertaken in all three core areas of university business. Some ideas are suggested below.

4.1. Research

Research carried out will have to be based on a repertoire of paradigms. This means that there will be a need to continue using Eurocentric traditions while, at the same time actively developing Afrocentric ones. It can be argued that there is a lot to gain from a multi-paradigmatic approach to research. Over two decades ago, Capper (1993), in support of a multi-paradigmatic approach, pointed out that each paradigm has limitations and other paradigms can ameliorate some of these. In a similar vein, South worth (1998) argued for inclusiveness in research that allows for the interplay of different research approaches as appropriate. This will facilitate impact of research on society. UNIZULU would benefit from a model that monitors and evaluates proposals with a component of community-based research and their operationalisation of the findings through the intermediary platform concept of co-creation through a partnership with multiple stakeholders to democratise research and promote trans- inter- and multi-disciplinary. (Quintuple helix model). Through applied research which mostly focuses on innovation and problem solving provides, there will be an opportunity to contribute towards the local socio-economic status of the rural area.

4.1.1 Developmental research

It is proposed that a longitudinal research programme cutting across a number of disciplines be established. Such a project could focus on data shifts away from cross-sectional relationships based on equilibrium assumptions towards dynamics and processes as the basis for explaining complex interactions and feedback mechanisms. More definitive causal inferences could be drawn when rural development dynamics are studied and observed over longer periods of time.

One obvious advantage of this is that it could establish UNIZULU as a specialist on issues of rural development in South Africa and internationally while providing a base for the development of the next generation of African scholars. The downside is that longitudinal

research of this nature takes a long time to deliver this benefit as each survey provides a layer over the other to create an emergent picture of the community and issues under study. It, therefore, requires long-term commitment.

4.1.2. Longitudinal Research

Green (2008) has pointed out that South Africa has a policy on Indigenous Knowledge Systems which focuses attention on the integration of science and traditional knowledge in the country. The dualism of indigenous knowledge and science is a reflection of the assumptions of the hegemonic western worldviews about identity, power, and about acceptable epistemology. UNIZULU has seized the opportunity of developing Faculty Research Niche Areas (RNA) thus positioning itself to contribute to the critique of these epistemological stances as well as by developing and proposing alternative ones. Funding for such research is already available from the The National Research Foundation (NRF). The purpose of the funding is to support research aimed, among other aspects currently being defined in the Faculty RNAs, at deepening our understanding of Indigenous Knowledge Systems (IKS), and its role in development of community life (NRF 2019)

4.1.3. Research on African Indigenous Knowledge Systems

Indigenous Knowledge Systems (IKS) is another niche area that provides a rural-based institution of higher learning, like UNIZULU, an opportunity to derive a unique identity from. This, in particular, is due to its location in a rural setting. The concept of integrating IKS in the research and innovation and teaching and learning strategy of UNIZULU is based on the already existing IKS documentation center which is partly regulated by the local communities through local IKS committees. The university has a rare advantage of existing among the deep rural communities with rich cultural heritage. The many cultural or traditional practices of the local communities can be reflected by the university in many of its curriculums in departments such as Agriculture, History, Education and other departments in various faculties. The strategy provides the university with the opportunity

to capitalize on its geographical advantage and to derive its identity from its hosting rural communities of Zululand surrounding it.

The research on IKS must position itself in such a way that it capitalizes on the opportunities offered by fourth industrial revolution(4IR) technologies as the country moves towards becoming a key global player in the era of 4IR. How a developing country like SA participates in the 4IR, is a subject of divergent views? On the one hand there are those who argue that Africa need time and space to rediscover itself from the shackles of colonialism (Tondi, 2019). On the other hand, there are those who argue that it is not advisable to roll-out artificial intelligence (AI) without integrating the African knowledge and that there must be investments in AI linked IKS (Hadden, 2019). The use of local languages can be seen as one of the key strategies in the development of indigenous artificial intelligence platform to address the demands of 4IR. Other avenues could include a focus on food production, medical care, agriculture, communication and marketing of traditional products.

Research and innovation must be positioned in terms of the local language and social entrepreneurship as vehicles to the development of indigenous artificial intelligence platform to address the demands of 4IR. However, Tondi (2019) warns that It will not be a good idea to roll-out Artificial Intelligence (AI) initiatives that are meant to engage in sustainable development initiatives without also engaging with African knowledge and its nuances (Tondi 2019 p 329).

