Principles of Afro-feminist AI Data

Visions of Afro-feminist Emancipatory, Liberatory AI (VELAI)

POLLICY

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Preamble

In attempting to envision Artificial intelligence (AI) systems that are emancipatory and liberatory to all peoples, this background paper follows the afro-feminist approach in its inquiry and the resultant propositions it puts forward.

The idea of Afro-feminism was advanced by Ugandan scholar Dr Sylvia Tamale in her book Decolonization and Afro-feminism[1]. Fundamentally, afro-feminism distinctly seeks to create its own theories that are linked to the diversity of the realities of African women as a way of challenging all forms of domination they encounter particularly as they relate to patriarchy, race, sexuality and global imperialism.

Afro-feminism, like other feminist approaches, calls for the need to move away from symbolic gestures of inclusion to engendering inclusion in all parts of our lives. Although much of the mainstream, western feminist praxis and theories call for the deconstruction of the various avenues of oppression faced by women by exposing the limits of any system of ideality established as reality[2], afro-feminism adds to the idea of reconstruction. This basically suggests working towards reclaiming our human dignity as African women, reasserting our self-determination as well as decentring western hegemonies of knowing and culture.

With this understanding of Afro-feminism, we are then able to imagine creative frameworks of inquiry outside dominant ways of knowing to find meaningful and contextually relevant ways of addressing the marginalisation of African women in relation to the development and deployment of AI systems across the African continent.

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[1] (n.d.). Decolonization and Afro-Feminism - Aliadas em movimento. Retrieved February 28, 2023, from https://aliadasemmovimento.org/site/wp-content/uploads/2021/02/Sylvia-Tamale-Decolonization-and-Afro-Feminism-1.pdf
[2] (n.d.). DERRIDEAN DECONSTRUCTION AND FEMINISM: Pam Papadelos. Retrieved February 28, 2023, from https://digital.library.adelaide.edu.au/dspace/bitstream/2440/39506/9/01front.pdf

Introduction/ Problem statement

AI refers to a set of technologies that allow machines to function intelligently and mimic human sensing, comprehension, and action[3] with functions such as computer vision, speech recognition and natural language processing.

The state of development and adoption of AI on the African continent can generally be viewed as burgeoning, especially after the COVID-19 pandemic which accelerated the adoption of digital technologies and services.

Ordinarily, effective AI adoption is dependent on a number of factors such as having a trained local workforce to develop and oversee these systems, sufficient infrastructural capacity to handle AI systems, representative datasets, governmental support and regulation to govern appropriate use of these technologies as well as independent civil institutions and policymakers that safeguard from development and adoption of harmful systems and reinforce accountability among other factors. These are sorely lacking in Africa at the moment which explains AI's limited proliferation on the continent.

Currently, the AI ecosystem on the continent is predominantly made of systems adopted within the public sector such as biometric IDs and passports as well as facial recognition technologies among other use cases. One might argue that the public sector is where AI has mushroomed the greatest across much of the continent. However, away from this is the presence of big tech which grows with greater access to mobile devices and internet connectivity as well as a growing domain-specific AI startup ecosystem in the private sector.

While these AI systems are envisioned to ease many parts of our day-to-day lives and thus improve our social and economic systems, they also pose new challenges as they are developed and deployed across the continent. For instance, broader issues such as AI's capacity to disrupt political processes by effectuating political decisions in opaque ways, automation, the potential to change nature of warfare by introducing autonomous weapons, as well as AIs significant environmental impact due to its energy requirement come to the fore when discussing risks of AI systems.

Given that many of these AI systems are developed in the global north, it is also unsurprising that many of the soft laws or recommendations developed to address these risks majorly reflect the values of the west. While Africa is not a homogenous whole, frameworks developed towards responsible and ethical AI development in Africa ought to be contextually appropriate.

Thereby, basing on the premise that the social cannot be separated from the technical and the virtual is institutional[4],this Afro-feminist AI policy paper is intended to correct the historical exclusion of African women from the AI discourse by guiding Internet and Tech policymakers on the African continent in critically thinking about and including this often sidelined group in their policy making.

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[3] (2023, January 1). Artificial Intelligence in Africa: Emerging Challenges | SpringerLink. Retrieved February 28, 2023, from https://link.springer.com/chapter/10.1007/978-3-031-08215-3_5
[4] (n.d.). Watch Coded Bias | Netflix. Retrieved February 28, 2023, from https://www.netflix.com/title/81328723

The Problem

Data

AI technologies are data driven which speaks to data's centrality in AI. This is important based on the value of data in today's world, which is greatly hinged on issues of data ownership or possession.

Using the afro-feminist lens, we centre data as a socially constructed element which means that AI aligns with human preferences, interests, and values during both its design and usage all across the AI pipeline from data sourcing to application of the models. Scholarship on this dynamic has indicated real impact on people and communities especially the already marginalised on for example their freedoms and welfare arising from the structural inequalities and power asymmetries[5] between the developers of these models and the end users or persons whom these AI models are used upon.

In addition to the value leadenness of data and resultant AI models is the issue of near invisibility of African women from this realm due to limited datasets representative of this demographic. A reluctance to obtain these datasets to realise more non exclusionary AI systems is seen usually on the pretext of it being an expensive endeavour. Once again, the issue of power arises since those that are developing these models literally have the ability to decide which demographic to include while developing and who to exclude.

Lastly, the quality of data used to develop any models is also critical to the discussion since in many ways this determines the quality of outputs of the models. The examination of quality of data is especially important in analysis of harm arising from an AI system. For instance, using low quality data to develop a model for sensitive use cases such as a health model could pose life threatening or endangering effects. Generally, data quality speaks to how a dataset meets criteria such as accuracy, completeness, validity, consistency, fitness for purpose[6] et cetera. The quality of data therefore corresponds to how much these criteria are met making it either high or low quality.

In closing, data has a huge role to play in the resultant AI models we encounter in our day to day proving Joy Buolamwini's remarks that 'in many ways data is destiny'.[7]

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[5] (2022, June 8). Automating Ambiguity: Challenges and Pitfalls of Artificial Intelligence. Retrieved July 3, 2023, from https://arxiv.org/abs/2206.04179

[6] (n.d.). What is data quality? - IBM. Retrieved July 3, 2023, from https://www.ibm.com/topics/data-quality

[7] (2017, March 9). Joy Buolamwini: How I'm fighting bias in algorithms | TED Talk. Retrieved February 28, 2023, from https://www.ted.com/talks/joy_buolamwini_how_i_m_fighting_bias_in_algorithms

Datafication

This is broadly the turning of something that has never been treated as data or even imagined having an informational quality into a numerically quantified format[8]. Datafication is far reaching and distinct from simply turning analog content into machine readable data as it basically involves taking all aspects of life and turning them into data. This can be social media engagement, e-commerce, the use of Internet of Things devices such as sensors and other gadgets that can transmit data over the internet or other networks et cetera.

