Technology and Regulation

Tactics of Earthy Data
Decolonizing for the Anthropocene

diane U+16DE

decolonizing, decolonization, Anthropocene, data governance, land relations, data production, labour, settler data, Indigenous theories of knowledge, legal theory

This article presents that decolonizing cannot happen without acknowledging the role of land relations in constituting data and radically reconstituting what we are governing when we claim to govern 'data.' To this end, it reflects upon how the juxtaposition of the 'data colonialism' and the 'Anthropocene' discourses can be productive by highlighting their common settler colonial impulses in understanding the categories of the 'material' and the 'epistemological' as distinctive. Next, the article draws upon the Place-Thought framework proposed by Anishinaabe-Haudenosaunee scholar Vanessa Watts and others to argue that in addition to being a demand for giving land titles to Indigenous peoples, #LandBack movements should be understood as a decolonizing call for realizing the seamless coherence of the material-epistemological, both outside and within Europe. The last section proposes earthy data as decolonizing tactics against the settler understandings of data.

diane@witchcraftispolitical.info

1. Introduction

As a legal community entrenched in the Western legal tradition, what do we govern when we seek to govern 'data'? In some senses, the answer to this question seems obvious. In governing data, we obviously seek to govern who has access to data, how data flows, and for what purposes data may be used. Data governance might concern institutions that determine whether data may be transferred from one individual to another or to a firm, from one firm to another or from one jurisdiction to another, and what circumstances and technical standards are acceptable for such transfers.[1] Data governance may further determine in which ways it is acceptable to deploy data, especially personal data, and in which other ways the applications of data are unacceptable and/or in violation of fundamental and human rights.[2] In this dominant legal framework of what we understand as data governance, the figures of the human individual on the one hand, and that of the economy on the other, loom large. As a result, it is assumed that while the utilization of data through its constant extraction and movement is indispensable to the operation of the globalised digital economy today (which the World Bank estimates to constitute 15.5% of global GDP, growing two and a half times faster than global GDP over the past 15 years[3]), the human individual must be protected against this economic onslaught and lust for data. Within even progressive and more critical discourses of data governance, this opposition between the economy and the individual — and data as the crucial link that connects the two — is taken for granted.[4] This opposition is reminiscent of the opposition between the individual and the social, which in liberal theory are seen to lie on two ends

1 *See for example, governing legislations in the EU in this regard, Regulation (EU) of 2018/1807 the European Parliament and of the Council of 14 November 2018 on a framework for the free flow of non-personal data in the European Union [2018] OJ L303/59; Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information [2019] OJ L 172 (Open Data Directive); Directive (EU) 2013/37/EU of the European Parliament and of the Council of 26 June 2013 amending Directive 2003/98/EC on the re-use of public sector information [2013] OJ L 175 (PSI Amendment).*

2 *See for example, governing legislation in the EU in this regard, Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L119/1.*

3 The World Bank, 'Digital Development,' 27 October 2020 https://www.worldbank.org/en/topic/digitaldevelopment/overview accessed 14 April 2022.

4 See for example, Julie E. Cohen, *Between Truth and Power: The Legal Constructions of Informational Capitalism* (Oxford University Press 2019); 'Salomé Viljoen, A Relational Theory of Data Governance' (2021) 131(2) The Yale Law Journal 573: Helen Nissenbaum, *Privacy in Context* (Stanford University Press 2009).

Lecturer at a university in south-west England

of a spectrum.[5] The bulk of data governance discourse then becomes concerned with how to strike a balance between the interests of the human individual and the wider socio-economic interests in this scenario. This opposition or binary is characterised by the appearance of discourses of data subject rights on the one hand,[6] and issues of structural power in the digital economy concerning the access and distribution of data, on the other.[7] In a field of governance whose primary focus is a negotiation between the binary of rights of the individual and wider socio-economic interests, data itself is presented and appears as an obvious, transparent or unproblematic concept connecting both sides of said binary.

My contention in this article is that this understanding of data as obvious or transparent is deeply rooted in settler cultures and that decolonizing is therefore impossible without problematizing what underlies this settler culture(s) of data. In using the term 'settler' or 'settler culture(s)' here and throughout this article, I refer not just to continuing settler colonialism of the form whereby lands of Indigenous peoples[8] are seized and claimed by settlers as their own—although that undeniably is a core part of it. Indigenous scholars have, however, further outlined that the terminology of 'settler' and 'settler culture(s)' invokes a broader cultural configuration, whereby land is objectified and treated in terms of natural resource and/or property.[9] Even when acknowledging dependence on it, settler cultures treat their existence as fundamentally separate from the land because they approach the land as the Other, thus seeking to conquer, tame, civilize, develop or resource it. 'Land' here also refers to water, sky, or underground,[10] and should not be understood as a singular entity but rather as multiplicities of complexly entangled human-plant-fish-sky-water-animal-soil-minerals-etc. relationships

and agencies.[11] Distinguishing settler and Indigenous cultures thus by their fundamentally different orientations in making land relations, I propose that the term 'settler' can be extended to identify white cultures within Europe whereby the relationship to land is framed dominantly in terms of an object or a resource. More broadly, the term may be used to refer to both European and non-European cultures, which may or may not be currently occupying Indigenous territories, but which understand land fundamentally in objectified terms as property or resource.

