Technology Regulation

Towards a Human-Centred Approach to Data Extraction

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Datafication; Relational Moral Theory; Data Colonialism; Surveillance Capitalism; Data Justice.

Ethical principles, such as privacy, autonomy, and human rights, have been published to govern ethical data extraction and mining. These principles aim to protect individuals from unlawful data extraction for research, development, and other purposes. While these principles are necessary to protect individuals against unlawful data extraction and mining, I argue that they do not, in practice, provide solid foundations for a human-centred approach to data extraction, given the exponential growth of surveillance capitalism and data colonialism. I contend that it is best to reorient data-driven corporations to approach data extraction from a human-centred perspective, guided by collectivist principles, such as care, human dignity, and beneficence, which I develop from Ubuntu-centred African relational moral theory. I show how these principles can contest current principles, such as respect for autonomy, privacy, and human rights, to guide a human-centred approach to data extraction.

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1. Introduction

Datafication has become an everyday concept that has gained significant traction in our current data-driven epoch. The expansion of data mining practices by capitalist-driven corporations has led to some form of data colonialism and the epistemic exclusion of some epistemic communities in the Global South, especially sub-Saharan Africa. On the one hand, data colonialism is understood here as the constant tracking of human behaviours and lived experiences in order to convert these experiences and behaviours to data that can be exploited for profit. Epistemic exclusion, on the other hand, involves the denial of the epistemic agencies of some epistemic communities in order to reject their testimonies and knowledge frameworks.

Capitalist infrastructures that advance data colonialism and capitalism,³ on the one hand, convert our social experiences into data.⁴⁵

- 1 Paola Ricaurte. "Data Epistemologies, the Coloniality of Power, and Resistance." *Television & New Media* 20(4) (2019): 350-365.
- Nick Couldry and Ulises Mejias. "Data Colonialism: Rethinking Big Data's Relation to the Contemporary Subject." *Television & New Media* 20(4) (2019):336–49.
- 3 Jose van Dijck. "Datafication, Dataism and Dataveillance: Big Data Between Scientific Paradigm and Ideology." *Surveillance & Society* 12(2) (2014):197–208.
- 4 Deborah Lupton, The Quantified Self (Polity Press 2016).
- 5 Edmund Ugar. "Remember Me: Memory and Forgetting in the Digital Age-

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In this sense, our lived experiences are commodified for profit by capitalist-driven individuals. On the other hand, because these infrastructures are capitalist and colonialist oriented, their data extraction method results in colonialism, which dispossesses, captures, and reduces the human person to mere commodities.⁶

Theorists in popular literature have sought to address the challenges of data colonialism from different perspectives. For example, using a new epistemological framework, Ricaurte calls for the epistemic resistance of data subjects to data colonialism in Mexico.⁷ Here, Ricaurte contends that data subjects in previously colonized places must resist the instruments of data extraction used by the big powers associated with Silicon Valley (my emphasis). These instruments include the technologies used by data-driven corporations for administrative purposes and the epistemic justification for the deployment of these technologies in our societies. For Ricaurte, previously colonized people must critically engage with the epistemic rationale of the technologies used by these data-driven corporations, especially if these rationales are hegemonic to the epistemologies of previously colonized. Greenwood takes a different turn from other theorists by interrogating the complicity of humanitarian organizations in data

- By David Sisto." Journal of Ethics and Emerging Technology 32(1) (2022):1-6.
- Jim Thatcher, David O'Sullivan, and Dillon Mahmoudi. "Data Colonialism through Accumulation by Dispossession: New Metaphors for Daily Data." Environment and Planning D: Society and Space 34(6) (2016):1–17.
- Ricaurte (n 3).

extraction.⁸ Greenwood alludes that these organizations must be constantly interrogated, and their activities checkmated. Finally, Milan and Trerè use a Global South perspective on colonialism as a useful lens to understand datafication and its pressures on people and communities of the Global South.⁹ They call for the valorization of alternative data epistemologies to understand the coloniality at play with datafication. Their view is similar to the view espoused by Ricaurte.

While these contributions are commendable, given their decolonial approach to data extraction, there is an underlying limitation to the somewhat collective approach taken by the above scholars. The argument of resistance to surveillance capitalists and colonialists over data exploitation by data subjects is necessary but insufficient to promote and protect equitable data extraction and mining. This is because their approach focuses on what the data subject should do to protect themselves from exploitation. However, I argue that data subjects do not always control how their data are extracted. Thus, it is my contention that in as much as data subjects ought to protect their data, data driven-corporations have a duty to extract the data of people using a human-centred approach. By human-centred approach, I mean a data extraction model that respects the data subjects' inalienable dignity, an approach that does not reduce the data subjects to mere commodities or calculable realities. To achieve my approach, it is a prerequisite that data-driven corporations are reoriented on how to extract human data by using human-centred principles as guides, such as the sub-Saharan-inspired communitarian notion of care, human dignity, and beneficence.

The human-centred principles stated above differ from the several ethical principles that have been published to guide human data extraction. Existing ethical principles, which I limit to privacy, autonomy, and human rights, have been designed to protect individuals from data extraction abuses. For instance, principles like human rights and privacy mandate informed consent; that is, it is a precondition that individuals provide consent for the extraction of their data. However, as I show in the fourth section of this paper, these principles do not promote sufficient human-centred resources for data extraction. The lacunas of these principles are that they still provide room for the commodification of individuals through their data. Furthermore, the principles focus more on data subjects rather than the data extractors. However, data subjects do not mostly control how their data are extracted and used, even with notions that are put in place, such as informed consent. As a result, I argue for my preferred sub-Saharan-inspired principles of care, human dignity, and beneficence as necessary and an appropriate way to promote a human-centred approach to data extraction.

