

TRANSHUMANISM AND EMERGING TECHNOLOGIES: EXPLORING ETHICS AND HUMAN ENHANCEMENT IN AFRICA

Leo Igwe^{*}

Abstract

We live in a time that breathtaking technological wizardry promises to radically transform human lives and the world. The transformation process, which drives the *Fourth Industrial Revolution*, lurks at the horizon with enormous appeal. Profound benefits and changes due to breakthroughs in robotics, artificial intelligence, and biotechnology stare humankind in the face. But the situation in Africa calls for caution because technology gap exists and may persist. While emerging technologies hold the promise of eradicating diseases, poverty and the mortality rates, the African technological differential from the rest of the world poses a crucial challenge to the progressive and optimistic outlook of transhumanism. The technology gap raises ethical, bio-political and techno-political questions. This paper brings an African perspective to these issues and challenges. It explores ethical implications of the project of human enhancement including the prospects and possibilities of using and applying emerging technologies in contemporary Africa.

Keywords

Transhumanism, emerging technologies, Africa, technology gap, human enhancement

1. Transhumanism and Emerging Technologies: Exploring Ethics and Human Enhancement in Africa

This article examines the intersection between transhumanism and emerging technologies. It brings an African perspective to the discourse on human enhancement and transhumanist futures. Reports on transhumanism have highlighted the potential of emerging technologies to eliminate ageing and

^{*} Department for the Study of Religions (Islam, African Publics and Religious Values), University of Cape Town, South Africa. <https://orcid.org/0000-0001-5244-965X>.

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unnecessary suffering, enhance human health, and achieve resurrection and immortality (Wilson, 2021). There has been news about how Artificial Intelligence (AI) is impacting various aspects of life including healthcare (WHO, 2021), travel (Hornyak, 2020) and religion (“God and robots”, 2021). The possibility of science and technology to accelerate the liberation of the mind from bodily confines has been discussed (Joseph, 2021). The potentials of humans’ symbiotic relationship with smart technologies have been acknowledged (Sudhakaran, 2021). But a cursory look at these accounts shows that transhumanist discussions overwhelmingly focus and reflect situations and realities in western countries and other non-African contexts. These reports articulate how AI and other emerging technologies are transforming how people live, work, do business, treat diseases and worship in Japan (“Japan firm releases”, 2021), the UK (Kollewe, 2021), and the United States (Hambling, 2021).

2. Debate On Transhumanism

Popular and academic literature on transhumanism emphasizes the centrality of technology in the project of human modification. In fact, the transhumanist philosophy is predicated on a technology-mediated transcendence of the human, and the deployment of technoscientific knowledge to realize profound changes, and futures for humanity. Kurzweil (2014) explains the tendency of technologies to radically and irreversibly transform human lives and facilitate the achievement of singularity. He suggests that the pace of technological change could be so rapid and impactful in ways that would irreversibly transform human lives and lead to the emergence of intelligent or spiritual machines.

FM-2030 (1974) argues that technologies are critical to the future evolution and limitless possibilities of human kind because technologies could be deployed to cure death, and defeat diseases and aging. In the same vein, Vita-More (2020) challenges the issue of human aging and the finality of death by proposing three conditions. These conditions are: aging is a disease, augmentation and enhancement to the human body and brain are essential for survival, and human life is not restricted to any one form or environment. Vita-More claims that in the light of these conditions, new technologies and advances in sciences would help forge a positive outlook and future. Other transhumanist scholars and technoprogessivists (Bostrom, 2008; Sorgner 2016/2020; Hughes, 2012) have espoused an optimistic outlook of future technological advancement. They have argued and defended a positive future for humans through life extension, enhancement of human health and wellbeing through an ethical use and application of technology such as AI, nanotechnology and genetic engineering.

3. Objections to Transhumanism

However, it is not all scholars that are enamored by the prospects of transhumanism and the project of human modification (Kass, 2003, p. 9). Many philosophers and scientists are conservative in their approach and disposition. Unlike transhumanists, bio-conservatives are angst-full about the prospects of human enhancement. They have warned about looming catastrophes, and some technological *Armageddon* that

awaits humanity (Habermas, 2001/2003; Levin, 2020). These intellectuals are of the view that the application of emerging technologies could usher in a dark and gloomy future for human beings (Fukuyama, 2004; Carson, 2021).

