

Centering Africans in the Digital Scramble for Africa

By

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Once again, western superpowers are scrambling to conquer Africa's resources. Unlike in previous centuries, however, the resource is data. In their zeal to improve the accuracy of machine learning and AI algorithms, western Big Tech giants have resorted to expanding their reach to the dataset-rich African continent, where inadequate or non-existent data protection laws fail to protect local populations. Many African nations find themselves unprepared for the onslaught because there are so many infrastructural issues that they have had little ability to prepare for this new form of colonization. Until now, data issues were considered "soft" or western problems of less immediate concern. In fact, the Africans were not wrong in their focus. Infrastructure and education are indeed the main concerns, but simultaneously western tech companies are conducting a new digital colonialism bringing in algorithmic technologies, which cause more harm than the supposed benefits they claim. Some African expatriates like Dr. Timnit Gebru, Dr. Abeba Birhane, Dr. Rediet Abebe, and others offer trenchant analyses of the current situation of digital colonization. This paper adopts their criticisms to argue that African nations must protect themselves against colonization and instead choose informed, publicly debated African-generated initiatives that advance African education and digital infrastructure. I call for a strategy that centers Africa: One that educates Africans in their schools as well as all public institutions, so that when tech colonizers come supposedly philanthropic benefits, Africans are prepared to negotiate their interests and shape their own digital communities as they wish.

Upon first speaking with Dr. Gebru at her May 4, 2022 talk, "Disrupting Big Tech:

Independent, Community-Rooted AI Research focused on Africa & the African Diaspora,” at Stanford University, I thanked her for her advocacy for Africa and somewhat naively asked if there was a way to “rein in” and use tech corporations to serve our own visions of a sustainable, inclusive African development, one not merely for elites, but for every African. She told me she also had this hope when she worked in Ghana on behalf of Google, but quickly saw the exploitation of Africans, tried to report problems, and was brushed off repeatedly. Google infamously fired Dr. Gebru in December 2020, and later her co-lead of Google’s Ethics AI team, Dr. Margaret Mitchell, over resistance to their now widely cited paper “On the Dangers of Stochastic Parrots” (Bender et al.). Taking this important paper and other critical work describing the harms of big tech in Africa seriously, I reflected on the environmental disasters compute hungry large language models (LLMs) are causing for Africa (Weidinger, et al.; Bommasani, et al.) and on the many other social and political disasters the digital scramble for Africa has inflicted. Thus, I reflect on a position I hear from so many Africans who are living and working in Africa, who want foreign investment but only that which preserves their sovereignty over the digital futures (Côté-Roy et al.). Looking at the recent history of investments in Africa, I ask what types of initiatives might best center Africa.

To better understand the problem of African digital colonization, I shall elaborate on a set of actors, these are people and institutions foreign to Africa that who assumed the role of investor or would-be philanthropist in Africa. This analysis includes several notoriously deleterious Big Tech ventures in Africa. After having set this context, I will then consider whether, given all the harms and the very few examples of positive outcomes, there are indeed approaches to working with tech companies in Africa. I shall then conclude with ways to center Africa and advocate for sovereignty over our digital future.

Context:

Africa is a young developing continent, which maintains a pervasive myth that imported infrastructure and technologies are always better than local. We see this in many instances, take for example, the disastrous Belt and Road Initiative, where African leaders proved too optimistic about China's loans for development with the hopes of reaching their developmental goals, failing to carefully consider the immense long term economic debt tied into the deals (ZiroMwatela and Zhao; Rolland). Western Big Tech, meanwhile, likes to present itself as the democratic and friendly alternative to China. Yet, these corporations are negatively impacting populations in the countries they are based in, deepening social divides with the promise of wealth, exacerbating poverty, and exploiting workers and the environment (Carmody and Owusu). In response, they have been facing backlash from these populations. The African context, however, remains complex, especially because until only recently, African leadership began to understand such data-oriented and software problems as urgent and not merely "soft problems" (Barry and Fourie). Because Africa has a plethora of other important developmental issues like infrastructure and education, there are still too few voices on the continent who speak to the negative impacts of AI in Africa, and there are too few local activists to help populations resist big tech interventions that might be harmful.