Resultantly, this transformation of social action into online quantified data has allowed for new forms of value such as real-time tracking and predictive analysis by whoever controls this data which is also a central element to today's Big data ecosystem. In addition, this value system poses immense economic benefits for the data controllers as well as benefits such as targeted or personalised advertising adduced for the data subjects on the other hand.

However, while there can be benefits from this real time tracking and predictability, it is hard to ignore some dehumanising impacts of such models such as surveillance and a loss of privacy[9], categorization from profiling that may lead to exclusionary or discriminatory outcomes[10] as well as the existence of people in a largely extractive digital world today. Moreover, the persistence of these negative impacts even in the face of research that has shown the extent and magnitude of these issues speaks to an even more far-reaching issue which is power and control.

The organisations chiefly benefiting from datafication and its consumer profiling and targeting ways are a select few billion-dollar corporations broadly termed Big Tech. These embody a digital capitalism[11] whose larger goal is that each moment of data mined ad infinitum is turned into a resource for profit making and capital generation. In the absence of sufficient legislation and disabling industry norms curtailing their practices, these continue to do all this largely unchecked which has in many ways set the precedent for even smaller AI start-ups which also tend to think of some of the above-mentioned violations as normal or of minimal risk.

As governments across the African continent continue to incorporate more AI systems into their governance procedures and operations, there is also still largely a lack of transparency when it comes to certain decisions. For instance, there isn't much discussion about what increasingly datafied African societies will look like. A good example is the smart cities which are a big part of the conversation now. A great question to ask is how ready governments are to mitigate the negative impacts of datafication especially in the face of weak legislation towards that end in many parts of the continent.

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[8] (n.d.). The Rise of Big Data | Brown CS. Retrieved July 7, 2023, from https://cs.brown.edu/courses/cs100/lectures/readings/riseOfBigData.pdf
[9] (2011, August 9). Zuboff,+Shoshana.The+Age+of+Surveillance+Capitalism.2019.pdf. Retrieved July 7, 2023, from https://we.riseup.net/assets/533560/Zuboff%2C+Shoshana.The+Age+of+Surveillance+Capitalism.2019.pdf
[10] (n.d.). Weapons of Math Destruction. Retrieved July 7, 2023, from https://edisciplinas.usp.br/mod/resource/view.php?id=2535645
[11] (2019, January 7). When data is capital: Datafication, accumulation, and extraction. Retrieved July 11, 2023, from https://journals.sage-pub.com/doi/full/10.1177/2053951718820549

CASE STUDY ONE:

For long, the cultures,myths and taboos surrounding women's reproductive health have had an effect on their quality of lives particularly in terms of accessing these essential services. Over the past few years though, we have seen a rise in digital healthtech products and solutions that are consumer centric and cover various female specific conditions popularly termed 'femtech'[12].

Some of these include menstrual tracking apps, pregnancy, contraceptive and sex apps, fertility health apps, maternal and mental health apps and so on. Many of these are also hosted on wearable smart devices enabling real time data collection and analytics.However, even where these apps are only single-device hosted, their functionality remains dependent on the collection of user's data to avail their products or services.
As such, these apps are meant to protect the right to privacy of the users who share their personal data.

However, research has revealed that most of the widely used femtech apps do not follow the data privacy mandate especially through unclear or deceitful consent regimes. For example, most of this sensitive personal data is shared with third parties for online targeted advertising.[13] This data capitalist model upon which datafication is predicated that repudiates customer's privacy for profit poses unwanted consequences for femtech users especially with exposure to profiling risks in downstream processing once users data becomes part of aggregate, anonymized data. Additionally, the narrow interpretation of the right to privacy as the right to anonymity ends up leaving data subjects unprotected against profiling harms.[14]

Consent

In today's digital infrastructure, consent is one of the central mechanisms around which data subjects' rights are operationalised,[15] particularly in the current data protection regimes. In theory, the notion of consent is rendered legitimate in instances where an agreement is reached between individuals who are both free and equal based on the fact that none of the parties has an upper hand over the other party.

However, drawing from feminist analyses of consent in situations of sexual violence, we are able to critique the underlying power relations to any consent agreement and determine whether the consent is meaningful or not.

Looking at many consent agreements between data subjects and public or private sector data holders including government agencies and private corporations, we realise that it is almost impossible to attain meaningful consent from the data subjects. This may be due to non-negotiable, boilerplate contracts which entrench unequal power relations between users and companies, coercion into consent, incidences of consent fatigue where individuals are incessantly asked for consent to the point of fatigue and not going over the contracts anymore, incomprehensible agreements due to language used as well as instances where choice is simply an illusion and one can't opt out of the agreement.

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[12] (2022, February 14). The dawn of the FemTech revolution - McKinsey. Retrieved July 11, 2023, from https://www.mckinsey.com/industries/healthcare/our-insights/the-dawn-of-the-femtech-revolution

[13] (2022, August 17). *privacy not included | Shop smart and safe | Mozilla Foundation. Retrieved July 11, 2023, from https://foundation.mozilla.org/en/privacynotincluded/articles/in-post-roe-v-wade-era-mozilla-labels-18-of-25-popular- period-and-pregnancy-tracking-tech-with-privacy-not-included-warning/

[14] (2021, December 5). Data Subjects in the Femtech Matrix: A Feminist - IT for Change. Retrieved February 28, 2023, from https://itforchange.net/sites/default/files/1620/FDJ-Issue-Paper-6-Data-Subjects-In-the-Femtech-Matrix-IT-for-Change.pdf

[15] (2020, November 25). Informed consent – Said who? A feminist perspective on principles .... Retrieved December 19, 2022, from https://internetdemocracy.in/reports/informed-consent-said-who-a-feminist-perspective-on-principles-of-consent-in-the-age-of-embodied-data

CASE STUDY TWO:

A growing number of countries are adopting digital ID systems citing their ease, efficiency , increased security and fraud prevention as well as lower costs compared to the analogue ID system. These digital ID cards are basically linked to biometrics such as fingerprints and iris scans to a unique identity number.

