

Chapter 8

A Posthumanist Theorisation of South African Higher Education Towards Sustainable Learning Environments in the Context of Africa

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Abstract

This chapter focuses on the theorisation of higher education research and the innovation landscape in South Africa (HESA). Furthermore, a theorisation of Egyptian Higher Education Research and Innovation Landscape) (EgHERIL) is included because of the country's proximity to Europe and the Middle East. Then the Kenyan landscape is theorised as part of Sub-Saharan Africa. At the beginning of this chapter, a concise historical survey is presented concerning how they (Kenya and Egypt) create sustainable learning environments, starting with their solutions to their respective challenges. The chapter is interested in analysing those conducive contextual factors by amplifying them and highlighting the threats to the evolving solutions to circumvent them. The focus then shifts to gathering evidence, or lack thereof, that some of the mentioned solutions work. All of the above are looked at from the perspective of the Posthuman lens that makes it possible to see the workings of humanism and liberal ideologies

in crafting legislative imperatives and policy directives. Unearthing the hand of humanism is vital because problems of colonisation disguised as quality concerns are exposed for what they are, and the basis laid for the new epistemologies and ontologies of decoloniality and transformation in higher education research and innovation in South African higher education. A Posthuman theorisation assists the chapter to pulverise and de-centre the notion of the individual in higher education research and innovation landscape, and in its place to recognise the immense role and influence of the relationalities at the level of the researcher, the higher education institution and the entire system of the country and continent. Given the Posthuman lens, the chapter attempts to answer the following questions: What is happening in the African higher education research and innovation landscape? What are the push and pull factors driving the migration and immigration of scholars to and from the African continent, and how does this affect the research and innovation capacity of higher education institutions? How have innovations in the African higher education sector shaped the course of higher education, contributed to socio-economic development, and improved lives? What kinds of engagement are happening within the African higher education landscape, and how is this shaping the course of education?

1. Introduction and Background

In this chapter, we argue that Posthumanism presents the best theory for understanding, buffering and deepening the practice of research and innovation in South Africa (Forlano, 2017). However, we realise that the story of research and innovation in South Africa will not be complete if we leave out the discussion of research and innovation in critical African countries such as modern-day Egypt and Kenya (Chakravorti & Chaturvedi, 2019). The argument that we pursue is that South Africa, through its higher education sector, is attempting to conduct research and innovation of a high quality aimed at creating sustainable learning environments, first at these institutions of higher education and then second across

the entire country and beyond (Korovkin, 2019). All these African countries purport to operationalise their research and innovation guided by UNESCO's 17 Sustainable Development Goals (SDGs) (Vries, 2020). A closer look, though, reveals that each of the countries, while paying homage to the entire 17 SDGs, has placed particular emphasis on almost exclusively economic development goals (Egypt), the other on environmental sustainability ones (Kenya), and the last on social inclusiveness (South Africa). We are making a point that while all three categories constitute the overriding basis of the SDGs, each country seems to have chosen a particular emphasis depending on what has become urgent in its specific context. This shift in our view has detracted from the main thrust of the collective of all the SDGs, making this study urgent and necessary. For example, Egypt, while agreeing to the importance of all the 17 SDGs, has prioritised research and innovation, mainly of economic development, such that the negative impacts of the desert, inadequate food security and limited water supply can be offset (Wulff, 2020).

On the other hand, with its abundant fauna and flora, Kenya seems to have emphasised research and innovation that enable the country to take full advantage of what occurs in abundance and naturally, namely environmental sustainability (Nel, 2020). Finally, South Africa places a lot of emphasis on research and innovation that advance the agenda for social inclusivity as its primary focus (Ramutsindela & Mickler, 2020). The evidence of these choices can be found in the legislative imperatives and policy directives covering research and innovation in the respective countries (Vries, 2020).