Levin (2020) questions transhumanists' commitment to the mind, brain, ethics, liberal democracy and reality describing their much-touted humanity's self-transcendence into posthumanity as pure and alluring fantasy. Levin clearly misses the point here because the technologies of the present used to be fictional permutations of the past. Carson (2021) underscores the potential dark side of technological advancement as envisioned by transhumanists including the danger that unfettered and politicized technological pursuits pose for humanity. Habermas (2001/2003) is of the notion that the transhumanist movement comprises a handful of freaked-out intellectuals who indulge in fantasies of large-scale versus small-scale 'man breeders'.

Fukuyama (2004) who is widely known for his scathing critique of the transhumanist movement, describes transhumanism as the world's most dangerous idea with some catastrophic potentials for human beings. He suggests that emerging technologies pose a mortal threat to humanity and human equality given the commitment of transhumanists to transforming human beings or producing superior humans. Fukuyama suggests that some risks are associated with preselecting human traits, extension of life spans and over-abundance of psychotropic drugs.

Fukuyama (2004) makes a very pertinent point. He stresses the implications of emerging technologies for the citizens of the poorest countries in the world. Fukuyama argues that the marvels of biotechnology would likely be out of reach for the world's poor. Emerging technologies, he claims, would reinforce global inequality, and disadvantage impoverished regions of the world.

4. Realism versus Optimism

It is undeniable that transhumanism is a movement influenced by science fiction (Hottois, 2017, p. 63). Transhumanists are not unaware of the fictional undercurrents in their visions and propositions (Pearce, 1995, p. 6). Sorgner (2016/2020, p. 2) admits that some form of utopia is embedded in the transhumanist outlook but that does not make transhumanism a utopia. Transhumanists are cognizant of the fact that any form of technological invention or innovation comes with its dangers; and that there are actual and potential risks in the use of existing or emerging technologies to modify human life (Bostrom, 1998, 2005; Sorgner, 2016/2020, p. 13). Transhumanists stress the ethical use of technologies and the applications for human enhancement and maximization of life. They are aware that emerging technologies pose a dilemma, hence they link progress, advancement and improvement to an ethical use of these technologies. Transhumanists are of the view that the benefits that would accrue from the application of these technoscientific facilities outweigh the potential harm.

Now, whether transhumanism is a safe or a dangerous ideology, a promising fantasy or a failed hypothesis; whether transhumanists are part of a cult movement or a group of wild intellectuals immersed in a philosophical Russian roulette with emerging technologies, as conservatives have imagined, a snag exists. There has been

a limited consideration of Africa in the debate. The transhumanist literature²⁹ overwhelmingly speaks and draws from the technological life situation in the western society (Sorgner 2016/2020, p. 10). Transhumanist essays make universal, worldwide claims about the future directions of the world and human beings in the light of these technologies (Davis, 2021). These projections and prognostications have largely been informed by non-African technological life situations and contexts.

There has not been an adequate exploration of African techno-scientific realities and conditions in relation to transhumanist outlook and prospects. Africa is one of the seven continents of the world with a population of over a billion people (Worldometer, 2021). In fact, transhumanist ideas could be of enormous benefit when applied in an African context. They would be relevant when used in commentaries on the realities that many Africans face. The idea of technology's ability to overcome the limitations of the human condition could have the greatest payoff for Africans. As technologies such as mobile phones and cryptocurrencies, have shown, the incremental impact of technoscientific facilities on standards of living can be said to have been the greatest precisely for Africans. Any technologies that could transform humanity and its future must take into account the situation in the region. In fact, the African continent has socio-political and economic ties with the western and eastern parts of the world and deserves significant consideration in the debate on human enhancement.