4.2. Teaching and Learning

Teaching and learning are central activities in the delivery of a given curriculum. Over the years, a number of teaching paradigms have been developed and used in education (Ng S, Baker L, Friesen F. 2018). They cover a range of approaches, from behaviorism where teaching is about shaping student behaviour to produce measurable outcomes intended by the instructor (Pavlov and Skinner) through constructivism (Vygotsky) where teaching facilitates social learning through participatory problem-solving and other activities within

a social environment, to humanist and transformative paradigms that emphasize equity and social justice, human freedom and dignity (Rogers, Maslow and Freire). An IKS integrated curriculum will not only facilitate problem solving for local communities, but provide an environment where the community is involved in developing their own knowledge to be able to solve problems themselves leading to a sustainable living. However, given that the curricular of South African Universities has been highly criticized for being Eurocentric in nature, this has challenged universities to reflect on their offerings and begin to engage with and develop what can be understood as Afrocentric curriculum.

4.2.1. Work Integrated Learning

Recent emphasis in Higher Education – and which cuts across competing paradigms – is on Work-Integrated Learning (WIL) and Service Learning. The extent to which any of the existing paradigms inform teaching in Higher Education today is an open question. Pretorius (2017) has claimed that many institutes in South Africa today use 'talk-and-chalk' methods of lecturing and teaching from a textbook; strategies based on academics' own backgrounds, training and beliefs. This approach to teaching has been criticised for treating students as blank slates, thereby stifling their creativity. He argues that if quality teaching and learning is to lead to the development of higher order thinking and critical abilities, student success, as well as the personal growth of lecturers, it is necessary to use alternative strategies.

The fundamental role of Higher Education has come under spotlight in recent years (Valencia-Forrester, Faith; Patrick, Carol-Joy; Webb, Fleur; Backhaus & Bridget 2019). In South Africa and internationally, there is a growing call on tertiary education to ensure that the graduates they produce are trained and ready for the workforce to use their skills effectively. It has been argued that an effective way to promote this is through Work-Integrated Learning (WIL), which is a pedagogy whose main feature is practicum placements or internships. This can range from short-term work experiences to extended work placements that last for many weeks.

Within UNIZULU all the four faculties and departments have the potential to play a role in promoting WIL. The Faculty of Science and Agriculture can build this within a number of programmes which are of relevance to the community such as Pig and Poultry production, Small stock Science, Crop Science, Elements of Crop Production and Vegetable Crops. Given the importance of nutrition, as a health issue in communities, the knowledge and expertise residing in this faculty could be the key to developing WIL programmes aimed at addressing food security in rural communities. The Faculty of Arts could offer WIL in visual literacy, drawing, and music, among others. The Department of Administration in the Faculty of Commerce and Law could do Public Policy analysis and Project management as well as studies in rural governance. The Faculty of Education teacher education programme has an in-built WIL component. However, the faculty could additionally explore other possibilities, such as exploring an IKS-based approach. In this approach, the teacher-in-training can have an opportunity to be inducted into the culture and way of life of the communities they are to work in. This will give modern teachers the ability to negotiate cultural borders (Sumadic, 2015; Aikenhead, 1996; Morcon, 2017) into the subculture of the intended curriculum content in a manner that recognizes the holistic process of learning provided by the IKS approach.

a) Identified departments that can be directly linked to the IKS unit (center)

Agriculture, Botany, Science Centre, Zoology, History, Geography (IK Astronomy), Tourism, Education, Chemistry, Hydrology, Consumer Sciences, Psychology, Commerce, Anthropology and Development Studies, Law, African Languages, and Music; interfacing of IKS in the few departments listed above is discussed below, indicating the IKS focused research that can be done in each field.

b) Interfacing IKS in Agriculture

Food security is an ongoing and growing concern for the global community. South African statistics point that the majority of citizens live below poverty line. Indigenous ways of food production through farming and animal breeding should be integrated into the curriculum of Agriculture at tertiary level in order to encourage research in IKS ways of

agriculture. There already are many research initiatives in the line of indigenous farming that need to be furthered.