Using the example of Uganda's digital ID system, research conducted titled 'Chased away and left to die' cited how a large part of the adult population eligible to have the IDs locally termed 'Ndaga Muntu' have failed to get access to the IDs. This report also pointed out how the majority of these persons who have not been issued IDs are rural dwellers who had challenges in travelling long distances as well as bearing the registration cost to get the ID. In addition, the report found that women were less likely to have ID compared to men due to factors such as lack of awareness of the registration process as well as a lack of source documents to register.

Unfortunately, this report pointed out the ugly reality which comes with not having the ID which is now mandatory to access a number of core services such as healthcare, access to welfare payments, sim card registration, access to passport and other such services[16].

This case study paints a picture of absence of consent due to poor deployment of the ID registration forms in places not easily accessible to a big part of the population, lack of negotiation between government and the citizens such as in the delays when waiting for one's ID but also the hefty registration fee that many cannot afford to get the ID and lastly in the denial of government services if one doesn't have the ID.

CASE STUDY THREE:

Over the past years, gig work and platform services have become more widespread across different african countries including but not limited to Uber, Airbnb, Bolt, Jumia,safeboda as well as online content creation on various platforms including YouTube,Tiktok and Instagram.

Despite these forms of work becoming more pervasive, legal questions continue to linger for instance around the absence of employment protection and fair benefits[17] due to a vacuum in laws governing this kind of cross border economy.

Using the example of online content creators in Africa who use YouTube or Tiktok as a work medium, we find that consent becomes elusive in circumstances where for instance the content creators are met with a non negotiable one way contract already stipulating the amount of money they get to earn per views or likes on a particular video. Moreover, these platform's variation in pay rates where African content creators are offered much less money than in other regions[18] particularly in the global north also spells out great power imbalances between the platform and the African content creators. With such consent agreements, the creators face insubordination that ultimately translates into unfair working conditions for them.

In the absence of concrete policies around the platform economy, these creators and other platform workers seemingly have few options if they are to use these platforms.

[16] (2021, June 8). Chased Away and Left to Die. Retrieved February 28, 2023, from https://chrgj.org/wp-content/uploads/2021/06/CHRGJ-Report-Chased-Away-and-Left-to-Die.pdf

[17] (n.d.). White paper on feminist internet research. Retrieved February 28, 2023, from https://firn.genderit.org/sites/default/files/2022-10/firn-whitepaper-2022.pdf

[18] (n.d.). Digital Creative Industries in Uganda - Pollicy. Retrieved July 11, 2023, from https://pollicy.org/resource/digital-creatives/

Data protection and governance

Mapping of AI and data governance on the African continent indicates wide gaps that need to be filled. This pertains to both the current instruments in place but also to the substance of these instruments[19]. Very few countries in Africa have concrete national AI strategies stemming right down from the African Union where work towards AI legislation is still in its foundational stages.

Moreover, even the countries such as Egypt and Mauritius with national AI strategies seem to be essentially focused on viewing AI as a channel to productivity to enable economic development with very little attention being paid to its social impacts and need for ethical AI governance[20].

As of now, the greatest strides have been made by African countries in enacting personal data protection laws. Despite this being commendable progress towards governing a significant feature of AI technologies, Afro-feminist critique brings to question the capacity of this individualistic data protection approach especially because of a minimal critical mass in most African countries necessary to bring greater awareness about AI systems and their overall benefits and harms as well as ways these can be regulated to the rest of the citizens. Unfortunately, this gap even spills over to governments whereby capacities to understand and regulate AI systems is still amiss.

With the big tech platforms arguably owning most of the data after governments in Africa, we see these platforms thriving off seamless data hoarding and continuous data extraction aided by the existing regulatory vacuum around AI systems. This enables these platforms to continuously benefit from this data while paying little attention to some harms their platforms are posing to users such as corporate surveillance, datafication,profiling and loss of privacy.

The result of this is the opening of pathways to new forms of control over individual autonomy and also to the misuse of personal data by both the private and public sector[21]. As such, deploying these AI systems in the absence of robust and contextually appropriate regulatory frameworks or any kind of monitoring poses great harm to the African masses and especially to people already living on the margins of society.

Additionally, most government policies concentrate on urban development while rural areas are side-lined yet given the large population of people living in rural areas in Africa many of whom are women, issues pertaining to data and deployment of various AI systems are then likely to have a greater impact on them.

[19] (n.d.). AI GOVERNANCE IN AFRICA. Retrieved July 11, 2023, from https://ai.altadvisory.africa/wp-content/uploads/AI-Governance-in-Africa-2022.pdf
[20] (2023, January 1). AI Policy as a Response to AI Ethics? Addressing Ethical Issues in .... Retrieved February 28, 2023, from https://link.springer.com/chapter/10.1007/978-3-031-08215-3_7
[21] (2023, January 30). The Global Risks Report 2023 18th Edition - weforum.org. Retrieved February 28, 2023, from https://www3.weforum.org/docs/WEF_Global_Risks_Report_2023.pdf

CASE STUDY FOUR:

AI systems are many times purported as greatly efficient on their own which is usually predicated on the falsehood that these systems are becoming ever more intelligent[22] compared to human intelligence especially by the developers of these systems presumably in a bid to advertise them further.

This however has been debunked by an investigation which has indicated a shadow population of human labour[23] who work at the back end of these systems to rectify their shortcomings in usability such as reduction of toxic language which may be racist, sexist or any other discriminatory language. According to this research, the majority of the people doing this work are Africans labouring away at this largely meaningless and distressing work at extremely low wages. The case in point is the recent OpenAI and its outsourcing partner Sama in Kenya's story which uncovered that several young people were hired to label data meant to help detect toxic content on OpenAI's generative AI model ChatGPT. With a pay of about $1.32 per hour viewing graphic content like child sexual abuse, bestiality, murder, suicide, torture and harm, one wonders if these inhumane conditions should be legal on the continent given OpenAI utilised the absence of regulation around click work and AI systems as a whole to outsource this invisible labour on the continent.

ii Neocolonialism/ Imperialism

AI systems heralded by the predominant big tech corporations are entrenching the subjugation and domination of African data subjects through the extraction and hoarding of their data which is reminiscent of neocolonialism across much of the global south today. This imperialism is buttressed in the global neoliberal agenda seen through this monopolistic capitalism which has placed these corporations among the world's financial elite who have near unchallenged social, political and economic power[24].