I structure the paper as follows: First, I briefly provide a philosophical sketch of datafication. I point out what datafication means, how data are extracted, and their usage. In the second section, I discuss the problem that arises from data extraction: A) I discuss the problem of surveillance capitalism; b) I expose the issues of data colonialism. The third section briefly engages with the decolonial arguments of resistance to data extraction that have been developed; I show the

- 8 Faine Greenwood. Data Colonialism, Surveillance Capitalism, and Drones. In Doug Specht (ed.), Mapping Crisis: Participation, Datafication, and Humanitarianism in the Age of Digital Mapping (London University Press 2020: 89-118).
- 9 Stefania Milan, and Treré, Emiliano. "Big Data from the South(s): Beyond Data Universalism." *Television & New Media* 20(4) (2019):319–35.

limitations of these approaches and why the need for a new approach centred on my preferred principles of care, respect for human dignity, and beneficence is paramount. Finally, I develop my human-centred guiding principles for data extraction by using the African human-centred principle of care, human dignity, and beneficence. Furthermore, I show the practical application of these principles by using corporations like humanitarian organizations to clarify my point.

2. A Brief Philosophical Sketch of Datafication

Datafication, in simple terms, means converting aspects of our lives into data using technological advancements. One of the ways in which data analytics often generate and extract data is by making us legible. By legibility, Taylor and Broeders observe that data analytics prey on those in remote areas who cannot consent to their data being collected even if, given a chance, they would want to give their consent. They distinguish legibility and visibility.

Contrary to legibility, visibility is the notion that data collection is only made possible when data subjects are made visible.12 Government and private corporations create an enabling environment in which people are made visible by ensuring that they are connected to the internet to generate large data points. Taylor and Broeders point out that to make visibility possible, governments and corporations ensure that people are influenced and nudged to accept that connectivity interventions are of utmost priority and should be carried out by corporations. The people may regard such moves by the government and corporations as actions stemming from beneficence. However, in most cases, governments and corporations gather and analyse data for their economic benefit.13 This is because, while legibility is an established aim of datafication to somewhat allow for the governability of people by their government, visibility disperses citizens and creates an enabling environment for new data actors to have control over citizens.

The current introduction of highly sophisticated technologies like drones, especially in developing countries, has made the struggle between invisibility and visibility challenging. People from rural areas are made more visible through drones and involuntary connections on social media and satellite maps, like in the case of Facebook. Philosophically, the use of sophisticated technology to make people visible can be correlated with the notion of cartography and colonialism of the Polish thinker Zbigniew Bialas. Simply put, cartography and colonialism are "logoization of space," which, as argued by Bialas, is an essentialist and philosophically duplicitous thing to do, as it contradicts variables of reality. Bialas' narrative of cartography exposes a scenario that is somewhat similar to the commodification of spaces by data-driven corporations for colonial and capitalist purposes. The commodification of space creates an enabling environment for data-driven capitalist firms to exploit human beings through data mining.

Data mining, especially when done by capitalist and colonialist corporations like Facebook, Amazon, Microsoft and others, are extrac-

- Linnet Taylor, and Dennis Broeders. "In the Name of Development: Power, Profit and the Datafication of the Global South." *Geoforum* 64 (2015):229–37.
- 12 Taylor and Broeder (n 12).
- 13 Taylor and Broeder (n 12) 230.
- Zbigniew Bialas. "Ambition and Distortion: An Ontological Dimension in Colonial Cartography. In Borderland: Negotiating Boundaries in Post-Colonial Writing." Cross Cultures 40(4)(1999):17-28. https://doi. org/10.1163/9789004489202_005.

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tive, exploitative, creates cultural exclusion, and infringes on human dignity. With the extractive and exploitative model of data mining, there is an underlying assumption that everything is a data source and should be extracted and exploited. This implies that human life is nothing other than data points. This pervasive data regime shapes human forms of knowing, sensing, thinking, and being. ¹⁵ With this regime of data mining, life becomes commodified, our interactions in society are data-centred, and our lives are seen from the lens of data production. ¹⁶ With the new form of relations called data relations, a form of relations which has made human lives a data-extractive commodity, "social life all over the globe becomes an 'open' resource for extraction that is somehow 'just there' for capital." ¹⁷

Conceptualising data as a commodity that is just there has allowed for the appropriation of data to corporations for extraction as resources. However, the nature of appropriation is complex when it comes to data. This is because data are not just some raw materials; they involves lives that ought to be configured to generate specific data of interest. This configuration has to allow for the annexation of one individual's data-producing actions to other actions and moments of the individual's life to generate meaningful data points. Individual personal data, which represents the individual, are now seen in a less dignified way, that is, as commodities with economic gains. In this sense, human life, which has a subjective experience or character of consciousness, is then reduced to an object (data), thereby becoming a commodity for capital. It is this form of thinking that has led to the colonial and capitalist thinking behind the current mode of data extraction. How so?

First, it is important to understand that the present notion of data mining can be understood within a contextual lens of colonial history. The emergence of technology platforms disguised as business inventions rather than economic and market control mechanisms can be juxtaposed with the emergence of classical colonial structures in colonized places.²¹ These technology platforms work instrumentally to generate current tracked, captured, and sorted social existence as capital value or data. Second, data-driven logistics have been proliferating and exponentially growing in all aspects of human endeavours for data production and profit-making.²² However, the places affected dismally by this data-driven logic are non-Western contexts, just like non-Western contexts were affected by colo-

- 15 There is some form of metaphysical reductionism that is happening here, for which I do not provide a detailed overview, because it will change the focus of my argument. However, in a brief sense, this metaphysical reductionism tends to reduce human persons to objects by removing their subjectivity. The implication of such reductionism is that humans are then treated as unintentional beings that can be used instrumentally for some ends. We find this form of reductionism in the way big data enterprises tend to reduce humans to mere data to advance their data market structure.
- 16 Ricaurte (n 3) 352.
- 17 Couldry and Mejias (n 4) 337.
- 18 Daniel Greene, and Daniel Joseph. "The Digital Spatial Fix." *Triple C* 13(2) (2015):223–47.
- 19 Adam Arvidsson. 2016. "Facebook and Finance: On the Social Logic of the Derivative." Theory Culture & Society 33(6) (2016):3–23.
- A similar view to this has been raised by African thinkers, such as Achille Mbembe (2013). In Mbembe's narrative, black bodies are commodified for profit by capitalist infrastructures in different aspects, which may include films and arts, among others. (Achile Mbembe, *Critique of Black Reason*. Duke University Press 2013). However, my focus in this paper is not on particular bodies of particular races but on the human person in general.
- 21 Milan and Trerè (n 11).
- 22 Couldry and Mejias (n 4) 341.

nialism. I expound on these points in the next section. Drawing from existing literature on data practices in the Global South and foregrounding the complexities of data extraction, processing, and storage in colonial nations, I make a comparative analysis between classical colonialism and data colonialism. This is because there are similarities between classical colonialism and current data colonialism. The appropriation of data in contemporary societies is seemingly similar to the appropriation of natural resources for exploitation and profit-making during classical colonization.