The move towards specialisation on one of the three categories constituting SDGs has left the respective countries lagging to the extent that further research on the countries has revealed minimal advancement towards attaining the SDG per country (Chiluba et al., 2020). For example, despite the fact that the SDGs were formulated by the entire community in 2015, seven years down the line, countries like Kenya, South Africa and Egypt still record the highest level of unemployment, inequality among members of their

population, rampant poverty, and gender-based violence, especially against women and children (Froehlich et al., 2020). Not much can be said about food security, as many still go hungry without proper food in these countries. There have been significant efforts to improve education, with a lot of money being allocated, but nothing much has happened (Nel, 2020). There are still whole villages and communities in the mentioned countries where entire communities and whole villages are without clean drinking water and sanitation for humans and animals (Halkos & Gkampoura, 2021). There has been an attempt at industrialisation, but only a small portion of the population in those countries is benefitting (Chiluba et al., 2020). The idea of smart and industrialised cities is still a dream that has not materialised. Levels of inequality are second to none in the world, although research and innovation are encouraged to look at inequality and find a solution. Life below the water and land has not been adequately harnessed to benefit humanity and the planet sufficiently (Gill & Smith, 2021). Violence is rampant, and climate change is erratic because the resources are not used appropriately or equitably. Peace and justice, as well as strong institutions to safeguard such, are still under construction and, as such, are a mirage that can only be seen from a distance but have not materialised for communities in these countries and nations (Nodoro, 2021).

The point we are making is that the three African countries constituting the focus of this chapter are approaching research and innovation in a fractured and fragmented manner (Liu & Gu, 2020). As we have argued above, each country has chosen a category among the three and tried to operationalise that while paying lip service to the other two. There is thus no united and concerted effort among African countries to collectively address the challenges laid bare by the SDGs (Bray, 2021). Each country pursues its own agenda given what is essential in its own context. Even at each country's level, there is further fragmentation in that not all three categories of the SDGs are pursued equally (Giliberto & Labadi, 2022). This paucity has resulted in Africa being unable to attain much of its Agenda 2063 items (Africa

Union Commission, 2017). For example, not many of the three countries experience prosperity based on inclusive growth and sustainable development (Addaney, 2018). The continent is still not united politically or otherwise. Furthermore, good governance is still a dream as corruption and greed take hold (Hingston, 2016). The ideals of a common identity, democracy, and a peaceful Africa with people-driven development, and the development of women and children's potential, are forgotten (Mbaku, 2019).

The abovementioned challenges that cut across the SDGs and the Africa Agenda 2063 also cut across the National Development Plan of South Africa (Fourie, 2018). The Higher Education institutions that are supposed to lead the charge towards realising these laudable intents are fragmented and immobilised (Radinger-Peer & Pflitsch, 2017). However, a few African universities make it to the international ranking tables, mainly in South Africa. However, their impact is still negligible because of their limited numbers (Lee et al., 2020). Given the above, therefore, it would seem that a more appropriate and meaningful approach would thus be the one that recognises the complexity of research and innovation. Such an approach would be the one that would realise that every aspect of the SDGs is entangled with the rest and that there would be no way that any one SDG could be singled out and handled in isolation. Each one of the SDGs is also meaningful in the context of the others (Fourie, 2018). One category of SDGs (e.g. social inclusivity) will only make sense when analysed against the backdrop of the rest (e.g. environmental sustainability and economic development of all).

2. Posthumanist Approach to Research and Innovation in Africa

In this chapter, we argue that the Posthuman Theory seems best suited under the circumstances to enable us to lay bare and understand the intricacies and complexities of higher education research and innovation (Forlano, 2017). Posthumanism is most appropriate because it operates