c) Interfacing IKS in Botany

Indigenous communities pose a vast knowledge of ethnobotany which requires investigation and development through research. Interchangeably, botany students can be grounded in both traditional knowledge (ethnobotany) and botany which will provide them a better perspective of plant life.

d) Interfacing IKS in Zoology

Indigenous communities pose a vast knowledge of animal life which requires investigation and development through research. Interchangeably, students who study zoology can be grounded in both traditional knowledge and modern zoology which will provide them a better perspective of animal life.

e) Interfacing IKS in Commerce, Law and Administration

Local indigenous people have always had their own means of commercial activity coupled with their traditional laws, governance and or administration of the public. Indigenous Knowledge research in relation to commerce, law and administration is hoped to enhance a local understanding in this field. Local culture and traditional practices reflect rich customary law and commodity exchanges as traditional practice.

f) Interfacing IKS in the Science Center

The unique advantage with the science center is that it is able to house different knowledge fields of science in one place. Its concept is that of an interactive museum that can accommodate, zoological, botanical, physics, astronomical, biological and other knowledge fields of science in one place. The Department of Science and Technology (DST) has identified science centers as ideal platforms for promoting IK literacy among the youth and communities. The former is motivated by the main focus of science centers, which is to expose young learners in the surrounding areas to the potential of the application of mathematics and the sciences in their future studies and in the work place.

It is against this background that exposure to IK in science centers can raise the level of IK consciousness among the youth and neighboring communities.

Table 1: Critical roles in the implementation of WIL (adapted from Jovanovic, Jessie; Fane, Jennifer; Andrew, Yarrow (2018 p 99)

Roles of academics and host supervisors

1. Relational pedagogy

- Building and sustaining partnerships
- Feedback
- Conflict resolution
- Staff mentoring

2. Inquiry learning

- Staff situational support
- Development of specific WIL enquiry
- Educational Input
- Availability and accessibility

3. Reflective Teaching

- WIL design in subject/unit
- Assessment and evaluation
- Ensuring a quality learning experience
- Guiding students' progress
- Personal and professional development
- Action research

4. Administration

- Duty of care
- Will logistics/management
- Meeting professional requirements

It can be seen from Table 1 that there are a number of activities that academics need to undertake during the course of the delivery of WIL. While contents of the table may appear operational, they actually serve as important indicators of some of the factors that should be taken into account while planning for its introduction. One of the findings of the research done by Jovanovic et al (2018) was that WIL resulted in work responsibilities which amounted to "...an average of three additional hours per week beyond allocated time..." (p 100). It should be noted that the work by the design and delivery of WIL is demanding and requires careful planning which is informed by literature and best practice.

4.2.2 Infusing entrepreneurship in teaching and learning

As a Higher Education Institution striving to stamp its academic footprint as a comprehensive university, UNIZULU academics are called upon to actively develop an entrepreneurship curriculum. Maleki, Khosraci, Miri and Abbaspour (2018) argue that one of the important elements in designing a curriculum with entrepreneurial approach is found in teaching and learning strategies which trigger entrepreneurial thinking in students. For such a project to succeed it has to be done within a framework of an integrated curriculum which draws on the strengths of different disciplines (Huang, X; Liu, M; Huang, P; and Huang, T 2018). As a step towards infusing entrepreneurship in teaching and learning, UNIZULU has developed a conceptual framework which, among other things, opts for entrepreneurship. It will be important for the university community to engage theories and come up with practical actions in the development of an entrepreneurial curriculum.

4.2.3 Embedding Teaching Approaches within the Scholarship of Teaching and Learning (SoTL)

While implementing different approaches (WIL & entrepreneurship), it is important in the current dispensation that it is guided by the cannons of rigor emanating from the debates that characterize the discourse of SoTL. For over three decades, the idea of SoTL has been gaining prominence in academia (Boyer, 1996; Bonney 2018; Mirhosseini, Mehrdad, Bigdeli, Peyrov, Khoddam 2018; Vital 2018). Despite conceptual contestations around the definition of SoTL, it continues to be pursued as a goal to aspire in teaching and learning (Vithal 2018 p 481). However, in seeking to embed WIL within SoTL, it is important to ask two main questions. The one relates to how to ensure scholarship in the delivery of various approaches and what role do emerging Afrocentric epistemologies play in the interface with these approaches?

