Shifting from 'AI Solutions' to 'AI Coloniality': Resignification of Artificial Intelligence and Digital Apartheid

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The study explores the evolving role of Artificial Intelligence (AI) beyond its perceived neutrality, delving into its politicization particularly in the Global South's digitalization context. It argues that once seen as a neutral problem-solving tool, AI has transformed into a politically charged entity, embodying biases rooted in its creation and training processes. This transformation marks a shift towards AI colonialism, where corporate interests intertwine with extensive data extraction practices, raising concerns about extractive colonial power dynamics. The discourse of AI colonialism underscores the interdependence of AI, corporate interests, and the extraction of meaning, prompting a re-evaluation of regulatory frameworks to mitigate profit-driven activities. Furthermore, the article examines how AI's intersection with data extraction facilitates societal surveillance, leading to Digital Apartheid in Sub-Saharan Africa—a manifestation of racial capitalism in the digital age. This Digital Apartheid perpetuates social segregation based on race through AI-driven technologies, exacerbating biases that disproportionately affect people of color. The article advocates for open discussions on digital and AI ethics to address these challenges to counteract racial discrimination and foster a more inclusive and equitable technological landscape. Overall, the abstract highlights the complex socio-political dimensions of AI, urging for proactive measures to mitigate its negative impacts and ensure fair and just technological development.

Keywords: *artificial intelligence; AI coloniality; digital apartheid; racial capitalism*

Introduction

Artificial Intelligence, commonly known as AI, has become a powerful tool in solving socio-political issues, especially in boosting economic growth, eliminating poverty, and transforming government bureaucracy (Forbes Technology Council, 2019). It has emerged as a promising solution, called the 'art of government', to achieve sustainable development, particularly in countries that rely on the informal sector and gig economy. According to McKinsey & Company's report (2023), AI refers to a machine's cognitive capability to perform tasks typically associated with human intelligence, such as problem-solving, learning, reasoning, perceiving, interacting with the environment, and even demonstrating creativity. Companies that implement AI can enhance their efficiency and profitability. The rise of AI

adoption in the financial technology industry, regulatory sandboxes, and start-up companies is considered a panacea for various social problems, promising innovation to tackle complex social, economic, and political challenges (McKinsey & Company, 2023). Nevertheless, the discourse on AI's technological advancement offers a comprehensive framework of 'AI Solutions', which often leads to a shifting view towards 'AI Coloniality', where its potential problematic effects overshadow the promises of AI's utopian ideals in the recent decade.

According to Subex (2023), AI Solutions is a terminology of utilizing Artificial Intelligence through deep Machine Learning and translating it into real cases and problems. It executes the real problems humans face, which are straightforward to society as a problem-solving mechanism.

Nelson Maldonado-Torres (2007) emphasizes that coloniality differs from colonialism in terms of its operationalization, but it has the same power influence that controls certain people and regions in the world. Coloniality is an emerging power structure resulting from colonial legacy, which operates beyond colonial administration. In the era of imperialism and neoliberalism, coloniality is perpetuated by culture, labor, power, knowledge production, and technology (Maldano-Torres, 2007, as cited in Ndlovu-Gatsheni, 2015). Knowledge production is crucial in maintaining colonial legacies, especially in digitization and technological advancements, which uphold businesses' power in different countries. Giant technology companies like Facebook, HSBC, and Google mainly use AI to extract data over what they perceive as a development 'trusteeship' of technology in Africa, which needs further revision (Birhane, 2023). Campaigns like *'Connecting the Unconnecte*d' by Facebook, *'Building a Future on Bytes and Boxe*s' by HSBC, and *'Equiano*' by Google, named after a Nigerian boy named Olaudah Equiano, highlight the problematic aspects of AI usage (Broussard, 2018).