3. Analysing Data Colonialism and Surveillance Capitalism through the Lens of Colonial Discourses

As previously pointed out, Couldry and Mejias contend that historic colonialism foregrounds the rationale of current data colonialism (my emphasis). For the thinkers, the way historic colonialism appropriated territories and embedded resources for profit-making are echoed in the way data colonialism is appropriating human beings and leaving them open for exploitation by reducing their lives to mere capital that should be exploited.²³ Data colonialism, as defined by Couldry and Mejias, is a combination of the "predatory extractive practices of historical colonialism with the abstract quantification methods of computing".²⁴ Data colonialism makes provisions for the preconditions for the advancements of industrial capitalism in a similar trajectory as colonialism previously did. Unlike historical colonialism, which allocated lands and other tangible resources to different actors, data colonialism allocates lives, in the form of data, to corporations for extraction and ownership.

Classical colonialism had its actors mostly from Europe and the United Kingdom. However, actors of data colonialism are not only from the West, including the United States of America but also China and India. With China and India, nations from the Global South are taking centre stage in this form of colonialism. It blurs the understanding of colonialism from polar geographies and the geographical concept of resistance between former colonizers and those colonized.

Data colonialism is carried out by constantly tracking human behaviours and lived experiences. This form of colonialism was exacerbated in the second half of the last decade to this present decade. For Couldry and Mejias, data colonialism has major similarities with classical colonialism because it normalizes "the exploitation of human beings through data, just as historic colonialism appropriated territory and resources and ruled subjects for profit." Actors of this form of colonialism are social media platforms, advertizing companies, and telecommunication companies. These actors approach data as though data are natural resources which just exist to be appropriated, extracted and exploited. Since, for owners of these corporations, human-emitted data is ownerless; it ought to be extracted by actors that have the technical resources to do so.

In the same way that contemporary corporations collect data owned by people, the classical colonialists also violently appropriated the resources of indigenous people and their lives and justified doing so by viewing those resources as ownerless and, thus, existing just for that purpose. For thinkers like Thatcher and colleagues, this appropriation of resources displays the power asymmetry of data subjects, col-

- 23 Coulddry and Mejias (n 4).
- 24 Couldry and Mejias (n 4) 337.
- 25 Couldry and Mejias (n 4) 336.

lectors, and "owners" of this data. Data colonialism and surveillance capitalism are two sides of the same coin.

Surveillance capitalism, a phenomenon related to data colonialism, as argued by thinkers like Shoshana Zuboff, is "an emergent logic of accumulation in the network sphere" using the "global architecture of computer mediation."26 Data colonialism and surveillance capitalism are concomitant; they are both driven by data-extractive ideologies. For Zuboff, surveillance capitalism should be understood as a logic that converts human actions into data using technologies.²⁷ This data extraction aims to create a model of prediction of human actions for capitalist gains without caring about what happens to the data subjects.²⁸ The actors of surveillance capitalism move towards finding sources of raw materials in human lived experiences, which include our faces, things we like and dislike, our voices, and everything related to our behavioural patterns through the mediation of technologies. Surveillance capitalists, using our data, nudge us toward actions that have economically profitable outcomes. From Zuboff's²⁹ analysis of surveillance capitalism, we can juxtapose the actions of surveillance capitalists with libertarian paternalists. This is because perpetrators of surveillance capitalism intend to know our behavioural patterns to shape and automate us through behavioural modification. By doing so, they create a power system that manipulates human behaviour to align with the needs of capitalist profit-making frameworks.

I contextualize the colonial and capitalist exploitations of human beings through data extraction to what the German philosopher Martin Heidegger calls *Bestand*. According to Heidegger, one way in which colonialism thrives is through control and dominance. The idea of control and dominance must be understood through the lens of *Bestand*. The direct translation of *Bestand* is "standing reserve," or reducing everything in the world into raw materials for production. The colonial mind creates an ecosystem where the colonial territory is standing reserve to be used. The colonial territory is "ordered to stand by, to be immediately on hand, indeed to stand there just that it may be on call for a further ordering." Even though Heidegger's *Bestand* may not have been written for this context of data extraction/data colonialism and capitalism, it turns out that his analysis is well suited for it.

Heidegger believes that the notion of *Bestand* creates a world where humans are standing reserve in such a way that they might lose touch with their *individualness* and their "commanding presence" for each other and see the other as disposable.³³ Since the beginning of the first technological revolution, the West has viewed and treated the colonized as mere raw materials for endless production and consumption. The resources in the colonized territory were not only the raw materials but also the human beings in the colonized territories. The

- 26 Shoshana Zuboff. "Big Other: Surveillance Capitalism and the Prospects of an Information Civilization." *Journal of Information Technology* 30(1) (2015):75–78.
- 27 Shoshana Zuboff. The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power (PublicAffairs 2019).
- 28 Zuboff (n 30) 70).
- 29 Zuboff (n 30).
- 30 Martin Heidegger. "The Question concerning Technology." Krell, (1993):307-342.
- 31 Catherine Botha. "Heidegger, Technology, and Ecology." South African Journal of Philosophy 22(2)(2003:160):157-171.
- 32 Heidegger (n 33) 322.
- Andrew Feenberg, "From Essentialism to Constructivism: Philosophy of Technology at the Crossroads" (1998:9) (Online). https://www.sfu.ca/~andrewf/books/Essentialism_Constructivism_Philosophy_Technology_Crossroads.pdf accessed 28 March 2022.