4.3 Community Engagement

As a third pillar of academic enterprise, community engagement is another area of practice where scholarship is sought, also traced back to the seminal work of Boyer in the 1990's. The idea of engagement has been identified as one of the core values of the university of the 21st century (Sandmann, Saltmarsh & O'Meara 2008). Engagement is understood to suggest a reciprocal, collaborative relationship and embedding practices of civic engagement into the production of knowledge that addresses challenges faced in society. For such an engagement to be successful, it must cut across disciplinary boundaries. Baker (2004 p 127) has argued that "...Instead of seeing the public as a passive recipient of expert knowledge, engaged scholarship stresses that the public can itself contribute to academic knowledge..." and to solving social problems. One of the most effective ways of community engagement is service learning. The IKS strategy of UNIZULU has a potential to combine, in a comprehensive manner the practices of community engagement (CE), service learning (SE) and work integrated learning (WIL) at the same time.

4.3.1. Service Learning

It has been argued that while WIL focuses on the intentional integration of academic learning with its practical application in the workplace, service learning lays emphasis on being of **service** to the community (Valencia-Forrester, Faith; Patrick, Carol-Joy; Webb, Fleur; Backhaus, Bridget 2019). Higher education institutions are expected to demonstrate a sense of social responsibility and commitment to the public good. This implies that UNIZULU is expected to be service society and its needs. Furthermore, service learning is seen as a key strategy for producing graduates with a strong sense of civic values; and should be designed in such a way that it provides equal benefits to the provider and recipient. Service learning requires of students to be open to different forms of knowledge and to be alert to the fact that knowledge is produced in different ways. The key features include students spending a certain number of contact hours in the community. The students, with the assistance of academic staff, need to work out what exactly the hours spent in the community involve. Such deliberations should be guided by the fact that service leaning is "...applied learning which is directed at specific

community needs and is integral into the academic programme and curriculum..." (Higher Education Quality Committee 2011).

In UNIZULU it will be important to adopt service learning as a strategic form of community engagement and an integral part of civic engagement. Coordinated by relevant centres, the Community Engagement (CE) Centre and Centre for Sustainable and Integrated Rural Development (CSIRD), service-learning should be based on a fundamental premise of its reciprocal nature and sharing of benefits between students, academics and community and then reflect on the value of their contribution. The IKS unit (center) can play a role of coordination between the activities of the community and that of the university in reciprocating the benefits of engagement. The IKS strategy facilitates the contribution of the local communities in the teaching and learning process of the university. Moreover, the IKS unit can be an instrument to facilitate the university's focus on relevant African indigenous knowledge systems (AIKS) that require urgent attention in order for its protection.

4.3.2. Transdisciplinary Orientated Services

Understanding and supporting community engagement activities aimed at addressing development needs, can be a challenge. Service delivery is often hampered by fragmentation along the lines of disciplinary or professional domains and organized by government along departmental lines. Such boundaries are often difficult to transcend. Intellectual engagement with transdisciplinary approaches to delivering integrated services should become an arena in which UNIZULU distinguishes itself. University-wide possibilities, where all faculties and departments with potential to play a role in building a transdisciplinary perspective and practices, must be explored in more detail. Indigenous Knowledge Systems is a broad field of knowledge that connects to different faculties through research in an educational institution. The university's IKS proposal aims to establish a broader Center for IKS in which the current IKS documentation center will be incorporated. This Unit (Center) for IKS will be a broader unit of the University of Zululand that will link all the IKS related activities of the university to a one central place for better coordination. The IKS documentation center has already coordinated the process of

discovering and documentation of indigenous knowledge from our local rural communities. It is therefore important to have a mechanism of channeling much research activity towards the existing knowledge that has been documented and is still being documented by the center. The Center for IKS as a unit is seen as means for having such a mechanism in place.

5. Conclusion

It is against the backdrop hashtag campaigns for change and growing scholarship calling for a renaissance in education that UNIZULU needs to mainstream the ontological and epistemological debates aimed at sharpening strategy for transformation of the core business. The rural context in which the university is situated offers a unique opportunity, not only to initiate innovative approaches and programmes in the local to draw attention nationally, but to become a leader in the global debate on rurality.