Actors:

Who is scrambling for Africa, what constitutes Big Tech, and what exactly has Big Tech done in Africa? Firstly, this is a global scramble for data, however, a resource-rich continent like Africa is sure to attract its fair share of ambitious western and nonwestern companies willing to surmount the barrier of poor infrastructure to reach a broader market. Typically, these companies

tend to be large established corporations. For the sake of this paper, the specific big tech and or western companies I will refer to are Facebook (now Meta), Google, Microsoft, and the now defunct SCL Group subsidiary, Cambridge Analytica.

Facebook:

Facebook has been involved in a couple of seemingly positive initiatives that have ended up having negative impacts in Africa. One such example is their ongoing Free Basics initiative. At its core, the program seeks to “address the three barriers that prevent people from coming online: affordability, access, and awareness” (Free Basics FAQ). They do this by “allowing people access to a range of internet services for free.” This project claims to close the technological knowledge gap in developing countries. However, a closer inspection of what Facebook does reveals sinister motives behind the “reaching the next billion” goal. In his paper, “Access Granted,” Thouissant Nothias investigates the true motivations behind Facebook’s Free Basics program and their general involvement in the African continent. Reflecting on the important backlash that the project faced in India which resulted in the project never reaching the implementation stage in India, Nothias expresses alarm at the quiet expansion of the program into Africa that followed. He attributes Facebook’s advancement on the continent to its adjustment of its vision statement and policies, a shift from a profit-oriented venture to disguising it as a philanthropic undertaking. He links Facebook’s success in penetrating Africa to the African governments’ unwillingness to heed the concerns of digital rights activists.

Cambridge Analytica:

In conjunction with Facebook, the now-dissolved political firm, Cambridge Analytica, was a major influence in the outcome of the 2017 Kenya elections. The incumbent president first

tallied forces with the political firm to enhance his chances of victory in 2013, however, the duo failed. During the 2017 election campaign, however, the odds were in their favor. A greater proportion of the Kenyan youth population now had access to the internet and consequently Facebook. According to a CNBC report about Cambridge Analytica in Kenya, the US, and the UK, “It is alleged to have used data gathered from Facebook users via a third-party app to influence votes, including in the U.S. presidential election and the Brexit referendum, both in 2016” (Crabtree). A hidden U.K. Channel 4 camera recorded evidence of such meddling in Kenya’s election with the managing director of Cambridge Analytica describing his company’s influence over Kenyan President Uhuru Kenyatta’s previous two election campaigns (Crabtree). Although Facebook’s involvement was indirect, they remain complicit in the misuse of the citizen data they collected. A platform, which boasts having 2.80 billion monthly active users worldwide, Facebook has access to massive quantities of unique data points about people that not even governments have about their populations. This massive data capture raises questions of the uses to which Facebook deploys its collections from Africa and what Africans might do to protect themselves.

Foreign Researchers:

African data is also available to researchers who serve a variety of ends that do not necessarily benefit Africans. Many of these endeavors are funded either by Big Tech or universities and institutions with Big Tech funding. African researchers and activists abroad have long cautioned about the harms of corporate data capture in Africa. They have amply shown how in part Big Tech’s colonization gains legitimacy from the narratives that researchers tell. Thus, in our efforts to combat digital colonization it is also important to ask “who is writing about us?” Abeba et al. also show that non-Africans produce the bulk of research and are funded by foreign

institutions to collect datasets from African settings. Many of these reports favor “deficit narratives,” which focus on stereotypes and use their funds to prove those narratives that show how Africa is supposedly so abject as to need western technology (Abeba et al.). These narratives not only justify corporate intervention, but they also do little for young Africans seeking educational advancement, and exclude educated Africans who hope to contribute to technological sovereignty on the continent. Furthermore, it is important to note that when foreign researchers collect data and export it back to their respective countries, those datasets that were gathered from Africans will, nine times out of ten, become foreign intellectual property and thus will no longer be easily available to African researchers who would want to make use of the same data. African researchers are most likely to not have the same resources and funding as their foreign counterparts, and thus are unable to conduct the same level of quality of research on their populations. These widespread practices have the effect of stifling African researchers. On the global platform, African researcher voices are therefore overshadowed by the many foreign researchers from prestigious institutions. In effect, African stories are told by non-Africans. It is not that the stories themselves are always incorrect, rather it is that the stories are detached from their original settings. Following Abeba Birhane and Sabelo Mhlambi’s perspectives, Africans should write their own narrative of algorithmic justice and decide for themselves when they want technologies and how they should be deployed.