5. Transhumanism and African Cultures

African scholars have attempted to weigh into the conversation on the modification of humans, exploring the compatibility or lack thereof between transhumanism and African cultural philosophies (Ewuoso & Fayemi, 2021). Studies have proposed that the transhumanist outlook is in tandem with African philosophies (Fayemi, 2018; Ewuoso, 2021). Ewuoso (2021) draws attention to the connection between transhumanism and African humanism as encapsulated in the philosophy of Ubuntu. He argues that, far from being conflicting, the relationship is complementary and reinforcing. Ewuoso suggests that both outlooks are promising and protective of progressive views of the futures of human beings. The author further argues that the Ubuntu philosophical accessories could be rallied in the realization of transhumanist futures and visions. In the same vein, Fayemi (2018) is of the notion that African conception of personhood is consistent with the transhumanist outlook. He suggests that African normative and ontological ideas of personhood are embedded in the transhumanist philosophy. Metz (2018) rejects the transhumanist compatibility with African philosophy. He claims that transhumanist ideas are capable of undermining communal relationships and other traditional values.

However, a critical look at these explanations indicates some imbalance and one-sidedness in situating transhumanism and African philosophy. In an attempt to

²⁹ Thanks to Gennady Stolyarov for drawing my attention to critical points and insights including the idea that a dearth of transhumanist literature could be attributed to the fact that few African transhumanists exist. And with more African transhumanists emerging and engaging the topic, the literature will grow.

reconcile transhumanism with African cultural notions and philosophies, scholars have ignored key elements. Transhumanism earned its place within the universe of philosophical discourse not based on the tendency to align with traditions or validate classical humanism, but based on the proclivity to interrogate, transcend and go beyond humanism and in the case of the Ubuntu philosophy. Instead trying to reconcile transhumanism and the Ubuntu philosophy, African scholars should rather be exploring the idea of trans-Ubuntu because transhumanism thrives on the tendency to transcend, or go beyond, previous or current ideological frameworks and worldviews, without necessarily conflicting with those frameworks and worldviews.

Thus, transhumanism is more than humanism, but it is not opposed to humanism and can even be said to be a logical extension of humanism (Stolyarov, 2013).

In fact, these studies have largely ignored the impact of the use and application of emerging technologies on the lives of Africans. Since technology is central to the transhumanist enterprise, it is important to consider the African technological situation in relation to human enhancement. African technological capabilities are critical for the realization of humanity's self-transcendence. So, how could an ethical application of emerging technologies be realized with the prevailing circumstance in the region?

6. Technology Gap and Limitations

African countries have not kept pace with technological advancement in other parts of the world. Africa has variously been described as technologically backward, underdeveloped or developing (Sagasti, 1973, p. 47; Ogungbure, 2011, p. 91). These designations represent African technological realities and propensities. The bottom line is that technologically speaking, Africa is not at a par with developed regions such as Europe and America. These regions are in control of their technological process; they are constantly upgrading their capacities and capabilities (UNCTAD, 2003). Whilst African countries lag behind other regions. One should not lose sight of the fact that possibilities and opportunities exist in Africa that may be lacking in other parts of the world. For example, because of the lack of *legacy* infrastructure from prior eras, it may be easier to rapidly build out the most up-to-date technological infrastructure in Africa—e.g., focusing on mobile telecommunications instead of traditional *landlines*, focusing on decentralized finance and cryptocurrencies instead of traditional banking, and in the future building the most advanced road, rail, and utility infrastructure instead of relying on infrastructure that is sometimes 50 to 100 years old, as is the case in many parts of the United States.

However, the contemporary techno-scientific situation has made Africa dependent on the rest of the world for its technologies. African countries heavily rely on technology transfers from other parts of the world including China (Li, 2016, p. 183; Danquah, 2018, p. 175). Put differently, the technologically advanced part of the world largely has enormous influence on Africa and African technological state.

African countries trail behind countries in other regions; they have little or no say in the global techno-politics, and bio-politics and other drivers of human enhancement project. African countries are passive players in the technological field. Or better, they are on the fringe of discourse, research and application of

technologies. In fact, Africa has become a continent where countries are always trying to leapfrog, close the technological gap (Utoikamanu, n.d.), and catch up with the rest of the world (Drine, 2012, pp. 21–55; Alzouma, 2005, p. 339).

More worrisome is the fact that African countries have largely become a dumping ground for outdated, second hand, fairly used technologies from the advanced and developed nations. This technological equation persists and constitutes the definer and determinant of the place of Africa in the techno-political world. The techno-political situation leaves Africans countries in a very awkward situation. The presence of junk, second hand technologies raises ethical questions because some of these goods pose enormous dangers to humans and the environment (Schmidt, 2006).