The concept of freeing individuals from the enduring effects of colonialism and enslavement has led to a new perspective on knowledge creation. The fusion of human rights and technology has become integral to promoting pro-market strategies, but it has been at the cost of authentic human rights. One illustration of this is the emergence of Bretton Woods Institutions and the rise of post-Washington Consensus eta, where human rights become a mainstream policy in good governance, including the World Bank, the IMF, OECD, and the UN (Whyte, 2019). Consequently, the idea of AI serving as a panacea for societal challenges has lost significance, resulting in heightened social strife, monopolistic markets, and disparities due to this mainstreaming human rights policy. This has led to questioning the positionality of ethics and its possible narrative critically.

This article aims to explore the nexus between AI, colonialism, and Digital Apartheid and answer two significant questions: (1) What does the shift in meaning from 'AI Solutions' to 'AI Coloniality' signify in the context of digitization, and how can we comprehend it in light of data extraction in Africa? (2) Why does data extraction perpet-

uate 'AI Coloniality' and create a discourse of Digital Apartheid under capitalism's mode of production in Africa? The study argues that data extraction intensifies the shifting attitude towards AI in the digital realm, which maximizes profit over social welfare and neglects political consequences and public governance within the state. In the context of AI colonialism, corporate tech monopolies, including FinTech, start-up companies, and regulatory sandboxes, often engage in the discourse of data extraction. The pattern of corporate data extraction became a source of conquest, inventing a legal framework to perpetuate, legitimize, and justify inequalities within the Global South and post-colonial countries. In addition, the notion of 'AI Solutions' utilizes a racial argument as a racial control in several regions, shaping the 'norm' surveilling civil society's behavior within states, known as the Digital Apartheid. Digital Apartheid is a relatively new terminology in this research where the colonial legacy as a form of power perpetuates within the era of digitalization and the emergence of emergency in the 21st century.

This article delves into the historical context of AI solutions concerning capitalism. It critically analyzes the prevalent discourse on data extraction, which falsely represents human capital as natural. The article argues that the shift from 'solving with' to 'colonizing with' AI has resulted in data being used as a form of colonial subjugation, leading to Digital Apartheid. While the article acknowledges the importance of technological advancements and government capacity, it also presents a broader epistemological debate on the socio-political trajectory of technology. The primary concern is not the development of AI itself but rather the extractive business model of neoliberal capitalism, which bears similarities to the colonial era before 1945. The article employs an intersectional critical political economy framework that draws from Marxist, post-colonial, and post-structural theorists to present a comprehensive understanding.

Methodology

This study employed a qualitative methodology to examine the shifting attitudes toward Artificial Intelligence in social and political spheres. Critical Discourse Analysis (CDA) was used to supplement the analysis of the AI narrative presented by major technology corporations in the Global South. The study contrasts the discourse of AI as a positive force for society with the effects of colonialism, resulting in a shift in attitudes towards technology. Fairclough notes that CDA challenges established social order by utilizing normative and semiotic traditions from the social sciences (Schiffrin & Tannen, 2001). The research relied on secondary sources, including journal articles, websites, historical records, newspapers, online and digital campaigns, and data from multinational corporations and international governmental organizations. The primary purpose of utilizing the critical discourse analysis tradition was to demonstrate that technology has a political stance and is not neutral.

While it may be neutral as machinery and goods, it can be highly political when utilized by people for specific purposes, especially in the context of technology development in the Global South, as conveyed by big tech companies in the Global North. Overall, this study heavily focuses on the global context and offers a glimpse into Sub-Saharan Africa as a continent. The historical genealogy of colonialism and capitalism in Africa is well-suited to building an argument for AI Colonialism and Digital Apartheid in the context of the knowledge production narrative in the Global North. It provides a holistic understanding that online campaigns are part of political tools used to maximize profit in the context of the technology business ecosystem. It also directs the discourse of the political economy of platforms and AI.

The Trajectories of Artificial Intelligence (AI)

In today's increasingly interconnected world, Artificial Intelligence (AI) has become a vital tool for addressing various challenges across various sectors. Its ability to improve society without political bias makes it valuable in tackling issues such as education, healthcare, finance, and governance (Forbes Technology Council, 2019). According to Dr. Thomas Ferretti (2023), *The Ethics and Politics of Artificial Intelligence*, AI is a neutral form of knowledge focused on specific skills rather than political agendas.

