Chapter 5

Unmasking the Logic Embedded in the Fourth Industrial Revolution (4IR) in Pursuit of Transformation in Higher Education

Nompumelelo Zodwa Radebe

Abstract

The advent of COVID-19 accelerated the implementation of the Fourth Industrial Revolution (4IR) as it became the only viable option to teach during the lockdown. Indeed, this changed the trajectory of teaching and learning as we know it. However, it must be noted that 4IR is not a neutral tool in teaching but has a capitalist logic embedded in it that dehumanises in the interests of profits. It becomes critical therefore to pay attention to the impact of 4IR in human lives over and above the facilitation of education. This propels us to ask this fundamental question: "What is education?". To respond to this question, the chapter reflects on online teaching in higher education. It pays attention to the social distance effects of online teaching that undermine the basic tenet of social relations. This chapter takes into account that 4IR is not just a tool that transmits education but a pedagogy. As such, it reads its impact on human relations. The paper argues that the transformation of higher education is precisely about unmasking the logic embedded in epistemologies and pedagogies in higher education to redress the injustices of the past. The call for transformation in higher education is therefore a call for epistemic justice to create a world that is informed by ecologies of knowledge and thus responds to the devastations of modern technologies. Achieving true transformation in higher education requires that we open up to other ways of knowing in the pursuit of epistemic justice.

Introduction

This chapter focuses on the importance of transformation in higher education in pursuit of epistemic justice in the context of the Fourth Industrial Revolution (4IR). The 4IR has become inescapable since the advent of COVID-19. As Chaka (2022: 1) argues:

> the pandemic has not only caused major sudden changes, but it has also put a halt to the old ways of doing things in different spheres of life [...] higher education (HE) has not been immune to such pandemic-induced abrupt changes and their associated challenges.

This means the programmes of higher education that were in place had to be halted, such as the transformative agenda. For example, at the University of South Africa (UNISA), the transformative agenda is pronounced through the Africanisation and decolonisation of the university inscribed in the university's mission and vision. It states: "Towards the African university in service of humanity, shaping futures". During the lockdown as a result of COVID-19, the 4IR became a necessity that could not be negotiated but accepted as the only solution to the crisis brought forth by COVID-19. In other words, there was no time to check the impact of 4IR concerning Africanisation and decolonisation which anchored the transformative agenda at UNISA. According to Koopman and Koopman (2021: 155), "this new world of digitisation, which has been accelerated by the COVID-19 pandemic, is the new cultural imprint (or world) that universities must instil in their students to understand so that they can be active role players in the system". It is important to mention that online teaching did not just come as a response to the pandemic but had made inroads already and the pandemic was just a catalyst. Chaka (2022: 2) reminds us that "since its pre-pandemic days, Education 4.0 was already being seen as holding the prospects of being a game-changer within the HE sector". It is important to pay attention to this because it reveals the aspect that 4IR is not just a response to a crisis but has been long coming.

Marwala (2022) argues that the 4IR is the only option for economic growth. In his book, *Closing the gap: The Fourth Industrial Revolution in Africa*, Marwala vehemently advocates for the advancement of 4IR in the education sector. It is in this context that Koopman and Koopman (2021: 146) argue that the online world of virtual reality was "forcibly implemented despite fierce resistance from students throughout the country due to the huge economic inequalities that produced the immense digital divide". The argument presented by Koopman and Koopman becomes evident in the reflections of Khunou as she presents the challenges of one of her students and writes: "Our move to virtual teaching, learning, and work has come with what looks like new challenges; however, when one uses the lens Lesego provides in her reflection, underdeveloped infrastructure continues to be our challenge." (Khunou 2023: 93). Marwala acknowledges that the 4IR "has the potential to exacerbate poverty and inequalities" (2022: 2), except that it is not potential but real. This means that the 4IR does not solve the already existing challenges – it refashions them, if not exacerbates them.

Obviously, we cannot go back to the old ways of doing things as that will be like going against the tide. Jansen posits: "Whether we like it or not, the traditional university fashioned on the long dominant model of face-to-face teaching is a thing of the past" (Jansen 2021: 136 citing Pham & Ho 2020). Firstly, I must emphasise that by unmasking the logic embedded in technologies used in higher education, I am not rejecting the use of these technologies. Secondly, I am not denying the achievements made through these technologies. As Zeleza (2002: 3-4) advises: "Engagement with the new technologies allows universities to provide their students with critical technoliteracy, democratised and customised higher learning, and to help to shape the emerging ICT educational regime." Clearly, there are many positive effects derived from embracing new technologies in higher education. The interest of the chapter is in the less explored aspect of 4IR, its impact, and its cost to human life in its totality. I argue that this "darker side" – using Mignolo's (2011) expression – of 4IR is concealed in the dominant narrative of its successes.