These corporations' business models have for instance resulted in the corrosion of democratic rule[25] looking at examples of where algorithmic control was used by big tech to influence voter decisions, the misuse and exploitation of gigantic amounts of data that they own from users on the continent[26] as well as the amplification of hate speech, misinformation and disinformation particularly targeted at women[27].

This unbridled capitalism has engendered new structural drivers of inequities including new political systems and new norms[28]. Furthermore, we see the continuity of imperialist legacies in Africa through essentialist concepts such as globalisation, radical free markets, strong property rights and individualism which work to undermine African people's ability to collectively bargain for economically empowering AI systems.

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[22] (2022, October 13). The Exploited Labor Behind Artificial Intelligence - Noema Magazine. Retrieved February 28, 2023, from https://www.noemamag.com/the-exploited-labor-behind-artificial-intelligence

[23] (2023, January 18). OpenAI Used Kenyan Workers on Less Than $2 Per Hour - TIME. Retrieved February 28, 2023, from https://time.com/6247678/openai-chatgpt-kenya-workers/

[24] (2011, September 6). Neoliberalism in the Information Age, or Vice Versa? Global .... Retrieved December 18, 2022, from https://www.triple-c.at/index.php/tripleC/article/view/238

[25] (2022, February 21). Big Tech vs. Red Tech: The Diminishing of Democracy in the Digital .... Retrieved December 18, 2022, from https://www.cigionline.org/articles/big-tech-vs-red-tech-the-diminishing-of-democracy-in-the-digital-age/

[26] (2022, March 30). Algorithms, bots and elections in Africa: how social media influences .... Retrieved December 19, 2022, from https://theconversation.com/algorithms-bots-and-elections-in-africa-how-social-media-influences-political-choices-179121

[27] (n.d.). Report summary | Pollicy. Retrieved December 19, 2022, from https://pollicy.org/wp-content/uploads/2021/12/Amplified-Abuse_Report_on_online_violence_during_the_2021_uganda_general_elections_summary.pdf

[28] (n.d.). Decolonization and Afro-Feminism - Aliadas em movimento. Retrieved December 18, 2022, from https://aliadasemmovimento.org/site/wp-content/uploads/2021/02/Sylvia-Tamale-Decolonization-and-Afro-Feminism-1.pdf

Extractivism

Today, an intelligence infrastructure of extractivism exists primarily upheld by Big tech and their Big data ideology. Visions of interoperability of data processing systems and so called convergence of emerging technologies between the global north developers of AI systems with the users in the global south have in many ways aided this relentless extraction of user's data.

Big data arising from this extractivism basically powers the AI data-driven systems today. Over the past few years, this Big data has been used as a backbone for developing remedies to a number of social issues across the continent such as in health or anti-poverty programs. However, these systems have been seen to sometimes generate solutions which lack nuance and relevance to the realities of targeted demographics since the value chain from pre-development of these systems to their deployment rarely captures their actual needs and realities.

In addition to data extractivism, colonial cycles of extraction by Western entities persist to date in the mining of natural resources that power the various devices that host AI systems such as the mining of cobalt in the Democratic Republic of Congo which covers over three-quarters of the world's cobalt needs.

CASE STUDY FIVE:

The Katanga region in south-eastern Congo (DRC) is home to about 70% of the world's cobalt mines. With cobalt being used in every single lithium-ion rechargeable battery manufactured as used in smartphones, computers, tablets and electric cars, the conditions under which this cobalt is obtained from the bottom of the value chain in Congo is nothing short of grossly extractivist and inhumane.

This is because the cobalt is mined artisanally by children especially teenage boys as well as women many of whom have kids on their backs digging away without any protective measures at a dollar or two a day. These conditions which are marked by a lack of standards of dignity, decency or sustainability are subhuman and the hallmark of big tech imperialism driven by a baseless extractivism that only cares for maximising profits at the top of the value chain[29].

Data/digital colonialism

AI is as good as the datasets and algorithms that shape it. With inherent power tilted towards the global north who own and control these datasets that shape AI systems developed for Africa, this relation largely amounts to data colonialism[30]. While the potential of AI to create wealth is undisputed, the subsequent distribution of this wealth is cause for concern as the main beneficiaries of this are the big tech organisations that hold the data and computing resources[31].

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[29] (n.d.). Cobalt Red: How the Blood of the Congo Powers Our Lives. Retrieved February 28, 2023, from https://www.goodreads.com/book/-show/60784614-cobalt-red

[30] (n.d.). Data Colonialism: Rethinking Big Data's Relation to the .... Retrieved February 28, 2023, from https://journals.sagepub.com/doi/-full/10.1177/1527476418796632

[31] (2023, April 11). 2023 Landscape: Confronting Tech Power - AI Now Institute. Retrieved July 12, 2023, from https://ainowinstitute.org/wp-content/uploads/2023/04/AI-Now-2023-Landscape-Report-FINAL.pdf

This means that AI then perpetuates and exacerbates inequality on a global scale[32] particularly tilted towards the global south and Sub-Saharan Africa in particular where legislation of the platform economy barely exists. Africa is further put in a vulnerable position in playing catch up to the digital revolution as seen in the digital inequalities between it and the global north. Taking an example of foreign digital policy, we see that due to Africa's vulnerable economic position of being a receiver of aid from the global north, countries on the continent are usually subjugated into digital trade agreements that are largely unfavourable to them as conditionality for aid which is reminiscent of colonialism.

CASE STUDY SIX:

At the start of 2023, the International Monetary Fund (IMF) backed the adoption of a controversial global minimum tax rate for multinational companies where it proposed the scrapping of the digital services tax levied on tech giants such as Google, Facebook and Amazon[33].

In Kenya, the country's Revenue Authority (KRA) expressed the country's discomfort with the clauses of the proposal that would force it to drop the digital services tax of 1.5% of sales which only came into effect in January 2021 with hopes of generating up to 13.9 billion Kenyan shillings over the next three years. This tax included the American tech giants who the IMF is now proposing to be exempted from the tax by stipulating a standard global minimum tax rate dictated by them on the pretext of making the international tax system more robust to spillovers, better equipped to address digitalization and modestly raise global revenues. The proposal also mentions the need to shift taxing rights which have traditionally been assigned to jurisdictions where multinationals have a physical presence.

This IMF proposal which attempts to make the point that the digital economy cannot be meaningfully ring fenced is a great example of digital colonialism buttressed under today's neoliberal global leadership.

Techno chauvinism

Techno chauvinism is the idea that technology or technological strategies and solutions are always the best strategy and here basically denotes the blind belief in Big data and AI's capacity to solve all of humanity's problems.