"*Because technology like artificial intelligence (AI) and machine learning (ML) can be understood as the knowledge of specific techniques, skills, and know-how, this perspective has led many to perceive technology itself is neutral: only the way we decide to use it in society determines whether it has good or bad effects...*"
(Ferretti, 2023).

However, while AI technology holds immense potential for utilization by individuals, corporations, and international entities, its practical implementation in the real world has sparked a contentious debate within the field. As one of the most influential players in the tech industry, Google has been actively advocating for the use of AI to accelerate global development goals in underdeveloped regions of the world, particularly the Global South (Manyika, 2022). With this in mind, Google established the Google AI Centre in Ghana, aiming to address a long-standing issue that threatens the country's food security and overall safety: the timely detection and containment of potential disease outbreaks (Manyika, 2022).

The exponential growth of Meta AI in developing Machine Learning (ML) technology has also proliferated by 2.4 times globally in the last two years, from 2019 to 2021 (Gupta et al., 2020). This growth is not limited to Google alone. Additionally, the amount of generated data increases, reaching the exabyte scale or an extraordinarily large unit of data (Wu et al., 2021). While these developments are considered neutral tools, they undoubtedly have specific intentions and impacts on society and environmental issues. Big technology corporations have a trusteeship to build sustainable development agendas, but this can become a tricky tool for appointed states, especially with narratives such *as "developing the undeveloped," "con-*

necting the unconnected," and *"banking the unbanked*" (Broussard, 2018). These narratives are significant justifications for profit maximization and market monopolization in the Sub-Saharan Africa continent, where Silicon Valley powerhouses such as Facebook, Google, and Netflix dominate nearly all of Africa's digital ecosystem, threatening the local market economy of platforms (Kwet, 2019a).

Relationship of Racial Capitalism and Coloniality Power in AI

The interconnectedness of colonialism, capitalism, and data extraction relies on the concept of racialism as a "legacy" of colonialism and an imaginary line between the Orient and the Occident (Said, 1978). According to Arun Kundnani (2023), the origins of modern capitalism predate the existence of pre-capitalist societies, and capitalists use racialized arguments to weaken social ties and contracts in working-class communities. Ellen Meiksins Wood (2017) supports this view and argues that racialism serves the interests of capitalists in wealth accumulation in all social contexts while shifting attention away from the fundamental problem of working-class and capitalist relationships, which are characterized by fragmentation and displacement. For Wood, racialism works best under the capitalistic mode of production where exploitation does not occur in the social status. However, it works closely under political-economic relations through the market (Wood, 2017). Racialism also divides the working class and the capitalists, making it harder to recognize the legacy of violence, slavery, wealth accumulation, and capitalism. Cedric Robinson, who actively opposed racial discrimination within the capitalistic superstructure from California to South Africa (Kundnani, 2023), retained the idea of combining racialism and capitalism.

Cedric Robinson introduces the concept of "racial capitalism," a prevalent terminology between two intertwined units: racialism and capitalism. He argues that all forms of capitalism are racial capitalism, always relying on racialized arguments, regardless of how capitalism operates (Robinson, 2019). In his book *Black Capitalism,* Robinson uses the word "Black" not only to refer to skin color or a distinct race but also as a discourse of solidarity, meaning that all people have the same politics and political fate in every country, including African, Afro-Caribbean, and Asian people (Robinson, 2019). It is a shifting discourse where "Black" is a form of political liberation for all alienated people of color. So, how can we understand racial capitalism as part of coloniality? For Robinson, racial capitalism is an inseparable social system and structure that perpetuates the existing power relations between racialism and capitalism, not stopping the pre-capitalist social structure of apartheid and racial slavery. According to him, the origins of this issue are intertwined with European racism or "racialism," a phenomenon that existed before the emergence of capitalism, colonialism, and the slave trade. This issue permeates the fundamental structures of Western culture, which posits a "racial calculus" that has been perpetuated and elaborated upon by successive European ruling powers and propagandists, both secular and clerical, dating

back to the twelfth century at the very least (Robinson, 2019).