Scholars have noted the existence and impact of a technological and digital divide between Africa and the West (Fuchs & Horak, 2008, p. 99). They have argued that technology gap undermines Africa's business capacities (Elmawazini & Nwankwo, 2021), telecommunications (Adam, 1996, p. 133) production of agricultural products (Nkamleu et al., 2010, p. 6). Against this background, how could this gap influence a technology-intensive and sensitive program such as human enhancement and the technology-based outlook of transhumanism?

7. African Situation and Transhumanist Visions

Africa is a continent plagued by poverty, disease, hunger, low life expectancy and high mortality rates (SOS Children's Villages, 2021). One must acknowledge that life expectancy has improved since 2000 from the low 50s to the mid-60s. Although life expectancy in Africa is still behind the rest of the world, it is important to note that no country had life expectancies above 40 in the early 19th century. Thus, Africans today already enjoy better circumstances than did the Europeans during the 18th-century Age of Enlightenment, and yet the humanist philosophies of that era were able to catalyze great advancement and improvement in standards of living. It is quite possible that transhumanism, if applied to Africans' circumstances by African transhumanist thinkers who are closely familiar with the day-to-day realities, could catalyze similar or greater progress.

But the dire life situation in contemporary Africa is linked to global as well as local biopolitics and technopolitics. The global technological power play has consigned African countries to the margins of good life and development. While the application of existing technology has led to the discovery of cures to diseases, alleviation of poverty and suffering, increase in wealth and prosperity in many parts of the world, much of the good has not equally reflected on many parts of the globe. Existing technopolitics has created a world that has left most African countries trapped in poverty and as permanent occupants of the bottom sections of the Human Development Index. There is a tendency to adopt a conservative approach towards the project of human enhancement and its proposed benefit to humanity. This approach inclines one to be cynical and to dismiss transhumanists as neocolonial propagandists. Many transhumanists may have no desire to engage in any neocolonial activity and rather hope that a transhumanist movement will emerge within Africa. One is likely to pitch tent with Fukuyama and other intellectuals who are of the

notion that transhumanist romance with emerging technologies would reinforce global inequality and further alienate the impoverished part of the world.

Human modification is a technology-intensive and enabling enterprise. For transhumanists, staying healthier, and living longer can be achieved through biotechnology, cryonics and mind uploading (Sorgner, 2016/2020, p. 2). With the existing technology regime, how could this technologically intensive program be achieved?

How will transhumanist ideas propel transcendence of the prevailing technology divide that has left countries in Sub-Saharan Africa impoverished and disadvantaged? Even though the countries in Sub-Saharan Africa were even more impoverished and disadvantaged before these technologies arrived, and there are significant areas of impoverishment and disadvantage that still have not been remedied because the technologies have not been deployed.

How would the application of emerging technologies radically transform the region for good? Will the use of emerging technologies not turn Africa into a continent of outdated transhumans? Given that the project of human enhancement is technology-based, and new and more efficient technologies continue to emerge, conservatively speaking, there is likelihood that Africa would turn into a region of lesser transhumans, second-hand transhumans, junk transhumans, and third-world transhumans? Many transhumanists would not think this would be a concern because any transhuman enhancements will be better than the status quo, including in currently more prosperous countries and regions of the world.

Transhumanists are of the notion that enhancements will give enhanced individuals greater ability to innovate more rapidly starting from any situation in life and quickly catch up to those who are not enhanced. It is ultimately the absolute fulfillment of various basic human needs, rather than the relative differences among humans, that matter most. Now if transhuman enhancements offer the vast majority of Africans the opportunity to lead significantly longer lives in health and abundance, it may not really be a problem that someone else, somewhere else might have access to a slightly more cutting-edge device or medical treatment.

Again, any transhuman enhancement will greatly expand the capability of those with that enhancement to pursue entrepreneurial activities that bring about the creation of local sources of production and technological innovation. The real problem now is that many Africans are still lacking in very basic, human, biological needs of survival. This is a problem of absolute lack, rather than relative inequality—and transhumanist technologies could remedy this problem quite effectively if they are widely deployed.

Thus, transhumanists refuse to allow their fears to dictate or determine their outlook. They advocate an ethical use of emerging technologies based on the potential to reduce needless suffering and improve human life. These technologies would help realize bionic implantation, emotional, and cognitive enhancements. They would help humans break away from biological limitations and overcome other existential challenges that encumber human life, health and happiness.