colonized were made to lose touch with what it means to "be" in the world as beings with dignity; instead, they were reduced to calculable and manipulable realities. The danger of this is that the colonized "is no longer Dasein as an open possibility, but rather a grounded actuality, a fixed identity." ³⁴

The conception or reduction of human beings to calculable realities has become even more eminent in the current data-driven epoch, where data-driven corporations see data subjects as mere numbers. Seeing data subjects as calculable realities has warranted these corporations to treat data subjects as beings without dignity, or *Dasein*, using Heidegger's terminology. These corporations see human beings merely as raw materials that should be exploited for economic gains. As Zuboff alludes, drawing from the social Darwinian survival of the fittest notion, data-driven corporations have the idea that they possess the innovative power to possess human beings and the data they exude. However, to curtail the powers of data-driven corporations, some theorists have argued from a decolonial lens that data subjects should resist being exploited by data-driven corporations. I expose their arguments in the next section to see the plausibility and limitations of their position.

3.1 Exposing the Decolonial Argument of Data Resistance

Some decolonial data thinkers have called for a decolonial approach to tackle the powers of surveillance capitalists and data colonialists.³⁶ Milan and Trerè³⁷ contend that the current social milieu has focused on a "techno-centric view of data devoting excessive attention to technical aspects to the detriment of appropriation, practices, and the human agency around and behind data."³⁸ Human agency ought to be at the fulcrum of data practice and appropriation. Ways in which human agency can be at the centre of datafication is to ensure that we turn towards a heterogenous perspective of culture and avenues of epistemic production. The above authors argue that we must approach data extraction from the perspective of data activism/data justice, whereby people from the Global South can examine bottom-up approaches to data practices, which will then resist the oppressed *modus operandi* of datafication.

One way to decolonize data extraction methodologies, as I will show later, is to recognize and reject the argument provided by data-driven extractors that data "just exist" and thus ought to be extracted. The false assumptions by these corporations that data are ownerless serve to justify their argument that data ought to be appropriated, extracted by technologies, and used for surveillance and other needs. However, we must note that these companies advance the notion that surveillance systems are necessary tools for our current social needs so that they can efficiently apply their capitalist framework to exploit us for their own economic gains.³⁹ For Zuboff, individuals and governments must join forces to resist data exploitation by surveillance capitalists. However, how can the government participate in resisting the forces of surveillance capitalism, when they clearly benefit from it? I think this is difficult to achieve if we follow the route of resistance, as I will show shortly.

- 34 Botha (n 34) 161.
- 35 Zuboff (n 33) 24.
- 36 See Couldry and Mejias (n 4).
- 37 Milan and Trere (n 11) 327.
- 38 Milan and Trere (n 11) 327.
- 39 Zuboff (n 33).

The notion of resistance is not advanced solely by Zuboff. Thinkers like Couldry and Mejias⁴⁰ also theorized that resistance to data colonialism and capitalism should be a priority for individuals and colonized people. They write that those whose data have been colonized must "reject the idea that the continuous collection of data from human beings is natural, let alone rational; and so rejects the idea that the results of data processing are a naturally occurring form of social knowledge, rather than a commercially motivated form of extraction that advances particular economic and/or governance interests."41 Their argument is not to be understood as a call for the rejection and resistance to data collection but the resistance to the apparatus used by these capitalist and colonialist institutions to collect data. They contend that this trackable apparatus dispossesses one's life; thus, people must recognise the dispossession of their lives as a start towards resisting this notion of data colonialism, surveillance capitalism, and unethical data extractions.42

The argument from resistance espoused by these theories is substantial and should be taken seriously for the following reasons. First, data subjects must be well-informed of the economic importance of their data, but most importantly, they must know that this economic importance is to the benefit of some data-driven corporations that do not care about their agency. Second, data subjects must know how and when to resist the extraction of their data, especially when it is to the detriment of their agency.

However, as much as the argument about resistance seems convincing, the limitation of the argument is that the argument does not provide a solid foundation for data activism that goes beyond specific contexts. Furthermore, by focusing on what data subjects ought to do without addressing the activities of data-driven corporations, the arguments fail to understand the complexities of data extraction. Addressing both data subjects and data-driven corporations is important because sometimes, the data subjects do not control how their data are extracted, processed and exploited, especially when their government is involved. As a result, I think providing arguments for human-centred data protection and extraction that apply to data subjects and data-driven corporations ought to be a prerequisite. I turn to the ethical principles that currently guide data laws to do this. I show why these principles are not strong enough, and afterwards, I provide more robust and plausible African-inspired human-centred principles as strong contenders for addressing the current situation.

4. Critically Engaging with the Current Ethical Guidelines/Principles for Data Mining

The ethical guidelines and theories guiding data mining and extraction have mainly emerged from the West. It is worth noting that while the majority of the world's population does not reside in the West but in Asia and Africa, ethical frameworks guiding decisions implemented in these geographies continuously emerge from the Western context – namely from its particular concerns, values, and conceptualizations. When protective ethical frameworks are generated from concepts originating in the West and are then used as "the guidelines", it risks disregarding other potentially more relevant frameworks shaped by the geographies and cultures at hand. This is in line with the thinking of the African philosopher, Mudimbe, in his discourse on the inven-

- 40 Couldry and Mejias (n 4).
- 41 Couldry and Mejias (n 4) 346.
- 42 Couldry and Mejias (n 4) 345.

tion of Africa. We can read the disregard of other alternative frameworks by Western-centred policymakers from the lens of Mudimbe when he claims that such thinking is centred on ethnocentric epistemology, which only affirms its own epistemic and cultural prejudices and biases against other frameworks.⁴³

For example, theorists such as Hargety and Rubinov⁴⁴ point out that underpinning ethical concepts that guide the design of sociotechnical artefacts (which by extension include data mining, such as human rights, justice, trust, transparency, fairness, human dignity, privacy) cannot be universally theorized, as they mean different things to different people. These concepts are engaged with from cultural perspectives as they arise from cultural contexts.⁴⁵ Policymakers conceptualize values and principles that speak to their context-specific needs.⁴⁶ Furthermore, in their analysis of 84 published ethical guidelines of sociotechnical systems and their use, Jobin and colleagues pointed out that 11 ethical principles - which include responsibility, non-maleficence, privacy, freedom and autonomy, justice and fairness, trust, dignity, sustainability, beneficence, and solidarity – have "significant semantic and concept-ual divergences in both how the ethical principles are interpreted and specific recommendations or areas of concern derived from each."47 In addition, Emma Ruttkamp-Bloem⁴⁸ argues that the different ethical schools of thought, such as deontology, utilitarianism, virtue ethics and communitarian ethics, have different values which inform them. Thus, the choice of using any of the ethical systems is "heavily influenced" by context and culture.