at the multi-perspectival and multi-layered levels of a multidisciplinary subject matter. Posthumanism is birthed from a theorisation rejecting an isolated genius's Piagetian genetic epistemology (Eglash et al., 2020). Posthumanism acknowledges the contributions of many in constructing any one entity, be it research or innovation. It is a theory that has gone beyond Vygotskii's socio-culturalism that recognises the importance of the other, the able other, in enhancing and deepening understanding (Lamola, 2022). Posthumanism affirms Bronfenbrenner's ecological perspective but goes beyond the confines of the micro-, meso-, exo- and macro-systems (Eglash et al., 2020). In doing research, understanding that it is contextualised in this manner is valuable and important but incomplete. A complete approach acknowledges the de-centred notion of the self/the knower/the researchers (Blyth & Meiring, 2018). In short, according to this perspective, knowing is not about me as an individual knower but about the relationships of knowing, which are important. Relationality that pulverises the sanctity of the individual is what is important (Ceder, 2018). Posthumanism affirms that it is not just about the individual knower but about knowledge as a space into which one may come in and get out as necessary during the process (Romm, 2021). Knowledge or expertise is not resident within individuals but between them. No person is guaranteed the status of the knower, *ad infinitum*, but as the situation demands, he may be called in to share their idea on any matter for a given duration of time (Perry, 2021).

Post humanity thus enables higher education research and innovation in Africa to be understood and conducted from as many perspectives as possible (Braidotti, 2016). It enables all three dimensions of the SDGs to be integrated and analysed at the same time such that the voices of all can be heard at the same time (Copeland, 2021). It advocates for the integration of social inclusivity into economical development as well as environmental sustainability. It recognises the entanglement of all in one another. The Africa 2063 Agenda is seen as being at one with the SDGs and the NDP, with each merely shedding a bit of light from wherever perspective they are (Tchekpassi,

2020). The most significant contribution of Post humanity is not because it is anti-human or less than human but because it is more effective than human. It includes what is non-human, all that is human, and all that is more than human (Preiser et al., 2021).

This all-encompassing approach of Post humanity was also made possible by the Fourth Industrial Revolution (4IR), which saw one's individuality extended far beyond ever imagined; through such advanced technologies in research and innovation, we started using concepts such as ubiquity to ensure that the researchers were everywhere all the time (Lamola, 2021). Their way of functioning was omniscient and omnipresent. COVID-19 did indeed have its hold on humanity's throat. However, despite the delayed arrival of the vaccines on the scene, humanity could still mitigate the impact through remote teaching and learning and researching through posthuman means (Ahmed, 2020).

3. Posthumanism, Africanisation and Decoloniality

From the above discussion, exceptionally few theoretical positions would be more compatible with the SDGs, Africa Agenda 2063 and the National Development Plan than Post humanity (Nhemachena, 2018). One of the pillars of Post humanity is that it fiercely contests the sway that humanity, as a theoretical position, has overall, mainly research and innovation (Botha, Griffiths & Prozesky, 2021). Humanity, as the outcome of the Middle Ages' Enlightenment, places and ranks humans on a ladder towards perfection. According to society, the white young man is at the top of the ladder, and the bottom is an elderly Black woman (Le Grange, 2020). The message in this depiction is that all human beings should strive towards being like the young white man who, in his own right, is in the perfect space like the gods.

On the other hand, the Black woman, almost like a slave, has only herself to blame as she finds herself despised every time and has to aspire and work towards being like the rest.

The depiction of enlightenment that has informed western thought to date repeats the same error of hiding knowledge about human beings. One snippet presents what it assumes to be significant and total about human beings (Leibowitz, 2017). The knowledge about and of the Black woman is hidden like the knowledge of all Black people today. Their knowledge is hidden underneath the stories of white people who are presented as the standard and measure of perfection.

It is against this racism that Post humanism contests the sway of enlightenment that has hidden racism so neatly tugged away but is influential in terms of telling who is important and whose story is important is worth knowing (Ndlovu-Gatsheni, 2018). Research and innovation couched in Post humanity will thus be able to unearth and expose the taken-for-granted racism (Hudson, 2018). Posthumanity always shows the hand of enlightenment and its toxic effects.