The purpose of understanding the logic that informs the 4IR is in a way shifting the gaze, as it is somehow studying upwards "to examine the processes of the powerful, yet understudied, who govern society in various capacities" (Kekana 2024: 74). Clearly, the 4IR falls squarely on the powerful, so asking what ideology informs it in a way is studying up. This is critical because technologies encapsulated in the 4IR are not just instruments to transmit content, but in them, there is an embedded ideology. As such, the technological world should go under scrutiny. While it is apparent that we cannot go back to how we used to do things, this does not mean that we cannot ask questions. The more pertinent question in higher education is: "What is education?". Real education is not to accept what is presented to you without scrutinising its logic and effects. This is the responsibility of higher education to nurture the inquiring mind to be sensitive and responsive to the immediate environment. This chapter is not studying up per se but it is asking questions as part of the reflection on the impact of the 4IR in higher education.

Before we delve into attempts to unmask the logic of the 4IR, it is important to explain what we mean by '4IR'. In this chapter, 4IR is the usage of technology as a benchmark for quality higher education (Yende 2021). This is supported by Marwala (2022), who asserts that the 4IR is actually the confluence of all other technologies. So, 4IR is all the technologies that are used to facilitate education. Understanding technologies and their role in this chapter is the reflection on the 4IR, its prospects, and its effects. Following Koopman and Koopman's (2021) pursuit of using Heidegger's views to explain the philosophy behind technology, similarly, the chapter draws from Heidegger to show the philosophy behind technology. Heidegger, writing in Germany after the end of World War II asks questions concerning technology. He warns:

> But we are delivered over to it in the worst possible way when we regard it [technology] as something neutral; for this conception of it, to which today we particularly like to do homage, makes us utterly blind to the essence of technology. (Heidegger 1977: 4)

It is in this spirit that I question technology as it is not neutral. Heidegger (1977: 32) continues to argue that "[s]o long as we represent technology as an instrument, we remain held fast in the will to master it. We press on past the essence of technology". Scrutinising technology therefore enables us to reveal what is concealed by the 4IR in the guise of inescapable necessity. The technology is presented in such a way that it cannot be challenged; how it was produced and to what end should not be questioned but absorbed. To the former colonised, this approach is not new. We have experienced this before in Western science. Ramose (2005: 32) reminds us of the approach as he argues: "European colonisation was intent upon establishing and maintaining in all the colonised parts of the world, the European conception of reality, knowledge, and truth." So, the 4IR is presented using the Western conception of reality without any engagement with other ways of perceiving the world. It is in this context the transformation in higher education is necessary to precisely redress this attitude that marginalises all other epistemologies.

The main aim of the chapter is to unmask the ideology concealed in modern technologies to show the need to transform higher education. The emphasis of the paper is on the pervasive logic reproduced by technologies in higher education that serve the neoliberal agenda of expansion of markets. It uses decoloniality as a theoretical framework which enables us to reveal the continuities of the colonial logic observable in the 4IR era. Through the reflections on the impact of the 4IR in higher education, the chapter argues that the move to digitalise higher education is not the true transformation of universities. In South Africa, transformation should be understood in the historical past of higher education which was defined by the exclusion of Africans in the design and governance of higher education. Transformation therefore is paying attention to this past by bringing African ways of knowing as part and parcel of the design, content, and governance of higher education. The chapter brings an African epistemology to show how the 4IR can be understood from an African perspective. It concludes by arguing that remaining true to the principles of transformation as envisioned provides

possibilities for epistemic justice where all epistemologies can be used in times of crisis.

Theoretical Orientation

Understanding the logic embedded in 4IR requires unmasking coloniality which hides the continuities of colonialism. I, therefore, employ decoloniality as the theory to show the entanglement of 4IR with Western epistemology that gave birth to the capitalist logic. It is important to explain the theory to assist the reader in how to read the chapter. According to Ndlovu-Gatsheni (2020: 71), "decolonization/decoloniality provides the overarching conceptual-theoretical framing as it challenges present and past globalization and its pretensions of universalism". Decoloniality is therefore a theory informed by the continuities of colonialism in the former colonies. So, to make a case for decoloniality means that we need to point out the colonial continuities. This is not to centre colonialism but to further develop decolonial theory so that true liberation is achieved. Thus, decoloniality is about

> epistemic freedom which speaks to cognitive justice. Epistemic freedom is fundamentally about the right to think, theorise, interpret the world, develop own methodologies and write from where one is located and unencumbered by Eurocentrism (Ndlovu-Gatsheni 2018: 3).

Decoloniality is concerned with knowledge production that in turn transforms the society at large as this is the knowledge used to interpret the world. This means we need to decolonise existing knowledge. Keet (2019: 204) argues that "the decolonisation of knowledge is meant to disrupt the disciplines in order to dislodge the rules that generate the existent patterns of rewards and sanctions within the academy". In other words, decolonisation is about dismantling colonial legacies. Of course, this is not to centre the colonial but it is to ensure that the continued injustices are exposed and proper connections and the root cause of these injustices are not forgotten. The insistence on using the term 'decoloniality/decolonisation' is not to make it central but to

ensure that we do not forget the devastation of coloniality and that it still informs the present existence of the colonised. This is important because evidently the global power structure continues to dictate what and how knowledge is produced long after the independence of the former colonies, and that is coloniality (Ndlovu-Gatsheni & Zondi 2016: 4).