Centering Africa:

African-centered approaches to building the digital future Africans want remain divided into two main camps: The activists who seek to educate Africans about algorithmic harms, and those who believe it is in our best interest as African countries to attract western corporations to bring their technologies and development, though be it at the cost of giving up some of our data.

Those in favor of the latter position point to the example of Microsoft's *One Laptop Per Child* initiative. In 2005, at the World Economic Forum, Nicholas Negroponte revealed his new endeavor to help bridge the technology gap in Africa (Markoff). He envisioned giving less privileged African schoolchildren \$100 laptops to teach themselves and each other. Although this initiative remained mired in problems, with many Africans pointing out that the need for "clean water" was much more urgent, the project sparked innovation in the tech industry to develop cheap laptops specifically for the world's poorest populations (Robertson). What started as a philanthropic publicity stunt claiming to help African kids eventually helped some Africans learn a little about computers, although they were not connected to the internet. In the end, the project had some effect on a wider demographic. Yet, such foreign corporate philanthropic promotions do little for systemic change or public well-being in Africa, and while there might be some local benefit, there is a high price to pay in sovereignty. Africans do not simply want westerners' promotional projects, corporate or corporate-funded efforts that make westerners money and help them feel good about themselves but bring technologies that we neither need nor help our own advancement. Africans want infrastructure, clean water, access to the internet, and coding education. As of March 2019, Africa had an internet penetration rate of 39.3%, amounting to 527 million users. Currently, Sub-Saharan Africa accounts for almost half of the global population that remains not covered by a mobile broadband network. Since the end of 2019, mobile internet adoption has remained around 26 percent (Nanfuka).

Many more examples abound, where supposed offers of connectivity remain ventures owned by foreigners that fail to broadly serve Africans. Google, acting in competition with Free Basics, launched its Csquared initiative in 2011. Google "aimed to build metropolitan fiber-optic networks, which would be leased by Mobile Network Operators (MNOs) and Internet Service

Providers (ISPs) on a wholesale model, and as a neutral operator of shared infrastructures.” The long-term vision for Google was “to increase Internet penetration in Sub-Saharan Africa and also to reduce Internet access costs by investing in the required infrastructure” (CSquared). In 2017 Csquared branched off from Google and became an independent company and has continued to expand its work in Africa. Currently, “CSquared owns and operates over 890 km of metropolitan fiber in Kampala and Entebbe in Uganda; more than 2000 km of fiber in 5 cities in Ghana: Accra, Tema, Kasoa, Kumasi, Takoradi, and 180 km in Monrovia, Liberia” (CSquared). Gaining connectivity is a primary African goal, but here we have yet another case, where Africans do not own the innovations that investors build in Africa.

We Africans need our own path to connectivity and data protection laws to be put in place. Inspired by the EU’s General Data Protection Regulation, many African countries have now at least started drafting their versions of data protection laws. About half of Africa’s 54 nation-states have either stated or passed their data protection laws (Coleman). I call for *more* African countries to pass data protection laws to protect their people. I also call for the African Union to draft a basic set of continental data protection acts that each African country must at least have as a baseline. Supporting and shaping these acts, we need a wide-reaching open conversation around what African ethics should be and what kinds of AI might benefit Africans. Not only should we help young Africans to code, we must educate them about their digital rights and help them choose projects which benefit Africa. While much of the AI western corporations are of little use to the larger African public there are some great projects on NLP for low resource languages, which include African languages (Orife, et al.). Such projects could thrive at African universities and eventually serve many Africans on the continent—provided we get the connectivity we need and own ourselves. These conversations require educational plans in

African schools, corporations, and government institutions. Similar conversations like the indigenous AI ethics dialogue that resulted in the indigenous protocol and AI of Canada should be promoted (Lewis). Thus, there needs to be a wide-scale educational effort, led by African educational institutions in partnerships with African educators, activists, computer scientists in Africa and abroad. Only with such an educational program can Africans and their governments make informed decisions about which technologies they want and which will promote greater technological and data sovereignty for Africans.

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