Following the line of thought of Jobin et al., ethical principles that shape the extraction of personal data, such as human rights, privacy, and respect for autonomy, stem predominantly from Western traditions and discourses. These discourses and traditions are predominantly guided by theories such as deontology and/or utilitarianism, especially regarding technologies. However, the three principles which I engage with, human rights, privacy, and respect for autonomy, are mostly informed by deontology. To make my point succinct, I briefly point out the insufficiency of the principles these theories produce and their explanatory rationales when protecting individuals against the harms of data extraction.

First, the dominant theories, such as right-based/duty-based or utility-based theories that produce and inform the above principles, usually function within an individualistic framework.⁴⁹ For example, the Kantian right-based/duty-based framework explains that an action can either be right or wrong based on its impact on the individual's intrinsic qualities or how it undermines their intrinsic qualities, such

- 43 Valentin Mudimbe, The Invention of Africa: Gnosis, Philosophy, and the Order of Knowledge (Indiana University Press 1988).
- 44 Alexa Hagerty and Igor Rubinov. "Global Al ethics: A Review of the Social Impacts and Ethical Implications of Artificial Intelligence." ArXiv Prepr. ArXiv190707892 (2019).
- 45 Stephen Robinson. "Trust, Transparency, and Openness: How Inclusion of Cultural Values Shapes Nordic National Public Policy Strategies for Artificial Intelligence (AI)." Technol. Soc 63(101421) (2020):1-15.
- Anna Jobin, Marcello, Ienca, and Effy Vayena. "The Global Landscape of Al Ethics Guidelines." Nat. Mach. Intell 1(2019:7):389–399.
- 48 Emma Ruttkamp-Bloem. Epistemic Just and Dynamic AI Ethics in Africa. In Responsible AI in Africa: Challenges and Opportunities, (Palgrave Macmillan 2023).
- 9 Thaddeus Metz. "Ubuntu as a Moral Theory and Human Rights in South Africa." African Human Rights Journal of Law 11 (2011):532-559.

as rationality and autonomy. So Similarly, utility-based theories consider an action to be good/bad or right/wrong based on the extent to which the individual can enjoy it, due to our intrinsic feature of sentience, that is, our ability to feel pleasure or pain. For this paper, I focus on the right-based approach.

The duty/right-based approach will tend to prohibit the harmful extraction of data because it violates the rights of individuals and/or deontological norms to be treated as individuals, provided they possess certain qualities like rationality and autonomy. The right-based approach to data protection is necessary but not sufficient because some nation-states' worldviews do not prioritize the right-based approach. For instance, the cultural and ethical dispositions of places such as sub-Saharan Africa are underscored by communal interests rather than individual rights. This worldview also applies to communal-based societies like China and some parts of Asia. This means that an individualist right-based approach to data protection would not be realizable in these contexts that do not emphasize individual rights. Furthermore, besides the context-specific tensions of the right-based approach, this approach protects data subjects against data extraction harms by allowing them to participate or not participate in a data extraction process. The right-based approach makes this possible through concepts such as informed consent and privacy laws. However, I think enforcing concepts such as informed consent and privacy laws is insufficient to protect individuals' data from being commodified. Why?

In my view, data extractors from data-driven corporations do not always provide the full information to which they want data subjects to consent. In some cases, the terms and conditions are too lengthy and filled with legal jargon for the data subject to read, understand, and rationally consent to; as a result, individuals end up consenting to something they do not understand. In addition, when an individual's consent data is used for, let us say, research or collected by humanitarian organizations for aid purposes, the data are not always destroyed but given to third parties, especially in the case of humanitarian organizations.52 When this happens, these organizations do not come back to seek the consent of those individuals before transferring their data to third parties, and third parties do not seek consent from the individuals regarding how their data will be used. In addition, regarding the protection of privacy, one way in which data-driven corporations circumvent this is by making the data anonymous and then commodifying the data. It is important to note that anonymity only means protecting data subjects' identity and not protecting their data. I would argue, however, that data is a representation of an individual. Commodifying data, in this sense, means commodifying the data subject and by implication, means using data subjects instrumentally, reducing them to objects rather than subjects. To mitigate this problem, I provide alternative principles that can provide robust data protective measures.

5. A New Way Forward: African Human-Centred Principles as an Appropriate Alternative

In this section, I critically propose African-centred principles, which I develop from Thaddeus Metz's⁵³ conception of Ubuntu, as alterna-

- Motsomai Molefe. "Individualism in African Moral Cultures." *International Journal of Philosophy of Culture and Axiology* 14(2) (2017a:52):49-68.
- 51 Molefe (n 53) 52.
- 52 Greenwood (n 10).
- 53 Thaddeus Metz, A Relational Moral Theory. African Ethics in and Beyond the Continent (Oxford University Press 2022).

tives to the right-based principles. I contend that the principles that stem from Metz's account of Ubuntu are more human-centred and can protect data subjects and guide a human-centred approach to data extraction. I begin by providing an overview of Metz's relational moral theory. Second, I briefly outline criticism that Metz's theory has suffered; afterwards, I justify my use of Metz's relational moral theory in this paper. Finally, I provide some prescriptive measures from Metz's theory to show how owners of data-driven corporations ought to treat data subjects.