6. References

Baker, N.S.L. and Friesen, F. (2018). Teaching for transformation. *An online supplement*. Available from: www.teachingfortransformation.com

Barker, D. (2004). The scholarship of engagement: A taxonomy of five emerging practices. *Journal of Higher Education Outreach and Engagement.* 9(2), 123-137.

Bonney, K. students as partners in the scholarship of teaching and learning. *IJ-SoTL*. 12(2). Retrieved from: https://doi.org/10.20429/ijsotl.2018.120202

Boyer, E.L. (1996). The scholarship of engagement. *Bulletin of the American Academy of Arts and Sciences*. 49(7), 18-33. Retrieved from: https://www.jstor.org/stable/3824459

Brock-Utne, B. (2016). The Ubuntu paradigm in curriculum work, language of instruction and assessment. *International Review of Education*. 62, 29-44. Available from: doi.10.100/s11159=-016-9540-2

Chemhuru, N. (2016). The import of African ontology for environmental ethics. PhD. Literarum et philosophie, Humanities. [Unpublished]: University of Johannesburg. Retrieved from: https://ujcontent. Uj.ac.za./vital/access/manager/index?sitename=Research%20Output

Chigbu, U.E. (2013). Rurality as a choice: Towards ruralising rural areas in sub-saharan African countries. Development Southern Africa. 30(6), 812-825. Retrieved from: https://doi.org/10.1080/0376835x.2013.859067

Driscoll, A. and Sandmann, L.R. (2016). From maverick to mainstream: The scholarship of engagement. *Journal of Higher Education Outreach and Engagement*. 20(1), 83-94.

Ebo, S. (2018). The word in African ontology. Acta Universitatis Danubus. 12(1) 64-73

Ferreira, R. (2012). Rurality and resilience in education: place-based partnerships and agency to moderate time and space constraints. *Perspectives in Education*. 30(1), 30-42.

Grimmett, M.A., Lupton-Smith, H., Beckwith, A., Englert, M.K. and Messinger, E. (2018). The Community Counselling, Education, and Research Center (CCERC) model: Addressing community mental health needs through engagement scholarship. *Journal of Higher Education Outreach and Engagement*. 22(3), 201-230.

Guy, J. (2013). *Theophilus Shepstone and the forging of Natal*, Pietermaritzburg: University of KwaZulu-Natal Press.

Hadden, D. (2019). THE PATH TOWARD PROPER POLICY MAKING: Adopting 4IR Policies in Developing Nations and Emerging Economies. 32(6) *Cutter Business Technology Journal* Udefi, A. (2014). The rational for an African epistemology: Acritical eexamination of the Igbo views on knowledge, belief, and justification. *Canadian Social Science*. 10(3), 108-11. Retrieved from: doi:10.3968/4445

Hoppers, C.A. (2008). Culture, Language, Indigenous Knowledge and the role of universities in sustainable rural development. In CEPD. (2008). Universities in southern Africa as catalysts for sustainable rural development. Proceedings of the Centre for Education Policy Development conference. Kopanong, Johannesburg

Huang, X; Liu, M; H; Huang, P & Huang, T (2018) Effective Integration of College Courses: Ideological and Political Education in Entrepreneurship Curriculum. *Education Sciences: Theory & Practice*. 18(6) ◆ 3744-3752. (retrieved 12 September 2019)

Jovanovici, J., Fane, J. and Andrew, Y. (2018). Giving institutional voice to work-integrated learning in academic workloads. *International Journal of Work-Integrated Learning*. 19(2), 93-109

Luyaluka, K.L. (2016). An essay on naturalized epistemology of African Indigenous Knowledge. *Journal of Black Studies*. 47(6), 497-523.

Marx, L. (2017). The relevance of Robert Sobukwe's Pan-Africanism in contemporary South Africa. *Theoria*. 64(4), 128-143. Retrieved from: doi:10.3167/th.2017.6415308

Mathebula, N.E. (2018). Pondering over the public administrative discipline: A move towards African Epistemology. *Bangladesh e-Learning Journal of Sociology*. 15(2), 17-25

Mekoa, I. (2018). Advocating for Afrocentric Studies and African scholarship in the midst of the hostile western scholarship. *African Renaissance*. 15(3). 87-110. Retrieved from: doi: http://doi.org/10.31920/2516-5305/2018/v15n.3a5

Moletsane, R. (2018). Rurality and its implications for education. Power point slides, Rurality Comprehensitivity Indaba, Empangeni.