So, pointing out coloniality is critical in exposing the continuities of colonialism which prevents us from attaining true liberation where we can think for ourselves without the West continuing to encroach on how we should live and think. However, there is a growing 'discomfort' with decoloniality. The classic example is Jansen's (2019) critique that moves from making wild claims such as, "the student protests starting in 2015 added a new term to the lexicon of South African universities – decolonisation […] Literally overnight, the word decolonisation rolled off the lips of activists" (Jansen 2019: 1). Obviously, this is an epistemic extractivism (Grosfoguel 2019) that misrepresents the truth. At UNISA, I attended decolonial seminars in 2012. Just because Jansen (2019) is not aware of these initiatives, 'they never existed'. According to Ndlovu-Gatsheni, this is cynical. He writes:

> What is very worrying about Jansen's critique of decolonisation is that he does not attribute it to any work of decolonial scholars or any identifiable decolonial scholar. They seem to come from his head. What he does is to apportion his misunderstandings to decolonial scholarship in general and then quarrel with them. (Ndlovu-Gatsheni 2021: 88)

In the main, the discomfort with decoloniality/decolonisation should be read as coloniality masquerading as critical thinking. In actual fact, what Jansen is doing is what Grosfoguel (2019: 208) calls 'epistemic extractivism', which "involves decontextualizing [concepts] in order to remove the radical content and may depoliticize them in order to make them more commercially attractive". In addition, the attention on the concept 'decolonisation' would seem to confirm Keet's (2019: 204-5) assertion that it "is intended to turn decolonisation into a metaphor and thus an ideological strategy to maintain

epistemological orientations and justify existing positions". More dangerous is the fact that the so-called critique shifts the focus from the injustices created by Western dominance and deviates us from challenging the continued impact of Western epistemology.

Decoloniality thus assists in talking about the atrocities of colonialism that are in the present. So, while coloniality is critical in ensuring that we guard against the penetration of the empire, equally important is safeguarding the decolonial work for the contribution it is making. Decolonial work can be drawn from scholars such as Mafeje (1998) who exposed coloniality in 'critical' scholarship. Mafeje (1998) noted coloniality in the post-colonial critique of anthropology and wrote:

> Whether *Writing Culture* is a pastiche or hotchpotch, it is interesting and truly innovative. It also has an important message for the Third World scholars, but it has no medium for communicating with them. There might be two reasons for this. First, while it talks about Anthropology, it makes no reference to Anthropology as it is practiced by Third World scholars, if at all. Instead, it emphasises ethnographic writing as collaboration with the natives who are not a counterpart. The frontispiece of the book features a white ethnographer busy at work, writing ethnography against the background of a passive dark native. This is very symbolic and might belie the claim of 'collaborative' effort. (Mafeje 1998: 15)

In this excerpt, Mafeje raises the critical danger of coloniality, which does not SEE the Third World scholars. For instance, in the excerpt above, clearly, the critique is informed by the displacement of the 'subject' who is no longer the knowing subject. If the knowing subject does not know, no one should know. This not-knowing is thus imposed on everyone, and all of us in the academy get implicated. This is of utmost importance to pay attention to because it has a way of introducing itself even in the most radical initiatives. Third World scholars are often expected to denounce their knowledge and experience and thus produce scholarship from the position of the radical Western man. If the Third World scholars insist on bringing their

knowledge, languages, and experiences, they risk being labelled as essentialists and fundamentalists or worse, nativists! If we become the radical Westernised man, we start SEEING ourselves and present ourselves as a problem. This chapter is writing against this. The 4IR is therefore read from an African experience and knowledge.

Unmasking the Logic of the 4IR

To make sure that we reflect on the impact of 4IR, we need to provide some background information that created a fertile ground for the 4IR. In the past two decades, universities have been under pressure to produce employable graduates. Thus, the focus became the content that students get without centring the students as human beings. This has been pronounced in the commodification of the university as a response to the 'market'. This is well articulated by Koopman and Koopman (2021) as they write:

> One colleague, when asked how much time he allocates for discussions in his lectures, laughingly said, 'You are joking, right, I simply do not have the time for discussions... not even sure I'll finish my work'. In other words, instead of placing the student at the centre of the planning, design and delivery of lectures, the focus is mainly on curriculum delivery with little regard for the lived realities of the students. (Koopman & Koopman 2021: 149)

They continue to argue that, thus "the vision of universities is to become engine rooms and innovative hothouses of global capitalism, instead of guiding students to develop a better understanding of the self in the world" (Koopman & Koopman 2021:147). So, prior to the advent of COVID-19, the 4IR was already deemed a remedy to address the needs of the marketplace (Yende 2021: 57). The digitalisation of education precedes the advent of COVID-19. Prior to COVID-19, digitalisation in higher education was presented as "imperative to close the gap between the industry and the educational sector" (Yende 2021: 65). It is clear that COVID-19 is not the reason for the digitalisation in

higher education but the markets. Hence, it is argued that "[e] merging economies around the globe are rushing to figure out how to adjust their education systems to this new reality" (Jansen 2021: 136 citing Pham & Ho 2020). The 4IR is therefore driven by economic logic over and above the preservation of life.