AI technologies have proven and lay out great potential to increase efficiency in many parts of our lives. This may include communication, travel, finance, health care, agriculture, education and so on. Undoubtedly, AI is envisioned to bring about a multitude of benefits. However, despite its transformative power, several critical challenges are arising from it that require us to question whether all AI systems being developed or deployed on the continent have the promotion of welfare of all human beings behind their creation.

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[32] (2023, January 1). AI Policy as a Response to AI Ethics? Addressing Ethical Issues in .... Retrieved February 28, 2023, from https://link.springer.com/chapter/10.1007/978-3-031-08215-3_7

[33] (2023, February 8). Kenya's digital services tax on tech giants must go, IMF says. Retrieved February 28, 2023, from https://www.standardmedia.co.ke/business/business/article/2001466704/kenyas-digital-services-tax-on-tech-giants-must-go-imf-says

Meredith Broussard (2018) remarks that we have reached a point of enthusiasm to use technologies for everything that we have stopped demanding that the tech be good. This is particularly where engineering solutions are applied to any and all social problems.

A large proportion of research on AI is focused on capabilities of AI and less so on how these systems maximise societal benefit yet more evidence keeps coming up showing how AI is widening inequality and placing information and control in the hands of those who already have[34] power.

The technochauvinist attitude has basically led to an indifference in seeing technologies for both the potential benefits and risks they pose especially here on the African continent where technology of any kind is met from a "progress" or "development" angle even when it's deeply harmful to the citizens.

CASE STUDY SEVEN:

AI art tools Stable Diffusion and Mid Journey have been targeted with a copyright lawsuit[35] which has made the claim that these generative AI tools function in violation of the intellectual property rights of millions of artists' work from all over the globe by scraping their artworks from different parts of the web without their consent. This lawsuit stated that these companies train their AI tools by using datasets containing many artists' original artwork on the internet which are then used in generating synthetic AI art that these companies get to monetize.

According to the artist's pressing charges, this lawsuit is meant to make AI more ethical and fairer to all people. Putting this into the African perspective, several African digital creators indeed do have their original art on the sites mentioned in the lawsuit such as Shutterlock, getty images, Pinterest, Tumblr and Flickr which means they get to watch Mid Journey and Stability AI make money off their art with barely any power in their realm to oppose. This is also worsened by the weak IP law in most parts of the continent.

iv   A spatial understanding of privacy

The construction of the (digital) right to privacy as one that only comes to life when an individual is within the confines of their homes and that that ceases to exist when that person ventures into a public space is a harmful interpretation which opens women up to harassment. It is also akin to offline forms of harassment faced by women, such as catcalling, and shaming all of which are justified on the flawed understanding of the right to privacy.

Rather than view the right to privacy as resting within the person despite their actions and whatever space they exist in, it becomes clear as to why many women online might feel a loss of their privacy. This usually extends to the information women choose to meaningfully share online, be it text or images which usually gets reacted to in a way that may lead women to silence themselves online.

[34] (2019, December 4). The AI Now Institute 2019 report. Retrieved December 18, 2022, from https://ainowinstitute.org/AI_Now_2019_Report.pdf
[35] (2023, January 16). AI art tools Stable Diffusion and Midjourney targeted with copyright .... Retrieved February 28, 2023, from https://www.theverge.com/2023/1/16/23557098/generative-ai-art-copyright-legal-lawsuit-stable-diffusion-midjourney-deviantart

Since men dominate the public sphere, part of which now is also the digital sphere, we see how women are struggling to maintain themselves online without facing any harms such as online gender based violation, disinformation and so on. In many ways, the silencing of women arising from this can be attributed to sexist and racist attitudes towards women existing in public spaces which carry on from the physical world to the virtual world. Unfortunately, this is the case especially with women public figures especially journalists and politicians[36].

CASE STUDY EIGHT:

With increased digitization in Africa has come the rise of the use of online spaces as arenas for women journalists to easily share any messages using any format with a wide audience online. As such, these women journalists have been able to not only communicate their issues but also to network and seek and provide protection while in these digital spaces to each other.

However, while digital spaces have opened up this realm of activity for women journalists online, these spaces are also becoming arenas for women to be attacked through cyberstalking, abusive comments, namecalling, trolling, body shaming, online sexual violence, intimidation, threats of violence as well as doxing among other forms of online harrasment mostly targeted at women[37]. This harassment which is a direct violation of these women's right to privacy online has consequently led to the deterioration of these journalists' mental health and subsequent self censoring on these platforms.

[36] (n.d.). Report summary | Pollicy. Retrieved December 19, 2022, from https://pollicy.org/wp-content/uploads/2021/12/Amplified-Abuse_Report_on_online_violence_during_the_2021_uganda_general_elections_summary.pdf
[37] (n.d.). A Dark Place for Women Journalists & Women Human Rights .... Retrieved March 11, 2023, from https://pollicy.org/wp-content/uploads/2022/11/FemTech-Report-Revised-Colors-tiny.pdf

The Solution

v **Intersectionality**

African women exist at a point of multiple structural inequalities or erasures. Therefore, in the development, adoption and deployment of AI on the continent, an approach that centers the intersecting needs and identities of African women should be the norm as opposed to the current mode that targets a universal user and then later having add-ons to address the emerging needs of marginalised populations[38].

Defining harm in an intersectional way
Intersectionality in practice can be challenging given the breadth of the factors to be considered when looking at any particular demographic which might range between race, sex, gender, ethnicity, socioeconomic conditions, literacy levels,disability and how all these interact to create certain situations of oppression. The other reason it becomes challenging is the dynamic nature of some of these factors which necessitates shifting focus from certain issues pertaining to some individuals from time to time.

Using the afro-feminist lens which opens pathways to creative theoretical frameworks or systems of inquiry, this particular framework stipulates that technologists charged with intersectionally defining any sort of harm arising from AI systems work collectively with the users to investigate the relevant thematic areas resulting into dialogue and a subsequent joint meaning - making process. Hereby, the ideas, concepts, hopes, doubts and values that come up in the generative themes are reflective of a participatory and fully inclusive investigation reflecting the lived experiences and realities of all peoples.

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[38] "Afrofeminist Data Futures Report ENGLISH - Pollicy." 3 Mar. 2021, https://pollicy.org/wp-content/uploads/2021/09/Afrofeminist-Data-Futures-Report-ENGLISH.pdf. Accessed 19 Dec. 2022.