Muhamed, Y; Maleki, H; Khosravi, M; Miri, M.R & Abbaspour A (2018). Analysis of Teaching and Learning Strategies in Medical Education Curriculum with ntrepreneurship Education Approach. *Journal of Birjand University of Medical Sciences.*; (Supplementary: Medical Education): - 16-26

Mutekwe, E. (2017). Unmasking the ramifications of the fees-must-fall conundrum in higher education in South Africa: A critical perspective. *Perspectives in Education*. 35(5), 142-154.doi: http://dx.doi.org/10.18820/2519593X/pie.v35i2.11

Ndoda, G.R. and Sikwila, M.N. (2014). Ubuntu-praxis: Re-modelling the balanced scorecard model at a university, an Afrocentric perspective. *Research in Higher Education*. Available from: http://www.aabri.com/manuscripts/131697

Ngũgĩ Wa Thiong'o. (1964). Weep not, child. London, Heinemann Educational Books.

Nwosimiri, O. (2017). Epistemology in African Philosophy: A critique of African concept of knowledge. *World Academy of Science, Engineering and Technology International Journal of Humanities and Social Sciences.* 11(2)

Pretorius, L. (2017). Effective teaching and learning: Working towards a new, all-inclusive paradigm for effective and successful teaching and learning in higher education and training. *Educor Multidisciplinary Journal*. 1(1), 6-29.

Ramadiro, B. and Porteus, K. (2008). The university and sustainable development. In CEPD. (2008). Universities in southern Africa as catalysts for sustainable rural development. Proceedings of the Centre for Education Policy Development conference. Kopanong, Johannesburg

Rampu, P.L. (2017). How the paradigm of the curriculum has changed: From Enkyklios Paideia [All-round education] to Maths and Science versus Humanities. *Geographica Timisiensis*. 26()1-2,57-73

Sandmann, L., Saltmarsh, J. and O'Meara, K.A. (2008). An integrated model for advancing the scholarship of engagement: Creating academic homes for the engaged scholar. *Journal of Higher Education Outreach and Engagement*. 12(1), 47-63

Sefa Dei, G.J. (2018). "Black like me": Reframing blackness for decolonial politics. *A Journal of the American Educational Studies Association*. 54(2), 117-142. Available from: https://doi.org/10.1080/00131946.2018.1427586

Semwaza, F. (2009). Surveying epistemology: Discursice impacts on the African understanding of childhood stories. *Childhood in Africa*. 3(1), 47-55

Sesanti, S. (2019). Decolonized and Afrocentric Education: For centering African women in remembering, re-membering, and the African Renaissance. *Journal of Black Studies*. 50 (5). 431-449 Available from: doi:10.1177/0021934719847382

Steiner, S. (2017). A prestudy curricula-as-research model for scholarship of engagement: Combining continuous service with discontinuous learning. *Journal of Higher Education Outreach and Engagement*. 21(2), 67-101

Swartz, D. (2008). New pathways to sustainability: African universities in search of meaning in a globalising world. In CEPD. (2008). Universities in southern Africa as catalysts for sustainable rural development. Proceedings of the Centre for Education Policy Development conference. Kopanong, Johannesburg

Swartz, R., Ivancheva, M. Czerniewicz, L. and Morris, N.P. (2018). Between a rock and a hard place: Dilemmas regarding the purpose of public universities in South Africa. *Higher Education*. 77, -567-583. Available from: https://doi.org.10.1007/s10734-081-0291-9

Tondi, P. (2019). The significance of indigenous knowledge systems (iks) for Africa's socio-cultural and economic development in the dawn of the Fourth Industrial Revolution (4IR). *Journal of Gender, Information and Development in Africa (JGIDA)*, 8(Special Issue 1), pp.235-241.

Van Der Ploeg JD. 1997. 'On Rurality, Rural Development and Rural Sociology', *Images and Realities of Rural Life: Wageningen Perspectives on Rural Transformations*, The Netherlands: van Gorcum.

Vithali, R. (2018). Growing a scholarship of teaching and learning institutionally. *Studies in Higher Education*. 43(3), 468-483. DOI:10.1080/03075079.2016.1180350.