AI colonialism uses the same logic of colonial power as the architecture of digitalization and technological advancement, which is thoroughly embedded within the concept of racial capitalism. As Michael Kwet (2019a) exemplifies, digital colonialism aims to maximize profits through big technology companies that exert their power in the Global South. Surveillance capabilities and data accumulation have opened coloniality in the digital era, such as using data software, computational infrastructure, cloud computing, and Artificial Intelligence (Kwet, 2019a). The main difference between classic and AI colonialism is their required raw material. Data is a novel type of raw material in the digital era and functions as a consequential commodity in the world of technology for expanding the business model of big technology companies. Google and Facebook, along with their rivals Alibaba and Tencent, use their customers' data as a political tool to combine their use and exchange values (Kwet, 2019a). These functions can generate personalized ads and track the behavior of their customers, which could lead to the idea of racial surveillance and digital apartheid.

From Fetishizing AI to Colonizing AI

The widespread impact of AI on various sectors has sparked a socio-political debate about its role in society. Some express concern that AI may be over-hyped and mystified. While AI has undoubtedly brought advancements and solutions in the digital space, there is a risk of society placing too much trust in this intangible asset that relies on Big Data and Cloud Computing (Feretti, 2023). This trust and legitimization come from various stakeholders, including national and international entities, and the power dynamics between big tech companies and government authorities. To address these concerns, Digital Switzerland (Eichensehr, 2019) has emerged as a popular idea in the technology ecosystem and government policies, emphasizing the need for cooperation between corporations and government. It's worth noting that big tech companies are not opposed to the idea of digital governance. They view AI as a neutral tool without any political leanings in its implementation (Eichensehr, 2019).

Although the idea of Digital Switzerland as a means of improving AI technology is a popular topic, it must be recognized that this discussion is highly political and involves various power relations and interpretations. The choice of Switzerland as a comparison word within the digitalization of AI is reasonable, as many neutral international organizations have headquarters in Geneva. However, it is important to note that Switzerland's image as a neutral country does not apply to the historical political economy and establishment of market-driven capitalism (Singh, 1977). Switzerland has a pro-market-driven policy of neoliberalism that aligns with the AI business models of big technology corporations. Neoliberalism was first introduced by the Mont Pelerin Society in 1948 in Switzerland, and it reflects the birth of market-driven policy in the ge-

nealogy of capitalism (Whyte, 2019). This approach minimizes government authorities and regulations of businesses, and it has allowed U.S. big technology companies, such as Facebook, Apple, Microsoft, and Google, to exert power relations vis-à-vis government policies. These companies have over 1.47 billion daily active users worldwide, making them a significant force in the AI technology-based business landscape (Wu et al., 2021).

Second, the big technology companies are not impartial and politically neutral without any intentions. All the Silicon Valley corporations join in products downstream in Global Value Chains (GVCs) and Global Production Networks (GPNs), where they have all headquarters back in the United States (Birhane, 2023). Although Google built a Google AI Centre in Accra, Ghana, as a retrieving tool for urban planning development, such as mapping buildings, forecasting floods, predicting locusts, and enhancing education, all the AI implementation and the knowledge production of AI have come from the United States which emerge to be a new form of colonialism: data extraction and surveillance (Nelson & Walcott-Bryant, 2023). The concept of AI reappropriation involves merging the extractive practices of capitalism from colonialism's past with the abstract notions of use and exchange value in AI and data. Despite discussions surrounding AI coloniality, it remains impossible to disregard the truth behind extractive data mining and its role in generating profits. Therefore, data can be considered a new form of raw material and commodity that exists both abstractly and concretely.