Metz's relational moral theory espouses friendly ways that Africans relate with each other. He argues that Africans from sub-Saharan Africa relate to each other by identifying with each other and exhibiting solidarity. This idea of identity and solidarity draws from the African notion of harmonious living between members of the community. For instance, the Kenyan theologian John Mbiti points out that in sub-Saharan Africa, a person is seen in relation to others, personified in the claim that "I am because you are and since you are, I am". The view that "a person is a person through other people" also captures the salient nature of interpersonal relationships within this context.²⁴

Metz provides two conditions that best explain this point: identity and solidarity. On the one hand, identifying with group members means "considering oneself part of the whole, being close, participating, sharing a way of life, belonging, and thinking of oneself as bound to others." On the other hand, to exhibit solidarity means "achieving the good of all, being sympathetic, sharing, promoting the common good, engaging in service and being committed to others' good...caring for others' quality of life." 56

On the one hand, identifying with others is achieved through the following: cognitive identity, emotional identity, practical identity, and motivational identity. First, to cognitively identify with others means to refer to oneself as "we" rather than "I." Second, to identify with others emotionally means priding oneself as a member of a group or feeling embarrassed at the adverse things a member of the group does. Third, practically identifying with others means "coordinating one's behaviour with them when pursuing goals, making adjustments to either one's own goals or one's pursuit of them, so that others' goals can also be realised". Finally, having a motivational identity with others implies cooperating with others beyond prudential reasons or fear of hostility; it means cooperating with others for their own sake.

By contrast, exhibiting solidarity means having a certain awareness of the other, an awareness that is manifested through attention to the peripherical features, details, and expressions of the other and through reflecting the innermost part of the other. To exhibit solidarity means to be empathetic towards the other in the "we web," to know intuitively what it feels like to be the other, to be sympathetic towards the other, to celebrate the successes of the other, and to suffer with the other when they fail. Exhibiting solidarity means striving to work together to improve their lives and meet the other's social, biological, or psychological needs. It means "not merely striving to make people

- 54 Johan Mbiti, African Religions and Philosophy (Heinemann 1970).
- 55 Metz (n 56)147.
- 56 Metz (n 56) 147.
- 57 Metz (n 56) 148.
- 58 Metz (n 56) 149.
- 59 Metz (n 56) 149.
- 60 Metz (n 56) 149.

better off or to advance their self-interest, but also to make others better people or to advance their self-realisation." Metz argues that identity and solidarity are concomitant, for "identity without solidarity is hard-hearted and solidarity without identity is intrusive." 62

For Metz, the communal relationship of identity and solidarity is grounded in friendliness and has moral status. 63 One can be part of a friendly relationship in the communal sense when one can be a subject of communal relationship, that is, relating with others, or an object of communal relationship, allowing oneself to be related with. Being a subject of communal relationship "involves identifying with others and exhibiting solidarity with them...think of oneself as 'we,' corporate with others, help others and act for their sake out of sympathy."64 Being an object of communal relationship means being considered as we, letting your goals be advanced, and letting others act for your own sake out of sympathy. A being can be both a subject and an object of communal relationships. Beings that are both subject and object of communal relationships, like human beings, have full moral status/dignity, and beings that are only objects of communal relationship have a partial moral status that varies in degrees according to the capability of relating with others.⁶⁵ However, Metz's African relational moral theory has suffered from some criticism by predominantly African scholars. In what follows, I briefly show some of the criticism to justify why I prize his theory in this paper.

5.1 Some Criticism of Metz's Relational Moral Theory

In this section, I briefly point out some of the criticism faced by Metz's theory of Ubuntu. Some of Metz's critics are Motsomai Molefe⁶⁶, Polycarp Ikuenobe⁶⁷, Anthony Oyowe⁶⁸, and Mogobe Ramose⁶⁹. Due to the limited scope of this paper, I only engage with Oyowe's, Ikuenobe's, and Molefe's criticism of Metz because of how their critique directly bears on some of my claims in this section.

For Oyowe, Metz's notion of Ubuntu is more liberal than communitarian. Oyowe contends that a communitarian theory can only be considered as such if the theory captures the tenet of communitarianism sufficiently. These tenets must be the causal dependence of an individual on the community and the individual's belonging to the web of relationships. In this sense, a communitarian theory, for Oyowe, has to be one that fully captures the non-instrumentality of the community; that is, the community comes first hierarchically over other alternatives, such as the individual.

The doubt for Oyowe is that Metz's theory focuses somewhat more on the individual rather than communal harmony. In this sense, an individual can choose to value human rights dictates, which is also morally right, over communal harmony. In doing so, the individual does not substantively prioritize communal harmony despite the

- 61 Metz (n 56) 152.
- 62 Metz (n 56) 155.
- 63 Metz (n 56) 168. 64 Metz (n 56) 168.
- 65 Metz (n 56) 169.
- 66 Motsomai Molefe. "A Critique of Thad Metz's African Theory of Moral Status." South African Journal of Philosophy 32 (2) (2017b):195-205.
- 67 Polycarp Ikuenobe. "Communitarian Basis for Moral Dignity: An African Perspective." *Philosophical Papers* 45(3) (2016):437-469.
- 68 Anthony Oyowe. "Strange Bedfellows: Rethinking Ubuntu and Human Rights in South Africa." African Human Rights and Law Journal 13(2013):103-124.
- 69 Mogobe Ramose. "But Hans Kelsen was not Born in Africa: A Reply to Thaddeus Metz." South African Journal of Philosophy 26(4) (2007): 347-355.
- 70 Oyowe (n 71) 105.
- 71 Oyowe (n 71) 105.

morality embedded in human rights dictates.

Contrary to Oyowe, Molefe argues that Metz's theory places more emphasis on human moral status other than the moral status of non-human entities, such as animals.⁷² Molefe casts doubt on the plausibility of Metz's theory, claiming that it uses some facets of human nature to grant some ultimate intrinsic moral status to human beings, making humans preferable over non-human entities in times of conflict. By so doing, only humans can be preferred for their own sake.⁷³

Lastly, Ikuenobe attacks Metz's understanding of the African communitarian account of dignity⁷⁴. For Metz, dignity is a status which is causally dependent on a person's capacity for communal relations with others.⁷⁵ It is a status that is non-instrumental and superlative; that is, dignity is good for itself. Dignity does not vary incrementally in accordance with an individual's gradient behaviours or traits, such as meritorious deeds, excellent achievements, or virtuous disposition. It is this last point that Ikuenobe criticizes.