It is not surprising therefore that when COVID-19 hit, the focus in higher education was on saving the academic year over for the markets. Even though this was not pronounced as such, one is not far from the truth when they argue that the main issue behind the "saving the academic year" was fuelled by the financial implications to universities and students alike. For Koopman and Koopman, it does not seem that the impact of the 4IR in human lives has ever been considered outside the employability of graduates. It would seem that the focus has been on the markets over the livelihood of students and educators. Koopman & Koopman (2021: 153) continue to argue that "[o]ver the last two decades, we have witnessed how students in our classrooms are viewed as raw materials in need of crafting for a market-driven knowledge economy within global capitalism". Education in this manner ceases to inculcate critical thinking in students such that they are responsive to their immediate environment.

The introduction of virtual learning and teaching is expressed by Heidegger's prediction cited by Koopman and Koopman who say

> that the final goal of all human behaviour and action is predicated on the idea of pushing maximum profit at minimum expense, while at the same time gaining control of human behaviour and optimising them as resources. (Koopman & Koopman 2021: 153).

This is evident in the education that is advanced which in the main responds to the demands of the markets. Even where student support is pronounced, the underlying tone is throughputs, not nurturing students' minds. Marwala (2022), as a proponent for the 4IR, has outlined new fields of study that universities should focus on if South Africa is to 'catch up' with the countries that have advanced in the 4IR. The idea behind these new fields is to

tackle unemployment and economic growth (Marwala 2022). So, the success of any programme depends on the employability of the graduates. One wonders how is this different from the apartheid education? According to Yende, "[t]he ideology behind the structure of the educational system indoctrinated black pupils with a culture of service dependence and sale of labour-power for survival in the economic system" (Yende 2021: 59 citing Bunting 2006; Francis & Hemson 2010; Polak 2013). The presentation of the 4IR in higher education indeed feels like we must indoctrinate students to be servants of the labour markets.

The Impact of the 4IR on Higher Education

As already posited, the chapter is not against the 4IR but is paying attention to its logic and impact. To understand the impact of the 4IR correctly necessitates understanding the global matrix of power. Assié-Lumumba (2007) argues that another important aspect to pay attention to when thinking about the transformation of African universities

> is the sheer power that is vested in the allocation of financial resources for education [...] that translates into full decision-making power and authority over all the aspects of the higher education bodies and their priorities (Assié-Lumumba 2007: 10).

The approach that higher education is taking when it comes to the 4IR must be understood in the context of financial implications. As such, the chapter is not passing judgement but aims to highlight the disruptions that emanate from these decisions. It is also important to think about the intentions of these decisions that seem to go beyond just the markets to perpetuate the marginalisation of African thought where Africa is forever behind and thus plays the catching game which makes Africans perpetual students. The introduction of technologies in teaching and learning disrupts the priorities of universities.

The disruption in the facilitation of education is often downplayed in advocacy for the 4IR. The aspect of education that is interconnected with all other spheres of existence is

undermined and the content with no context is privileged. Jansen shares his experiences of teaching as follows:

> Teaching is *a profoundly emotional activity*. Faced with a few hundred students, I rely on all my senses when I teach. I not only see but hear, feel, and touch as I move around the lecture room. As I lead a discussion of government policy on corporal punishment, I notice a student whose eyes start to tear up. It is quite possible that he is recalling a harsh experience with *lyfstraf*. This is a cue for me to soften the tone, to slow down the pace, and as I walk past the young man, to place a brief, reassuring hand on his shoulder. (Jansen 2021: 139)

It would seem, therefore, that virtual education is not interested in the whole person but the individual. African scholars such as Ramose (2005) and Ani (2013) have argued extensively on the interconnected embedded in African philosophy. So, virtual education anchored by the 4IR seemed to be drawing from a particular ideology that is individualistic. For instance, the introduction of Artificial Intelligence (AI), which according to Chaka (2022: 4)

> entails the use of programmed machines that simulate human intelligence, or the use of software programmes capable of using language, forming concepts and abstractions, solving problems, and executing cognitive tasks reserved for a human brain.

This means that the reliance on other people becomes minimal as AI can replace human intelligence. But more salient, the emphasis on the markets, reveals the logic that anchors the 4IR that privileges profits. As Koopman and Koopman (2021: 147) posit: "universities have become engine rooms and innovative hothouses of global capitalism". It becomes apparent that the 4IR is rooted in capitalism that does not care about the well-being of humanity but the maximisation of profits. The human aspect is not considered when the focus is on the markets and making sure

that we do not upset the markets. Jansen continues to show the limitations brought by the virtual and writes:

> Keeping both sides in a difficult conversation on race and admissions requires that I see, hear and feel the class. Behind a screen, such teachable moments cannot be grasped. And finally, teaching is a spiritual activity. Students (sure, not all of them) come to class to connect, to be inspired, to be heard, and to sense hope. Teaching is intended to bring out the best in students, to point to something beyond themselves. Now imagine a gallery of muted students on your screen and try to inspire those dark blocks from a little room in your attic. (Jansen 2021: 140)