ILLUSTRATION

Taking an example of the largely absent legislation around the content moderation of gig platforms in Africa, below are some steps that may be taken to define the harms arising from this towards more fair and ethical gig platforms;

- The meaning making class or policymakers should reach out using various avenues to directly engage with the affected public about the issue who in this case are platform economy workers such as content creators.

- This engagement should be dialogical meaning it involves learning and knowing for both the public and the meaning making class.

- The result of this dialogue should be generative themes and classifications denoting the various intersecting identities under the affected population.

- The categories and generative themes should then guide placing of harm accordingly.

- Depending on the issue, any given theme pertaining to harm may be centred or all themes can be of equal importance.

- This process ultimately requires enough time as it is iterative and co-creative.

Feminist principles

Borrowing from the Feminist Principles of the Internet among which are access to the internet, access to information, movement building and open source[39], we suggest that governance of AI systems be guided by these with a specific focus on encouraging collective feminist AI and data policymaking by feminist technologists.

The holistic governance of AI systems across the continent would greatly benefit from centering feminist ideals that centre the eradication of sexism as well as seek to create full social, economic and political equality for all African women in their diversity.

Finally, in agreement with bell hooks (1984), we support the notion that principles that result in reforms alone are great but they merely expand existing social structures and do not necessarily challenge the status quo. In this regard, short term fixes to risks and harms arising from AI technologies ought to be secondary and not primary in addressing the overarching structural systems within which these technologies are developed or deployed in relation to their impact on the livelihoods of African women.

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[39] (2016, August 19). Feminist Principles of the Internet - Version 2.0. Retrieved December 19, 2022, from https://www.apc.org/en/pubs/feminist-principles-internet-version-20

In reference to the issue of the limited existence of representative datasets pertaining to African or black women as a whole which leads to their erasure in digital spaces, the Afro-census conducted in Germany[40] is a great illustration of applying feminist principles to AI and data ecosystems.

The Afro census was seen to construct datasets of a demographic group in Germany which has for long been affected by intersectional discrimination and with the data is now finally able to be a visible group that is better represented in Germany's social, political and economic fabric.

Likened to indigenous groups' data sovereignty strides, the afro census met the data needs necessary to bring to light the issues long denied as myth such as German's structural racism towards black women.

vi Marginality

With the current digital infrastructure which places power and control in the hands of the data holders over the data subjects, the concept of marginality seeks to speak to the realities of the people living on the margins or fringes of the global digital ecosystem. In Africa, given the position of African women who are at the bottom of this hierarchy, AI and data governance ought to find ways to bring them from the margins to the centre of the digital ecosystem such that they benefit from their personal data.

This informational self determination is inseparable from democracy building which includes economic democracy based on their data rights as data owners.

Power and hierarchy

To counter the marginalisation of individuals and groups such as African women, the lens of power aids in understanding who holds power over who in the current AI ecosystem in Africa. With the Big tech corporations being the one of the more predominant owners of data and digital infrastructures on the continent, we see that they indeed hold power over the african data subjects especially in as far as they utilise this data for their profit making at the expense of the owners who suffer harms such as automated decision making, profiling and surveillance. This is also true for African AI startups as well as governments.

For instance, machine learning models used as scoring systems that score the probability of things such as eligibility for a loan under fintechs impose immense power over the users of these systems since they have no way of appealing the system results let alone find out how the different scores were reached. Having clear policies and regulations around automated decision making would help bridge the power held over data subjects through principles of fairness and meaningful consent regimes.

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[40] (2023, February 10). Data and Afrofuturism: an emancipated subject? by Aisha P. L. Kadiri. Retrieved March 11, 2023, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4352636

Language

The ambiguity of language used in many AI models and principles needs to evolve to be a more culturally clear and diverse language to all peoples.

The fast growing AI field of Natural Language Processing starkly remains a reserve of only about 1% of the world's languages which has created a hegemony of languages used in digital spaces overall. Consequently, a near erasure of majority languages, many of which are spoken by populations from the global south largely termed as 'low resource languages'[41] persists. This renders digital technologies inaccessible to sizable portions of these populations who lack an understanding of the languages used thereon.

African women make up a sizable portion of the world's illiterate with the literacy rate of adult women in sub-Saharan Africa standing at 58.8% as of 2019[42]. Besides the fact that digital technologies are more easily accessible in terms of usage to literate populations in Africa who speak the dominant western languages used on these platforms, we also note that much of the language used in several automated system contracts is male gendered and thus is likely not to accommodate the literary understanding of women's lives.

Empowered inclusion of all peoples in AI governance

To realise transformative changes in AI systems today, bringing all people in to be a part of the AI discussion is key. Here, building human and institutional capacities in AI related domains is central to AI literacy.

Taking example from more established sectors such as the health sector, governments have the onus on them to find the right and easy-to-digest language for their people to understand AI technologies being developed and deployed in their countries especially for public use. The assumption that most people are incapable of understanding the workings of these systems is wrong at best and elitist at worst since it is their right to know about the possible impact and risks that come with these technologies that they are engaging with.

It has also been remarked that the lack of AI legislation on the continent is mainly due to policymakers' scanty technology and AI expertise and other emerging technologies. Therefore, there is also a great need to boost the capacity of policymakers across the continent in their understanding of how AI technologies work as well as how to best harness their potential to the benefit of all the masses. Specifically, ensuring a full on diverse approach to this where a sufficient number of men and women policymakers are empowered in their capacity to administrate over these technologies would foster greater strides towards gender justice in relation to AI systems.

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[41] (n.d.). Non-Dominant Languages in the Digital Landscape - Pollicy. Retrieved March 11, 2023, from https://pollicy.org/resource/language-colo-niality-non-dominant-languages-in-the-digital-landscape/
[42] (2021, May 28). The Steady Rise of Female Literacy in Sub-Saharan Africa - BORGEN. Retrieved December 18, 2022, from https://www.bor-genmagazine.com/female-literacy-in-sub-saharan-africa/

Lastly, updating educational curriculums across the continent to integrate the teaching of AI using a multidisciplinary approach from a lower school level would empower mass appreciation and understanding of the working of AI systems especially as these technologies increasingly permeate all aspects of our lives.

Inclusivity and diversity in AI design

Algorithmic marginalisation of certain viewpoints can be remedied by making space for more diverse visions of society. With AI being a predominantly homogeneous field lacking in diversity particularly across the spectrums of race and gender globally as reflected at least in the Big tech spaces where black women remain a minority, we see that this lack of diversity contributes to the designing of these systems along the lines of enmeshing blind spots and false assumptions about minority populations.