Subjectification of Data in AI Coloniality

Data is a vital commodity in AI technology, much like oil in our society's digital architecture and data processing practices. However, AI coloniality arises from the normalization of resource extraction and the shifting meaning of data (Birhane, 2023). There are two arguments to consider when discussing data as a part of colonial subjectivity and digital commodity extraction by big tech companies. Firstly, civil society unconsciously shares its data daily, creating a narrative of trusteeship towards consumers and users. This promotes a colonial mindset of primitive accumulation that prioritizes data for profit-driven purposes and fast-tracks economic growth on national and international levels. Secondly, corporations harness individual data owners to advance their AI technology, resulting in power dynamics within society and the political economy order (Birhane, 2023). This process, known as accumulation by dispossession, allows companies to accumulate data to enhance their AI capabilities while society and individual users remain unaware of exploitation. It is crucial to understand that data is not merely an intangible concept or a vague metric but an ongoing discourse that fuels power dynamics within our society.

Second, data extraction can lead to a new form of colonialism in everyday life, creating a new social knowledge production within the age of AI technology. As Nick Couldry and Ulises A. Mejias (2019)

confirm, this phenomenon generates a new social relation within the political order, processing raw data inputs to create new economic value. Even before the widespread use of AI technology, data has always been closely related to social life, as Bruce Scheiner (2015) pointed out, meaning the politicization of data has already emerged within the social structure. Big technology corporations use individual data to track their consumer's behavior and personalize recommendations that appear to be a natural fit. However, this process creates 'data doubles' where digital duplication of an individual's life happens and spreads across multi-platform information systems (Jones, 2018).

In South Africa, the use of Smart Networks Camera for civil society surveillance perpetuates the Digital Apartheid, fueled by racial tensions within capitalism, particularly in a region marked by a long and painful history of apartheid. This is an illustration of AI coloniality. The Smart Network Camera that manifests as a CCTV Surveillance is a product manufactured by Vumacam Ltd. that was originally used to combat crime in residential neighborhoods. However, over time, the technology has translated into acts of racism in South Africa and generated the concept of digital apartheid.

Racial Surveillance as a Manifestation of Digital Apartheid

Digital apartheid, distinct from conventional apartheid legislation, manifests as a nuanced power dynamic between capitalists and consumers, potentially fostering structural and cultural violence and perpetuating racial discord. Its historical antecedents, not exclusive to Sub-Saharan Africa but notably apparent during the 19th-century British occupation of the Boer States in South Africa, were characterized by social segregation grounded in racial parameters (Beinart & Dubow, 1995). Maurice Evan's seminal work in 1916, "Black and White in South East Africa," significantly shaped racial segregation by categorizing individuals based on skin color into 'Black' or 'White.' Evan's delineation of three principles—asserting white dominance, parliamentary compliance with policy decisions, and race-based separation—served to perpetuate racism in Sub-Saharan Africa, deeply embedding racial separatism in the social structure (Evans, 1916). This ideology, fracturing the social contract and capitalizing on economic value, has left an enduring legacy even after the official termination of apartheid legislation in South Africa in 1994 (Beinart & Dubow, 1995).

Questions arise regarding the extent to which the cessation of apartheid legislation corresponds to the eradication of its form institutionally or if social segregation persists due to the enduring legacy of colonial power and global capitalism. The emergence of digital apartheid as a contemporary form of colonial power engages scholars such as Michael Kwet, a theorist in technology colonialism, along with journalists Karen Hao and Heidi Swart. Despite the formal abolition of apartheid, persistent power imbalances influence negotiations between capitalists and consumers. Major technology corporations utilizing Artificial Intelligence (AI)

and data processing systems are construed as contemporary colonizers, contributing to a novel colonial world order in the Global South (Kwet, 2019c). The ascendancy of non-state actors, notably national or multinational corporations, in shaping global society is increasingly conspicuous. Empirical evidence of digital apartheid in South Africa is discernible through the deployment of Smart network cameras (CCTV), exemplified by Vumacam, for societal surveillance in locales such as Parkhurst and Soweto (Kwet, 2019c). In the post-apartheid era, South Africa has sought justice, crime mitigation, and residential safety, with intelligent camera surveillance systems emerging as a salient solution. Corporations like Vumacam offer comprehensive services, encompassing state-of-the-art hardware, fiber internet cable installation, data storage, and video management analytics software tailored to the evolving needs of their discerning clientele:

"Smart CCTV surveillance, powered by AI, aims to solve this problem. Machine learning systems perform video analytics to recognize things in the video, such as objects or behaviors. With enough cameras, computers could intelligently "watch" the neighborhood and notify private security forces in real-time when the algorithm detects something it deems suspicious."
(Kwet, 2019c)

The corporation is executing a strategy to monopolize the industry in the country by introducing a comprehensive integration of intelligent network camera ecosystems. This initiative entails the replacement of antiquated neighborhood Closed-Circuit Television (CCTV) systems with state-of-the-art, Artificial Intelligence (AI)-driven cameras and fiber-optic internet cables. The amalgamation of intelligent cameras with fiber cables facilitates valuable data collection, contributing to the development of advanced AI technology stored in a centralized database. As Karen Hao and Heidi Swart reported in 2022, the company has already deployed more than six thousand of these intelligent cameras, predominantly concentrated in Johannesburg, specifically in Parkhurst and Soweto.

An investigation by iSentry unveiled 14 instances categorizing individuals as 'suspicious,' with 28 individuals identified for 'unusual behavior.' Strikingly, all these individuals shared the common characteristic of having black skin within a predominantly white residential neighborhood (Kwet, 2019c). However, subsequent inquiries established the innocence of these individuals, as their activities were routine, encompassing actions like regular walking, returning home from work, or engaging in construction work with associated equipment. Adding to these challenges, Beagle Watch, a private security entity operating within the Vumacam ecosystem, propagated a discriminatory campaign targeting potential 'beggars' and 'vagrants' (Hao & Swart, 2022). This initiative employed criteria such as facial hair, skin tone, scars, and tattoos for identification purposes. Notably, this biased campaign has been integrated into the Vumacam algorithm, unfairly singling out individuals with black skin as prone to engaging in suspicious activities. This insinuation perpetuates the stereotype that people of color are predisposed to crimi-

nal behavior, with artificial intelligence exacerbating these racial assumptions through its discriminatory algorithms and decision-making processes.

Furthermore, the racial stratification evident in Johannesburg is accentuated through the socioeconomic dynamics influenced by intelligent surveillance cameras. The Department of Statistics of South Africa (2019, in Kwet, 2019c) underscores the prevalent poverty in the country, disproportionately affecting the Black population. The subjectivity associated with varying skin tones and their correlation with social and economic standing becomes apparent when affluent White individuals equipped with intelligent cameras perpetuate prejudiced attitudes and stereotypes toward individuals of different racial backgrounds. This inadvertently highlights a semblance of the historic apartheid system, characterized by segregation and alienation based on skin color differences. However, this contemporary manifestation is veiled under communal security narratives, safeguarding the interests of the white population and the technology industry.

Conclusion

In conclusion, the role of Artificial Intelligence (AI) as an advanced technological tool extends beyond neutrality, evolving into inherently political entities. This evolution, particularly in the context of the digitalization of the Global South, imbues AI with multifaceted and politically charged meanings. The shift of AI from a neutral problem-solving tool to an instrument of colonization introduces biases within the socio-political sphere. These biases are rooted in AI's initial training and creation, raising concerns about the extractive colonial power dynamic mediated through extensive data collection practices. A nuanced examination of AI, corporate interests, and data extraction intertwines to form a discourse of AI colonialism. This discourse highlights the interdependence of AI, corporate interests, and the extraction of meaning, prompting a re-evaluation of the implications for regulating human activities often geared towards profit maximization.

Moreover, the intersection of data extraction and societal surveillance by AI catalyzes a critical examination of AI Coloniality, chiefly manifesting as a form of Digital Apartheid in Sub-Saharan Africa. This Digital Apartheid epitomizes the ramifications of racial capitalism in the digital era, perpetuating social segregation based on race through the utilization of AI-driven technologies. The acknowledged tendency for AI to exhibit biases reflective of its designers underscores its propensity to target people of color disproportionately. Addressing these concerns necessitates open discussions on digital and AI ethics to counteract racial discrimination and promote a more inclusive and equitable technological landscape.

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