Jansen is reminding us of the importance of the interconnectedness of our existence, that even in communication, it is not just about what we say – body language is part of the conversation too. It is this body language that probes responses in face-to-face engagements that sort of happen automatically. Virtual teaching disrupts the flow of the conversation and this has a direct impact on human relationships. Khunou (2023), reflecting on teaching online, writes:

> My questions would go unanswered, and my usually effective prompts for engagement with concepts I teach seemed to have lost their power to inspire conversation. I was also unable to feel the room to gauge if there was confusion, irritation, and a need to change tack and/or pause. (Khunou 2023: 97)

Clearly, the facilitation of teaching is disrupted in virtual teaching. The importance of articulating one's views becomes minimal in a virtual space because of the invisibility of oneself. The focus on technological education, for example Education 4.0, seems to be focused on hard skills at the expense of soft skills. This seems to be informed by separatist logic that seems to suggest that life is fragmented. African epistemology moves from a premise that life is interconnected, and undoubtedly, it can offer a different approach to technological teaching. This is notwithstanding

that African knowledges in higher education for the longest time have been presented as superstitions that could not be proven scientifically and thus not do not belong to the formal education system. The truth is all societies have their ways of producing and transmitting knowledge. Virtual learning and teaching are not concerned with human needs but the market needs. Chaka, looking at Education 4.0, found that:

> most of the soft-skill affordances such as communication skills, social and cultural awareness skills, critical and analytical thinking skills, creativity, problem-solving skills, innovation, empathy, responsibility, teamwork, and leadership skills referenced by some of the reviewed articles are twenty-first century skills that predate the Education 4.0 era. (Chaka 2022: 10)

The emphasis on hard skills in technological education has dehumanising effect. This dehumanising effect is two-fold. Firstly, students are turned into objects of the markets that should present the hard skills to maximise the profits. Secondly, and more enduringly, technology is presented as neutral and conceals the ideological underpinnings. This presentation of 4IR as neutral closes the space for engagements on the ideology that informs it. The assumption would seem to be the colonial assumption pronounced in the discourse of emptiness. This discourse was dehumanising because it suggested that Africans were without reason and therefore not quite human (Ramose 2005). Unmasking the ideology that informs the 4IR feels like *déjà vu*, like we have been here before. The same strategy used to colonise the world is used again, unchanged. So, I am one of the sceptics of technologies that Zeleza (2002: 2) says

> the reigning ideology of free market capitalism increasingly sees education not primarily as a social or public good, or as a human right, but as an economic investment. Consequently, universities are increasingly being turned into mills to produce and retool entrepreneurs and information operatives, instead of oases to nurture the values of democratic citizenship.

The apartheid government was mainly criticised and fought against for teaching Black students to be subservient to the labour market. Interestingly, the same logic is being introduced where the main focus is to prepare the students for the job markets instead of real life in its totality. As already posited in the previous paragraphs, virtual education produces students who are not socially aware of their immediate environment but are market-orientated. It is clear that technology is embedded in the capitalist logic that is concerned with profits. This logic is dangerous as it compromises life in its totality. Heidegger (1977: 5) argued that "[t]he closer we come to the danger, the more brightly do the ways into the saving power begin to shine and the more questioning we become. For questioning is the piety of thought". We therefore need to continue asking questions and, at the same time, look at other ways of understanding life. The call for transformation is precisely about asking more questions by opening up to epistemologies that were pushed to the periphery during the apartheid era in South Africa. It is important therefore to show the role of transforming higher education in the era of 4IR.

A Call for Transformation in Higher Education

It must be stated from the onset that digitalising is not the transformation of higher education. The transformation of the university in South Africa is about redressing the imbalances of the past. So, it is a holistic approach that is inclusive of governance, epistemologies, pedagogies, languages of teaching, and curricula. Yende explains the transformation of higher education in South Africa as follows:

> As a crucial component of institutional reform, the democratic government of South Africa adopted transformation as an indispensable phenomenon to systematically alter the pre-democratic system associated with the institutions of higher learning. (Yende 2021: 60)

Transformation in higher education is not about the facilitation of learning and teaching but the entire functioning of the

universities. The 4IR thus occupies one aspect of many in the functioning of the university and cannot therefore dictate the transformative agenda. For example, the curriculum transformation framework at UNISA has five pillars and one of them is digitisation. In fact, the opposite should happen, where the transformative agenda should dictate the implementation of technologies in higher education. Universities should not operate like hospitals where in times of crisis, there is no time to think because a life will be lost. Universities should be in a position to pause and ask more questions before a decision. This is the point of the chapter: to pause and ask questions.