The struggle for research and innovation in higher education in South Africa and throughout the continent has precisely been the above. Posthumanity has come at the right time as the instrument of transformation and disruptive theorisation away from the self-perpetuating influence of humanity and enlightenment (Etieyibo et al., 2021), in the place of the above posthumanity advocate for equality, equity, social justice, peace and hope, among others. Research and innovation mounted on Post humanity acknowledge all knowledge and ways of knowing. Posthumanity is additive in approach in that privileged knowledge is one that is inclusive, empowering and transformative (Barreto, 2014). Instead of advancing the agenda for colonialism as preached by humanity and enlightenment, posthumanity talks about decoloniality, where the knowledge of all, including the marginalised and the excluded, is recognised and validated (Etieyibo et al., 2021). It makes a case for the colonised in that they, too, have a story and a good story. It is not only about the west and the westerners' knowledge, but it is about all of humanity whose knowledge is worth knowing and telling about. It affirms and valorises Africanisation as another mode of knowing which is indigenous to the African continent. Africanisation which

is about knowledge of the indigenous is valorised and made popular and unearthed. By Africanisation, Posthumanity does not reject all other forms of knowledge; instead, it is additive in that it advocates for all forms of knowledge to be included without excluding any (Levander & Mignolo, 2021).

Posthumanity deepens the thorough understanding of humans, non-humans and more than humans (Schiølin, 2020). The value, for example, of resources, machines, computers, infrastructures, animals, plants and the entire universe are recognised through Posthuman theorisation. Posthumanity, like the SDGs, is opposed to the anthropocentric view of the world where only humans and their knowledge (s) matter (Bozalek & Pease, 2020). It decenters knowledge such that it does not inhabit one being or non-being. Knowledge is multiple, multi-layered and multi-perspectival according to Posthumanity. The western canon of knowledge is not rejected from a posthuman perspective. It acknowledges the value and importance of all, whether human or not. The individual is decentered to acknowledge the relationalities that constitute them. The era of the 4IR also argues for the extended human who can do and reach far more than the conventional human can achieve due to the embedded advanced technologies, such as artificial intelligence. Concepts such as the cyborg have seen the light of day under the influence of Posthumanity to confirm the interaction between humans and that which is not to produce that which is beyond human (Ferrante, 2018). Think about the blade runner who is amputated but who, because of the prosthetics technologies, can run faster than an ordinary human being because of the enhanced ability due to the fusion of biology and the technological (Bozalek & Pease, 2020).

4. Conclusion

Posthuman thought is integrative in its approach. While research and innovation may be regarded as specialists and separate processes, this theorisation sees them as integrated into the practice of everyday life. Posthumanity considers these processes integrated into social policies

and legislative imperatives (Shozi, 2020). It is impossible to talk about national research and innovation policy without considering the history of the nation they take place in. For example, Egypt's research and innovation practices only make sense when one considers the turbulent history of this country through its 2011 revolutions and attempts towards stabilisation beyond that (Cantini, 2021). One cannot produce a complete account of South Africa's national research and innovation framework without acknowledging the momentous events of 1994 and 1996 to date (Taylor, 1996). These have profoundly influenced the achievements or lack thereof by the abovementioned framework. The constitution and successive legislation operationalisation is also entangled in the research and innovation framework developed for the country. Gumede (2020) is correct when he confirms that the extent SDGs are achieved is also a function of the presence or absence of an overarching policy framework related to the practices and thoughts on the ground. Research and innovation manifest the vision and mission statement of the country's strategic plan, its constitution, and all its legislation and priorities, as discussed above.

We have described the challenges facing research and innovation in Egypt, Kenya and South Africa as examples of how all the above come together to produce challenges and collectively achieve the objectives. A discussion of the SDGs and how they are pursued in these three illustrative countries was presented and integrated into the Africa Agenda 2063 and reference to South Africa's National Development Plan. The above argument demonstrates how this integration is necessary, especially if Posthumanity is the overriding theoretical framework. A detailed discussion of Posthumanity is further provided by showing how a collectivised approach taking into consideration the non-human, human and more-than-human actors and factors is helpful in research and innovation that is Africanised, decolonial and transformative.

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