For Ikuenobe, the African communitarian account of dignity is that which is both a moral status and achievement. Dignity, for Ikuenobe, is earned by individuals in the community through their moral commitments and their "capacity for, and manifesting of self-respect and respect for, and responsibility to, others. This involves how one comports oneself in one's behaviour to enhance harmonious living, which implies being worthy of respect that engenders respect by others." ⁷⁶ For an individual to be accorded dignity, they must be able to respect others as well as be respected. Lastly, Ikuenobe equates personhood to dignity. For a being to be accorded dignity, the being must, first, be a person. ⁷⁷ In what follows, I provide justification for prizing Metz's theory in this present paper, regardless of the criticism his account of Ubuntu may face.

Although these criticisms apply to the earlier Metz, they also have some implications on the later Metz, as his theory still maintains some of its integral claims discussed here. More importantly, the criticisms against Metz do not really affect my argument in this paper but strongly ground and strengthen my claims. I show this in the following ways.

First, Metz's theory is more flexible in grounding some principles than most communitarian theories that unequivocally place communal harmony above the individual in every circumstance based on the ontological superiority of the community over the individual. For instance, we see this in the case of Oyowe. In Metz's account, there is an interplay between the individual and the community, which depends on the relationship between the individual and the community. The individual and the community owe each other some form of harmonious relationship. This duty of relationship grounds the moral status and dignity of the individual. This view is particularly important in building my globalized principles for

- 72 Molefe (n 69) 195.
- 73 Molefe (n 69) 195.
- 74 Ikuenobe (n 70).
- 75 Metz (n 52).
- 76 Ikuenobe (n 70) 3.
- Personhood, in this sense, for Ikuenobe, is both descriptive and normative. The descriptive criteria are the biological, psychological, and metaphysical qualities that have to be possessed, while the normative criteria are the rational and relational capabilities that the individual must also have.

ethical data extraction. Here I take data extractors to be persons who owe their data subjects ethical treatment in their method of data extraction based on the intrinsic worth their data subjects have. I will be clarifying this point shortly.

Second, the criticisms from Molefe and Ikuenobe strengthen my claim that human beings have dignity, which warrants that they be treated respectfully and not be reduced to objects. How this dignity is achieved or whether this dignity or moral status is valorized, and whether it places human interest above non-human interest, such as animals, is another debate beyond the scope of this paper. My point in this paper is to show that human beings have dignity that warrants that they be treated with respect and non-instrumentally. I contend that Metz's theory clearly espouses this non-instrumentality of human dignity that I use in this paper. Furthermore, my concern in this paper is particularly on the ethics of human data extraction rather than data extraction in general.

Finally, Metz's relational account of Ubuntu is deontologically communitarian and non-reductive. However, its deontological outlook is different from the Western-centred duty-based approach, like Kantianism, which focuses on the individual rather than on the group. The relational duty-based approach is based on the duties we owe to each other in the web of relationships between subjects and objects in a communal setting. Both data extractors and subjects are part of this community. In other words, regarding human data, because of our moral status as both subjects and objects of communal relationships, owners of data-driven corporations owe us some duties, such as caring for us, respecting our moral status, and being benevolent to us for our own sake. Why should data-driven corporations care for their data subjects? In the next section, I build my argument based on the exposition of my prized African relational ethics in this section.

6. Restoring Dignity to Data Subjects by Data-Driven Corporations

To restore the dignity of data subjects, it is a prerequisite that the following prescriptive measures be taken seriously. These prescriptive measures are prescriptive principles that I developed from the sub-Saharan notion of care, respect for human dignity, and beneficence, as espoused in the previous section. As Metz's theory suggests, these principles are non-reductive but co-substantive because of their non-instrumentality when applied to persons.

First, the principle of care is important within the sub-Saharan human-centred ethical framework. As mentioned in the previous section, the sub-Saharan human-centred approach to caring for others is non-instrumental. In this sense, people do not care for others for instrumental reasons or because of what they stand to benefit from caring for others. People care for each other in the above context because they are in the same web of relationships: identity and solidarity. For example, Person A cares for Person B and vice versa because they both recognize the humanity and personhood in each other. Given this recognition, Person A is obliged to respect the humanity of Person B, treat Person B justly as she would love to be treated, and ensure that the happiness of Person B is prioritized. How does this principle apply to data subjects and data extractors?

Regarding the principle of care, data subjects must be cared for by data extractors not instrumentally but as ends in themselves. When making data subjects visible, owners of data-driven corporations must remember that they are human subjects, not commodities. By

so doing, they must care for them, care about the impact their actions may have on them and ensure the protection of the data subjects' interest before any economic interest. They must ensure that the data they collect from data subjects be used to ensure the interest and self-realization of the subject. I will make a case for this principle with the other two using humanitarian organization data mapping, shortly.

Second, the principle of beneficence can be conflated with the aforementioned principle of care. Because sub-Saharan Africans care for human subjects non-instrumentally, they treat them benevolently. Sub-Saharan Africans tend to avoid harming those considered persons at all costs because human beings possess intrinsic worth, which I explain shortly in the next principle, which is inalienable. Human subjects are non-reducible to objects, so one of the best ways to treat them is to ensure that they can communicate how they wish to be treated. How does this apply to data subjects and extractors?

The principle of beneficence as it pertains to data subjects and data extractors ensures that owners of data-driven corporations collaborate with data subjects to ensure that they meet the needs of their subjects non-instrumentally. Owners of data-driven corporations must ensure that they cooperate with those from whom they extract data according to how the data subjects deem fit or how they think it is good for their own sake. These corporations must empathize with their data subjects by knowing what it feels like to be them – by realizing what it is like to be exploited for capitalist gains. They must not impose what they think is good for them but rather take into account what the subjects say is good for them; that is, goodness must be evaluated according to the needs and terms of the data subjects.