It is mandatory for South African universities to transform. As such, different universities have to articulate the transformation trajectory for individual universities. UNISA developed a transformation charter to outline the goals for transformation. Among other things, UNISA declares that

> Transformation keeps us at the frontier as pathfinders: to find ever better and innovative ways of enriching the student experience, elaborating and building upon African epistemologies and philosophies, developing alternative knowledge canons and advancing indigenous knowledge systems that ground us on the African continent, without averting our gaze from the global horizon. (Unisa Strategic Plan 2016-2030: 79-80)

This declaration shows the magnitude of the transformative agenda, which is holistic. The first aspect of finding innovative ways of enriching the student experience is critical as it centres on the student experience, not the needs of the markets, which is pronounced on the employability of graduates. Of utmost importance is the declaration of grounding these innovative ways on African epistemologies and philosophies.

Against this background, it is clear that the transformation of higher education means to Africanise and to decolonise. When we talk about Africanisation and decolonisation of the universities it is important to mention that we are not starting from point zero, but we are building on the efforts of those who came

before us. In South Africa post-1994, there was intentionality to transform universities because of the role they should play in the transformation of our society. The formation of the Council of Higher Education (CHE) was precisely about transforming the university, and at the core of transformation is quality to ensure that we provide quality education. Also, to redress the systematic imbalances of the past. Hence the intentionality in articulating the discourse of academic freedom, institutional autonomy, and public accountability.

So, transformation is a response to the continued attempt to erase African knowledges. It is important to emphasise that they have not been erased because colonialism did not colonise everything. We still have our cultures to draw from. These knowledges are embedded in metaphors, proverbs, songs, art, stories, even in the names of things, just to mention a few. Indigenous knowledges are not buried somewhere far, but are in the present, being lived and are complete knowledges that shouldn't be compared to anything. They have survived the onslaught and distortion and are kept safe in the everyday practices. African people in South Africa are among the many that Mellet (2020: 19) refers to "who do not need to 'revive' the memory because they did not lose their cultures and identity. Instead, they kept it alive under the difficult and impossible circumstance". It is therefore not a complicated and difficult process to transform, but it requires willing bodies. Transformation is therefore not mimicking the so-called first-world-class universities because they are not the standard, but we have defined the standard for ourselves. Fanon spoke about the importance of not mimicking others:

> So, comrades, let us not pay tribute to Europe by creating states, institutions and societies which draw their inspiration from her. Humanity is waiting for something other from us than such an initiation, which would be almost an obscene caricature. If we want to turn Africa into a new Europe [...] then let us leave the destiny of our countries to Europeans. They will know how to do it better than the most gifted among us." (Fanon 1967: 254)

In other words, Europe is not a model of what a transformed society should look like. Ours is not to develop or civilise but to transform our societies from the thesis that Europe has put forward which "most horrible was committed in the heart of man" (Fanon 1967: 254). The envisioned transformed society is the antithesis of Europe. A transformed university will be sensitive to the plight of the poor and marginalised. The task at hand is to ensure that there is proper engagement in the future of humanity. Universities have institutional autonomy and academic freedom that is anchored in public accountability, not the markets. Just like the advent of COVID-19 accelerated the implementation of the 4IR, the 4IR should accelerate the advancement of transformation to ensure that it is not just the 'academic year' that is saved but humanity.

Clearly, the 4IR is not an enabler for the transformative agenda as its advent has exacerbated the inequalities between the rich and poor universities (Jansen, 2021; Koopman & Koopman 2021; Yende 2021). Zeleza supports this:

> Electronic technology, like most technologies, is deeply underpinned by the social and spatial inequities of gender, class, race, location, and language, which manifest and reproduce themselves in terms of such factors as access, production of content, citation systems, dissemination, and consumption (Zeleza 2002: 5 citing Zeleza & Veney, 2000)

More importantly, the 4IR is informed by the neo-liberal agenda that serves the interest of the markets at the expense of the interconnected of life. The 4IR has separated humanity from one another, so there is an urgent need to look at epistemologies capable of the restoration of life. The transformative agenda has to take centre stage and facilitate the dialogue between epistemologies in an attempt to preserve life. At UNISA, to remain true to the declaration made on the transformation charter, this is the time to seek wisdom from African epistemologies and philosophies. I, therefore, turn to African philosophy as an alternative epistemology to the restoration of life decapitated by the 4IR.

Indlela Ibuzwa Kwabaphambili: Towards the Epistemic Justice

I begin this section with a proverb, *Indlela ubuzwa kwabaphambili* (you can only ask for directions from those who have travelled the path before you), to bring a different epistemology that can shed light on the transformation of higher education. In doing so, I turn to the Indigenous people of South Africa who have travelled the path before. According to Mellet (2020: 29) "the San communities that still survive in the 21st century the oldest peoples today. [Whose] ancestors exist in the bloodlines and cultures as hidden foundations for all other African groups in South Africa today". So, the Indigenous people in South Africa "have old San communities as part of their genetic, ancestral and cultural heritage" (Mellet 2020: 32). I bring this to show that we have survived and we are still here, thus we have a past to go back to when times of uncertainties engulf us. We have the people to ask directions from to understand the African epistemology.