Inclusivity and diversity in design can be attained in a number of ways such as increasing representation of minority groups as developers, designers and decision makers, ensuring representation in datasets, preventing disparate impact as well as taking on bottom up design driven by objectives of inclusivity.

ILLUSTRATION

The design of digital ID systems across much of the global south including Africa is typically top down. While the premise of ID is to be able to solve the trust problem relating to how individuals demonstrate who they claim to be, this top down approach needs to be reconceptualised due to its severe shortfalls in inclusivity and respect of the right to privacy.

This may firstly be done by reassessing the levels of assurance required for individuals to identify themselves which should be dependent on the level of risk attached to any given service they are trying to access - this may either be low risk or high risk meaning individuals should be able to identify themselves under umbrella categories such as age range in low risk circumstances and more specifically where stakes are high. This allows for individuals to exercise their right to privacy[43]. The other guiding notion should be centering the inclusivity of individuals . Looking at the proliferation of digital IDs across many African countries which have ended up excluding many citizens from basic, essential services, the ID issuers who are governments ought to start from a place of including all persons in accessing these IDs as a way of enabling access to all services by the entire population.

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[43] (n.d.). Establishing Trust - Digital Identities: Design and Uses. Retrieved March 11, 2023, from https://digitalid.design/decisions-guide/establishing-trust.html

vii Risk and impact assessment

In response to emerging societal risk of AI, particularly pertaining to the realities of African women, we recommend that feminist principles be included as a metric in assessing risk and impact of AI systems across the continent.

The public has the right to know the significance of the technological impact on them as a result of the deployment of AI systems. It is thereby the responsibility of governments to be as transparent in the process of developing and deploying these systems especially where they pose a direct impact on the general public. This ought to open up room for public discourse which should influence the government's adoption of a particular system or not.

On the part of government, implementation of algorithmic impact assessments is significant as a mechanism to reduce legal risks stemming from liability or negligence[44] arising from AI systems.

Comparatively analysing the progress of this tenet across the globe, we still notice gaps in the ability and competence of most governments including those on the African continent in being able to carry out algorithmic impact assessments. The key challenge here is how difficult it is to obtain institutional support to support the implementation of these assessments[45]. This challenge necessitates the need to grow the regulatory arm of systems through for instance setting up of multistakeholder commissions to guide the process of algorithmic impact assessment as well as the need to set up an AI standardisation body primarily concerned with these assessments.

Additionally, there ought to be a shift in mindsets by governments when developing and deploying AI systems in terms of careful planning along intersecting dimensions before rolling them out to the public if these systems are to be truly of service to all.

Lifecycle approach
Risk has to be examined prior to, after deployment as well as periodically to ensure its maximum effectiveness.

General consensus seems to exist in agreement with the argument that algorithmic impact assessments ought to be carried out throughout the lifecycle of these systems' development and deployment. The purpose of these assessments would be to share findings with all stakeholders, put into practicability the exercise of developing intended outcomes of tech policy as well as the chance to engage different stakeholders likely to be affected.

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[44] "Human rights impact assessments for AI - Access Now." https://www.accessnow.org/cms/assets/uploads/2022/11/Access-Now-Version-Human-Rights-Implications-of-Algorithmic-Impact-Assessments_-Priority-Recommendations-to-Guide-Effective-Development-and-Use.pdf. Accessed 19 Dec. 2022.
[45] "Algorithmic impact assessment: a case study in healthcare." 8 Feb. 2022, https://www.adalovelaceinstitute.org/report/algorithmic-impact-assessment-case-study-healthcare/. Accessed 19 Dec. 2022.

Furthermore, fluidity in the development of algorithmic impact assessments is encouraged as these standards shouldnt be set in stone but rather be adjustable to different emergent technologies[46]. This is key to note as the field of AI is continuously and exponentially growing by the day.

Benefit/burden analysis

This speaks to the idea that benefits should be weighed against the harm an AI model might pose as a guide in carrying out risk assessment.

AI systems vary from one another which makes the option of benefit/burden based algorithmic impact assessment feasible. Hinging on the democratic approach of transparency of policymakers to inform the public of AI systems likely to be deployed or developed, the public's feedback coupled with analyses from other expert groups from civil society, academia, media and so on can guide the adoption or rejection of AI systems deemed beneficial or harmful to the masses respectively.

Domain expertise

The cross cutting nature of AI requires an integration of experts from different fields in attempting to come up with codes of AI governance. With AI's multidisciplinary nature, different expertise is required if we are to govern these systems comprehensively. For instance the developers and technical people bring in a different contribution to this end compared to the humanities experts who bring in ideas on how to manage these systems in a way that serves society's needs from an ethical and responsible AI development and deployment angle.

A number of stakeholders are suggested here including but not limited to policy makers, tech developers, civil society, academia, media as well as the users(the public) who collectively need to decide on what kind of AI driven society we want.

viii Trust

Adoption of technology only happens in contexts where there is trust[47] and this is important to know owing to the assertion that fear of the unknown poses a great challenge to the adoption of AI in africa.

The idea then is to move away from absolutist, technosolutionist narratives to more explainable AI systems to the masses, which can help build trust in the AI systems.

[46] "Algorithmic impact assessment: a case study in healthcare." 8 Feb. 2022, https://www.adalovelaceinstitute.org/report/algorithmic-impact-assessment-case-study-healthcare/. Accessed 19 Dec. 2022.
[47] (2023, January 1). Epistemic Just and Dynamic AI Ethics in Africa | SpringerLink. Retrieved March 11, 2023, from https://link.springer.com/chapter/10.1007/978-3-031-08215-3_2

With AI systems making it possible to outsource our thinking, decision making and memories from our ever cheaper smart devices and intelligent clouds[48], it is no wonder that what we see today is probably flawed assumptions about the scale, speed and potential impacts of AI systems particularly when it comes to risk pertaining to the development and deployment of these systems. This directly speaks to the need to create an atmosphere of trust as these systems become more all-pervasive in our lives.

Responsibility / accountability
Responsibility denotes accountability and having control and authority over something and it is an important aspect that needs to be taken into account in the design, development, implementation and mainstream buy-in of any technology[49] including AI technologies. The question would then be what responsible AI means for the African context with specificity to the needs of African women.

Accountability is the state of being answerable or responsible towards a system with its underlying behaviour and its likely impacts. Here, the assertion that algorithms cannot be held accountable since they aren't legal entities comes up which leads to the need to look at the organisations developing, using or deploying these systems in being held liable for their systems through governance structures. Ideally, this should follow certain guiding actions which are in line with social values and norms of a society.