In the face of so many problems, Africa stands to benefit from the application of AI, nanotechnology and genetic engineering. Hope lies in exploring the potentials

and possibilities of emerging technologies. The transhumanist approach is quite plausible because these technologies would capacitate countries to tackle and eradicate poverty, hunger and diseases. The statistics on hunger and diseases in Africa are disturbing. Apart from Asia, sub-Saharan Africa has the highest number of undernourished people (Action Against Hunger, 2021). Over 400 million people face hunger in the region. According to the WHO, diseases cost Africa 2.4 trillion dollars a year (WHO Africa, 2019). These diseases include communicable and non-communicable health conditions. It has been noted that both hunger and diseases undermine growth and productivity of Africans (The World Bank, 2017). Millions of Africans suffer hunger and malnutrition due to absence of requisite technologies. Thus, a conservative approach that supports a ban on these technologies holds little or no promise for African countries in search of development breakthrough. A ban would only perpetuate the status quo and prolong the dire living conditions in the region.

Transhumanism presents a better and more promising option. However, a realization of the transhumanist promise will be predicated on two forms of overcoming—overcoming human biological limitations and then overcoming the technological gap that hamper the ethical use and application of these technologies. Human enhancement technologies may be available but many African countries are unable to access or use them. Countries are unable to deploy the latest techno-scientific knowledge due to existing policies. Policies that stifle technological progress need to be dismantled. While the technology gap poses a challenge to human enhancement in the region, the challenge could be addressed and resolved through policy shifts and changes. African countries need to rescind obsolete policies and regulations that hamper the use and application of sophisticated technologies. Indeed, policy changes are some of the most promising ways to overcome the technology gap.

If technologies have already been developed, and Africans constitute huge potential markets for those technologies, then lifting a lot of the policy-driven obstacles to the dissemination of those technologies can go a long way toward getting those technologies in Africans' hands. Beyond serving as markets for developed technologies, policy changes could also enable African countries participate and collaborate in the research and development of emerging technologies.

Rwanda has demonstrated that a policy change is possible and could help bridge or better narrow the technology divide (Lasry, 2020). A plan of action-as has been the case in Rwanda-would enable African countries harness the promises and possibilities of emerging technologies. Rwanda has put in place a national emerging technology strategy and action program. The country has shown that the application of AI, nanotechnology and genetic engineering could help solve problems in education, health and agriculture (Lasry, 2020). Other African countries need to emulate and replicate such initiatives.

8. Conclusion

This article has argued that African countries have particular technological situations and these technological realities require a re-envisioning and reconceptualization of

the intersection between humans and emerging technologies. A conservative approach to human enhancement offers little or no hope because it apparently endorses the status quo. And the socio-economic status quo is in dire need of creative disruption, positive change and transformation. The transhumanist approach is a more plausible framework to progressively engage African development predicament because it is informed by a vista of opportunities and possibilities. However, transhumanist ideas and visions are global in nature and nurture, and have in principle radical, universal, trans-western implications. Nonetheless, disparate technoscientific realities apply across countries and regions of the world especially in Africa. These local situations must be taken on board in explaining and conceptualizing the impact and possibilities of emerging technologies on human, in this case African human, futures. Transhumanist discourses draw and speak to particular situations- European and American life, socio-political, economic, scientific and technological situations. They tend to ignore realities in African countries, which are often not in tandem with western life situations. Existing science and technologies relate differently to humans across the world. Western countries are at the lead; they are at the forefront and cutting edge of scientific discoveries and technological developments. Whilst African countries remain in the margins. Thus, chances and possibilities of altering or enhancing human abilities and capabilities tremendously differ, while enormous potentials, promises and possibilities exist. So, it is pertinent to further the ideas of transhumanism in Africa in a way that takes into consideration African specific situations. It is necessary to ethically apply technologies for human enhancement in diverse contexts and situations, recognizing the moral and material challenges that such applications would bring.

Given Africa's enormous problems and challenges, countries need to put in place policies and programs that could enable them achieve double overcoming of biological and technological limitations, and optimally embrace and harness the positive visions and possibilities of transhumanism.

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