In the first book of the Holy Bible, we are told that after God had created everything, he said: "Let us make man in our image, after our likeness" (Genesis 1: 26, Holy Bible, King James Version). We are learning here that without man, the creation is incomplete. The advancement of technologies without man is not progress. At the centre of all progress is a "man". Africans have the understanding of this. Hence, the philosophy is *ubuntu*, which can only be practiced by *umuntu* (a person). In African philosophy, the understanding is that one's existence is dependent on others. The proverb, *umuntu ngumuntu ngabantu* (a person is a person because of other people), is precisely the acknowledgment that one's existence is dependent on others because it is others that can confirm one's humanity. Without a relationship with other humans, one can never be sure about their humanity. So being human is relational. With this understanding, one is therefore obligated to preserve the life of the next person over and above one's needs, hence the seSotho proverb "*feta kgomo o tshware motho* (means that if and when one is faced with a decisive choice between wealth and the preservation of the life of another human being, then one should opt for the perseveration of life" (Ramose 2004: 752-753). This means the next person takes precedence

over oneself (Radebe 2024). This is embedded in Indigenous education as Assié-Lumumba (2007: 25, citing Ajayi et al. 1996: 4-5) argues that

> It is now clear that indigenous education involved far more than ward-looking process of socialisation [...] indigenous education produced and transmitted new knowledge necessary for understanding the world, the nature of man (sic), society, God and various divinities.

So, from an African perspective, education is not just about transmitting content necessary for the job market but is inclusive of life in its totality. It is about ensuring that all citizens are responsive to their environment. As such, African epistemology brings a different understanding to the economic logic that in fact the person *(umuntu)* is wealth. It will follow then that if African epistemology was at the centre of the advancement of technologies, the well-being of humans would be the priority over profits. For example, during COVID-19, the language in higher education would not have been to save the academic year but rather to save lives. It must be stated that life does not just refer to physical life but social and spirituality too. From an African epistemology, the restoration of a person is privileged. The focus on human life is ensuring the harmonious existence of life, which ensures that *umuntu* is not dislocated from the cosmic order that orientates human actions. According to Ramose (2005: 46), peace is preceded by justice because "peace without justice is the dislocation of *umuntu* from the cosmic order". It is important that human action is anchored within the cosmic order so that everyone abides by the principles of *ubuntu*. Reciprocity sustains *ubuntu*, without reciprocity *ubuntu* dies. It is in this context that the preservation of *umuntu* takes precedence over materiality.

Today we are faced with dominant logic that decapitates human life for profits. There is an urgent need to find ways to restore life. African epistemology that is premised on *umuntu* seems to be the much-needed philosophy to save the world. The African worldview understands the universe as one whole, where everything is in it. So, when theorising from an African worldview, a theorist cannot get outside the universe to see it

objectively because they are in it. In other words, the theorist does not think as an individual and sees things that other people cannot see. Hence, Ani (2013) argues that in an African epistemology, a theorist theorises from and for the community. This means transformation should take the communities who are the custodians of these knowledges seriously. This understanding that life is interconnected and interdependent means that to produce knowledge in an African setting one cannot break things into atoms but should make the connections. By using the proverb *indlela ibuzwa kwabaphambili*, I argue that other epistemologies outside Western epistemology still exist and can be used to inform the transformation agenda.

Conclusion

The advent of COVID-19 fast-tracked the implementation of the 4IR in higher education. The crisis presented by COVID-19 closed any possibilities for honest engagements around the pros and cons of the 4IR. As such, the 4IR was presented as a solution to the crisis. The unintended results emanating from the 4IR, because everyone had to learn to swim or sink, are concealed in the rhetoric of the future. This chapter attempts to pause and try to understand the logic of the 4IR and its impact on the transformative agenda in higher education. It would seem that the 4IR has reduced the transformation in higher education to mean new technologies for learning and teaching. However, true transformation in our context is about redressing the imbalances of the past to ensure justice. Clearly, the 4IR is not one size fits all. There are more compelling reasons to open up the debates on the transformative trajectory. More research is needed that will 'study up', using Kekana's (2024) expression to understand the logic of the 4IR and its intention. The takeaway from the chapter is in unmasking the logic embedded in new technologies that seem to displace a person. It offers a different logic to understand wealth that privileges *umuntu*. To conclude, I bring Ndlovu-Gatsheni as he argues that:

> Indeed the whole world is experiencing the deep and catastrophic effects of double crisis. The crisis is both

> systemic and epistemic. The epistemic part has led to the reopening of the basic epistemological question and set in motion planetary epistemic struggles that are simultaneously unmasking what has been concealed by Eurocentric epistemology while searching for new knowledges capable of taking the world out of the epistemic crisis. (Ndlovu-Gatsheni 2018: 37)

So, the transformative agenda in higher education must facilitate the search for new knowledges capable of creating a world that is more just.

References

Ani NC. 2013. Appraisal of African epistemology in the global system. *Alternation.* 20(1):295-320.

Assié-Lumumba T. 2007. *Higher education in Africa. Crises, reforms and transformation*. Dakar: CODESRIA.

Chaka C. 2022. Is Education 4.0 a sufficient innovative, and disruptive educational trend to promote sustainable open education for higher education institutions? A review of literature trends. *Frontier in Education*. 7:1-12. https://doi.org/10.3389/feduc.2022.824976

Fanon F. 1967. *The wretched of the earth*. London: Penguin Books.