Third, respect for human dignity is an umbrella principle that overarches the abovementioned principles. As discussed in the previous sections, a person in the sub-Saharan African context possesses moral worth; she is worthy of moral consideration, and her moral status requires that she be treated respectfully and non-instrumentally. A person is one who can enjoy harmonious communal relationships as a subject and object of moral consideration. This has been spelt out in the previous section and should not be fully restated here. However, how does respect for human dignity apply to the relationship between data subjects and extractors?

The principle of respect for the dignity of human life prescribes that owners of data-driven companies are mandated to ensure that their means of data extraction promote the common good and that they care for the quality of the lives of the subjects whose data they extract. They must understand that humans have dignity, a non-instrumental and irreducible value. The data they exude represents them; thus, their data must be respected and treated as though they were treating actual humans. They must not reduce their data subjects to calculable realities, using Heidegger's notion of *Bestand*. They must ensure their actions do not harm the data subjects but promote their well-being. In the final section, I look at the practical implications of these principles by applying them to humanitarian organization data mapping to see how they work.

6.1 The Practical Application of Care, Respect for Human Dignity, and Beneficence: A Case of Humanitarian Data Mapping

As briefly mentioned in the first section of this paper, humanitarian organizations are one of the perpetrators of the commodification of communities for data gains by making individuals visible and vulner-

able to data exploitation. However, these players and their role in data extraction are not properly investigated because of the services they provide to places facing challenges like famine, flood, and poverty. Humanitarian service providers have proven to be of immense importance during times of crisis, so their functions are usually hailed with novelty, and their operation legitimized. However, the implication of legitimizing their operations is that it gives these organizations the power to perform surveillance on people using technologies without their "explicit consent or knowledge" 78.

Over the years, humanitarian organizations have increased their partnerships with big corporations such as Facebook, Microsoft, and Amazon. For example, Facebook created a team in 2018 called "Data for Good," which uses the data from Facebook maps to search for those in need of aid during disasters. This is in partnership with over 30 non-profit organizations, such as the United Nations International Children's Emergency Fund (UNICEF), the World Food Programme (WFP), and the International Federation of Red Cross and Red Crescent Societies.79 Furthermore, a collaboration between Microsoft, Amazon, Google, the United Nations, the World Bank, and the International Committee of the Red Cross was formed in 2018 to tackle and prevent future global famine using predictive data.80 However, what these partnerships do, besides offering their aid, is to expose data subjects to data extraction abuses by making human beings visible in a way that enables their data to be exploited. In order to mitigate this problem, it is important to turn to my preferred principles for a human-centred method of data extraction.

The services humanitarian organizations provide, especially in places suffering from natural disasters, hunger, and poverty, are commendable. However, their benevolence should not lead to the reduction of the human person to whom they provide service to a *mere thing*. They must understand that despite the afflictions suffered by these people, they still possess dignity and should be cared for respectfully. Services should be provided in ways that ensure that the beneficiaries are treated non-instrumentally.

One way in which treating the human beings they assist can be unethical or non-human-centred would be by taking undignified photos of them and sharing these photos with third parties without the explicit consent of those involved. Another way is using drones as surveillance instruments in the areas where these people live without their explicit consent. I know humanitarian organizations require funding to carry out their benevolent works and care for those affected by disasters. These funds mostly come from organizations such as Facebook, Amazon, and Microsoft, the subscribers to which constitute the audience with whom they share their collected data. However, the fact that they require funding from or via these corporations does not imply the right to devalue the human beings they assist.

Lastly, humanitarian organizations are responsible for finding out from these corporations what they intend to do with the data they share with them before handing over the data of vulnerable people to these colonialist and capitalist organizations. I contend that they owe their vulnerable subjects these responsibilities. In addition, following these prescriptive guidelines stated here would imply adhering to my preferred human-centred approach to data extraction.

Concluding Remarks

This paper developed a human-centred approach to data extraction by introducing African relational principles to guide how data should be approached and extracted in our current social epoch. According to the WEF, data have become an important aspect of economic values. However, some corporations have appropriated, extracted, and exploited data for their economic interest to the detriment of their data subjects; this view is what some theorists have called surveillance capitalism and data colonialism. The exploitation of data by surveillance capitalists and data colonialists has been based on the logic that data are "just there" to be exploited. The problem with this view is that data represent a human person, and data are not just commodities that exist merely to be exploited. To tackle this problem, data decolonial thinkers proposed the notion of resistance. For these theorists, data subjects must resist the exploitation of their data by these capitalist and colonialist corporations.

However, in this paper, I took an alternative approach to the issue of data exploitation by showing that the idea of resistance only applies to data subjects and not to owners of data-driven corporations. Considering that data subjects do not always control how their data are extracted nor what is subsequently done with their data, I proposed human-centred principles, care, beneficence, and human dignity that should guide data extraction by corporations. These guidelines prescribe how they should approach the notion of visibility and legibility. To achieve this, I rejected the right-based principles of human rights, respect for human autonomy, and privacy because of their individual-centrism and inability to ground a human-centred approach to data extraction.

Acknowledgement

I thank Professor Catherine Botha for taking the time to read this paper's first draft. I also thank Mr Harry Kapatika for his insights, critique, and constructive comments on the earlier draft. In addition, I thank the two blind reviewers for their invaluable input.

78 Greenwood (n 10) 90.

79 Catherine Cheney, "How Facebook has Tripled its Disaster Maps Partnerships," (2018) *Devex*, https:// www.devex.com/ news/ how-facebook- has- tripled-its- disaster- maps- partnerships- 93951 (accessed 22 February 2023).

80 World Bank, "United Nations, World Bank, and Humanitarian Organizations Launch Innovative Partnership to End Famine," (2018) (Online), https://www.worldbank.org/en/news/press-release/2018/09/23/united-nations-world-bank-humanitarian-organizations-launch-innovative-partnership- to- end- famine (accessed 20 February 2023).

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