However, machine learning and neural networks' explainability is still elusive especially because of the impenetrability of these systems even for their developers. Regardless, the premise of reliability[50] has been advanced as a remedy to this issue where these systems can be depended on to produce minimal errors while being deployed especially in sensitive use cases such as in healthcare.

Human oversight
A need for a level of human involvement, especially in critical areas like health is a necessity that directly correlates with trust in AI systems. On top of AI systems' transparency as a mechanism for increasing trust in AI systems, it is also important where decisions are being made by AI for provision of sufficient human oversight to be a possibility. This is especially so for high level risk applications like health but also to any other automated systems that could impact people's lives such as crime prediction software models.

Transparency
Efforts ought to be made to fully reveal what is at stake when putting people in positions where they get to engage automated systems. Beyond the need to inform users that they are engaging with AI machines, clarity of how the different AI systems can potentially affect them or their data needs to be shared as they get to engage with these technologies.

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[48] ((n.d.). Technology vs Humanity: the coming clash of man and machine .... Retrieved December 18, 2022, from https://www.techvshuman.com/
[49] (n.d.). Responsible AI in Africa - OAPEN. Retrieved March 11, 2023, from https://library.oapen.org/handle/20.500.12657/60787
[50] (2022, June 18). Melanie Mitchell: Artificial intelligence—a guide for thinking humans .... Retrieved December 19, 2022, from https://www.researchgate.net/publication/361358473_Melanie_Mitchell_Artificial_intelligence-a_guide_for_thinking_humans_Picador_New_York_2019_336_pp_ISBN_978-1-250-75804-0

Disclosure of all likely uses of citizen's data which may include selling it to other parties or using it to surveil should be made clear so people can meaningfully consent to sharing their data or not. In addition, even systems which are mandatory such as the state biometric identification systems across much of the continent should also be transparent about the systems' workings to their citizens as they hold critical data of theirs.

Furthermore, since the idea of complete transparency of the operations of AI systems is elusive as a goal, efforts should be made to striving for a meaningful level of transparency[51].

ix Ethics

None of global AI ethics guidelines was developed in or for african contexts which points to the need to involve African perspectives in the global AI ethics[52] discourse and move away from the present situationality of Africa as an ethics dumping ground. Since Africa does not lack ethical principles worthy of being considered in global AI ethics debate, this continued erasure from this debate amounts to epistemic injustice which is a concept that defines unfairly discriminating against one's capacity as a knower[53].

AI ethics is very imperative as a system that has its ear to the real world perhaps more immediately than international law when it comes to regulating the benefits and impacts of AI systems everywhere.

Hence, this calls for redirection towards AI ethics awareness, sensitivity and literacy across the continent. In order to address this need, it's necessary to link AI ethics reflection to the lived experiences of Africa's inhabitants to meet them in their own context .

Culture should perhaps be the calculus of AI ethics in the sense that it is what is used to interpret and translate AI ethics into familiar terms for each community. For instance, Africa's ethics is deeply seated in societal beliefs about what is morally wrong and right and in the behaviour society deems appropriate to bring about social justice and harmony[54].

Values
AI is not an object but rather an assemblage of values, people, places and processes. This means therefore that the values of data and AI have to be made clear as well as open. Corman and Rosman (2021) posit that AI and its ethical considerations should be compatible with the societal values within which they operate.

[51] "Navigating Transparency in EU's AI Act - Mozilla Foundation." 28 Oct. 2022, https://foundation.mozilla.org/en/blog/navigating-transparency-in-eus-ai-act/. Accessed 19 Dec. 2022.
[52] (2023, January 1). Epistemic Just and Dynamic AI Ethics in Africa | SpringerLink. Retrieved March 11, 2023, from https://link.springer.com/chapter/10.1007/978-3-031-08215-3_2
[53] (n.d.). What Makes Epistemic Injustice an "Injustice"? - Wiley Online Library. Retrieved March 11, 2023, from https://onlinelibrary.wiley.com/doi/abs/10.1111/josp.12348
[54] (n.d.). AFRICAN ETHICS AND PARTIALITY. Retrieved March 11, 2023, from http://www.scielo.org.za/pdf/phronimon/v17n2/03.pdf

African ethical values include peace, dignity, compassion, solidarity, reciprocity, cooperation, interdependence and social well being which are principles of communitarian morality. This morality distinctly imposes responsibilities on the individual with respect to the community and its members which is what is broadly termed 'Ubuntu' - 'I am because you are'.

Using the example of data governance, this ethics would predicate that with data be communally governed meaning the people get to retain ultimate ownership of it, know how to use it as well as its reproducibility and sustainability as opposed to individualist western ethics which chiefly centre rights as opposed duty and responsibility.

Ethics not as an add on
Values embedding the common good vision of AI should be rooted in from the start and not as a 'nice to have' afterthought. Thus, policy makers ought to have an ethics framework embedded in the governance of AI systems throughout their lifecycle i.e. from development to deployment and along all these processes too.

X Data justice

There is a need for a new global digital economic paradigm centred on collective human flourishing as opposed to the current one where a minority few are greatly benefiting from today's digital infrastructure at the expense of the majority data owners.

This would directly address the irony of data starting off as social good to de facto ownership and control of a few i.e. Big tech and governments .Given the fact that data is a social resource, the monopolisation of its intelligence by the dominant platforms reveals a lawlessness in the digital economy since it not only diverts from earlier democratic internet ideals but also since it forestalls the economic prospects of smaller players in the digital economy.

With value creation in data today being characterised by data's commodification, the aim to attain digital justice should be towards governing data for distributive integrity since data is rooted in social relations.

Collectivist data governance approaches in line with african communitarian ethics might offer solutions towards this distributive integrity of the data ecosystem. Here, approaches such as data stewardship formats like data trusts and data collaborative tools or community data approaches can be considered depending on the context of the data in question.

ILLUSTRATION

A great illustration is the idea of data semi social commons which advances the idea that every point in the data value chain is organised with the objective of socialising data value and dismantling rentier capitalism[55] such as the sui generic social commons approach for data governance. This idea differs from complete communitarian approaches which carry the risk of wasteful use of data owned by a given community or society.

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[55] (n.d.). To What End and for Whom? Conceptual Building Blocks of a Semi .... Retrieved March 11, 2023, from https://itforchange.net/governing-resource-of-data-to-what-end-and-for-whom-conceptual-building-blocks-of-a-semi-commons