Grosfoguel R. 2019. Epistemic extractivism: A dialogue with Alberto Acosta, Leanne Betasamosake Simpson and Silvia River Cusicanqui. In B de Sousa Santos & M Menses (eds). *Knowledges born in the struggle: Constructing epistemologies of the global South.* Oxford: Routledge. 203-218. https://doi.org/10.4324/9780429344596-12

Heidegger M. 1977. *The question concerning technology and other essays.* Lovitt, W. (trans.). New York, NY: Harper & Row.

Holy Bible (King James Version). 2012. Genesis 1: 26. Vereeniging: Christian Art Publishers.

Jansen JD. 2019. Making sense of decolonization in universities. In JD Jansen (ed). *Decolonization in universities: The politics of knowledge.* Johannesburg: Wits University Press. 1-12. https://doi.org/10.18772/22019083351.5

Jansen JD. 2021. What does it mean to teach in the shadow of COVID-19? A critical reflective essay on the future of online teaching in South African universities. In N Amin & R Dhunpath (eds). *(Re)learning to teach in contexts of crises. Alter*nation African Scholarship Book Series Volume 8. Durban: CSSALL. 132-144.

Keet A. 2019. The plastic university: Knowledge, disciplines and the decolonial turn. In JD Jansen (ed). *Decolonization in universities: The politics of knowledge.* Johannesburg: Wits University Press. 202-211. https://doi.org/10.18772/22019083351.15

Kekana L. 2024. Beyond the "single story" of vaccine hesitancy: "Studying up" a public health response to vaccine associated with polio in South Africa. *Anthropology Southern Africa.* 47(1):73-84. https://doi.org/10.1080/23323256.2023.2265968

Khunou G. 2023 Voice recognition in the era of virtual reality: Disruption of normative social meaning-making. *Clinical Sociology Review.* 18(2):83-101. https://doi.org/10.36615/csr.v18i2.1486

Koopman KJ & Koopman O. 2021. The dark side of online teaching and learning in South African universities. In N Amin & R Dhunpath (eds). *(Re)learning to teach in contexts of crises.* Alternation African Scholarship Book Series Volume 8. Durban: CSSALL. 145-168.

Mafeje A. 1998. Anthropology and independent Africans: Suicide or end of an era? *African Sociological Review*. 2(1):1-43.

Marwala T. 2022. *Closing the gap: The Fourth Industrial Revolution in Africa*. Johannesburg: Macmillan. https://doi.org/10.36615/9781776402304-01

Mellet PT. 2020. *The lie of 1652: A decolonised history of land*. Cape Town: Tafelberg.

Mignolo WD. 2011. *The darker side of Western modernity: Global futures, decolonial options.* Durham: Duke University Press. https://doi.org/10.1215/9780822394501

Ndlovu-Gatsheni SJ. 2018. *Epistemic freedom in Africa: Deprovincialization and decolonization*. New York, NY: Routledge. https://doi.org/10.4324/9780429492204

Ndlovu-Gatsheni SJ. 2020. Global economy of knowledge in transformative global studies: Decoloniality, ecologies of knowledges, and pluriversity. In SA Hamed Hosseini, J Goodman, SC Motta & BK Gills (eds). *The Routledge handbook of transformative global studies.* New York, NY: Routledge. 69-83. https://doi.org/10.4324/9780429470325-5

Ndlovu-Gatsheni SJ. 2021. Internationalisation of higher education for pluriversity: A decolonial reflection. *Journal of the British Academy.* 9(1):77-98. https://doi.org/10.5871/jba/009s1.077

Ndlovu-Gatcheni SJ & Zondi S. 2016. The coloniality of knowledge: Between troubled histories and uncertain futures. In SJ Ndlovu-Gatsheni & S Zondi (eds). *Decolonizing the university, knowledge systems and disciplines.* Durham, NC: Carolina Academic Press. 3-24.

Radebe NZ. 2024. *Ukukhonza* as an ethic-oriented ontology to ensure harmonious existence among AmaZulu. *HTS Teologiese Studies/ Theological Studies.* 80(2). https://doi.org/10.4102/hts.v80i2.9085

Ramose MB. 2004. Globalization and ubuntu. In PH Coetzee & APJ Roux (eds). *The African philosophy reader.* 1st edition. New York, NY: Routledge. 732-761.

Ramose MB. 2005. *African philosophy through ubuntu.* Harare: Mond Books.

Unisa Strategic Plan 2016-2030. UNISA_StrategicPlan_2016.pdf. https://staff.unisa.ac.za/statuc/intranet/content/strategicdocumentandpublications/document/Unisa strategic plan_2016.pdf

Yende SJ. 2021. A transition towards the Fourth Industrial Revolution (4IR) in the South African education sector: A perspective from rural-based higher education. *AJDS.* 11(2):55-75.

Zeleza PT. 2002. African universities and globalisation. *Feminist Africa.* 1. https://www.jstor.org/stable/48726057