Having clarified this broader understanding of 'settler', I write from the position of a queer brown neurodivergent cis dwija migrant woman currently residing in Western Europe, who has been educated within Western(ized) settler legal frameworks in India and Europe, has been socialised and relatively privileged within settler cultures, and critically seeks to problematize her settler positionality and cultures. This positionality context also preludes my use of pronouns like "we," "us" and "our" throughout this article to refer to a settler positionality. This pronoun usage must not be understood as a universalization of settler positionalities and cultures, but rather is done to direct this article primarily to other settler readers and urge us to take personal and cultural responsibility for our uneasy unsettling by centring and taking Indigenous critiques of settler cultures of knowledge production seriously, and grasping the fundamental relevance of these critiques to us instead of easily othering them. This, so that we may know and take responsibility for the complicity of settler (legal) cultures and contribute to the necessary material-epistemological-spiritual change. And it is against this background that I contend that decolonizing cannot happen without acknowledging the role of land relations in constituting data and radically rethinking what we are governing when we claim to govern data.

To make this argument, this article draws upon the work of Indigenous scholars and activists, while also implicitly muddying the settler distinction made between 'data' and 'knowledge.'[12] I particularly engage the Place-Thought framework outlined by Anishinaabe and Haudenosaunee scholar Vanessa Watts and the longstanding demand of Indigenous liberation movements globally for "Land Back" (#LandBack)[13] to reflect upon (a) the role of land relations in the construction of data and (b) their subsequent erasure from the settler understanding of data. To delineate the relevance of these bodies of Indigenous work to our data governance discourses, my first point of departure is the presently influential frameworks of data colonialism outlined by Couldry and Meijas (2019) and Thatcher, O'Sullivan and Mahmoudi (2016).[14] The limitations and critiques of these data colonialism frameworks are highlighted to argue that they are rooted in a settler approach to data. In doing so, this article proposes a tac-

5   *See* generally, Stuart Hall, 'Variants of Liberalism,' in James Donald & Stuart Hall, *Politics and Ideology: A Reader* (Open University Press, 1986) 66; Kimberlé W. Crenshaw, *On Intersectionality: Essential Writings* (The New Press 2017). In the specific context of data and algorithmic governance, *see on this point,* Anna Lauren Hoffmann, '*Where fairness fails: data, algorithms, and the limits of the antidiscrimination discourse' (2019) 22(7) Information, Communication & Society* 900 .

6   *See* for instance, Gloria Gonzalez *Fuster, The Emergence of Personal Data Protection as a Fundamental Right of the EU Law (Springer 2014); Linnet Taylor, Luciano Floridi, Bart van der Sloot(eds.), Group Privacy: New Challenges of Data Technologies (Springer 2017).*

7   *See* for instance, Julie E. Cohen, *Between Truth and Power: The Legal Constructions of Informational Capitalism* (Oxford University Press 2019); 'Salomé Viljoen, A Relational Theory of Data Governance' (2021) 131(2) The Yale Law Journal 573.

8   I use the terms 'Indigenous' and 'Indigenous peoples' (with capital 'I') throughout this article in contrast with the figure of the settler. The UN Indigenous and Tribal Peoples Convention identifies Indigenous peoples as follows: "*(a) Tribal peoples in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations; (b) Peoples in independent countries who are regarded as Indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment of present State boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political* institutions." Additionally, self-identification as Indigenous or tribal is regarded as a fundamental criterion for determining Indigeneity under the UN Convention. *See* UN Indigenous and Tribal Peoples Convention, 1989 (No. 169), accessed 16 April 2022.

9   *See* distinction between Indigenous and settler relations with the land in Aimee Carrillo Rowe & Eve Tuck, 'Settler Colonialism and Cultural Studies: Ongoing Settlement, Cultural Production, and Resistance' (2017) 17(1) Cultural Studies --- Critical Methodologies 3, 5.

10   *Ibid.*

11   *Infra* n. 68.

12   In many ways the distinction between 'data' and 'knowledge' pervasive today across fields of Computer Science, Media and Communication Studies, Data Governance, Information Law etc. comes to us through the last couple or so centuries of development of scientific positivism and cybernetic theories. This distinction has, however, been deemed politically problematic in both Indigenous Studies and feminist Science Studies scholarship. *See* for instance, Linda Tuhiwai Smith, Decolonizing Methodologies: Research and Indigenous Peoples (Zed Books 1999); Lisa Gitelman (ed.), "Raw Data" is an Oxymoron (MIT Press 2013); Mary Poovey, A History of the Modern Fact (University of Chicago Press 1998). On the role of cybernetic theory in constructing data, see also, Orit Halpern, Beautiful Data: A History of Vision and Reason since 1945 (Duke University Press 2014).

13   *Infra* n. 62.

14   *Infra* n. 16.

tical response of 'earthy data'. I believe that such a tactical response could be useful in the decolonizing process. Decolonizing demands (but cannot be limited to) grappling with and rethinking settler legal frameworks that understand data as unproblematically separate from the land relations that shape our approach to the planetary and the Earth. *Prima facie*, it may seem that with the term 'planetary', all I am proposing is that the environmental effects of data production be accounted for within the framework of data governance. While this reading would not be entirely amiss, tactics of earthy data evoke substantially more: They blur our received distinctions between the categories of the 'human/individual', 'social', 'economic', and even the 'environmental' as well as 'material' and 'epistemological,' 'mind' and 'body' by evoking a particular sense of the land.

In recent times, the discourse of the planetary has been rejuvenated in settler academe through the framework of the 'Anthropocene,' which, if we are to talk about 'data as earthy' when writing for a European academic journal, perhaps cannot be entirely ignored. So along with the discourses of data colonialism, the Anthropocene constitutes the other departure point in this article for problematizing the transparency or givenness (which conceals the settler understanding) of data. The Anthropocene thesis proposes a new eponymous geological epoch of immense instability in the Earth's climatic system and ecology, brought about by emerging human practices of (excessive) production, consumption, and habitation.[15] As will be seen, this thesis has been both generative and controversial for many reasons, not least for the way that its formulation of the 'human' hides problematic racial and colonial politics. Given this, my hope is that the juxtaposition of the discourses of data colonialism and the Anthropocene that this article undertakes produces fissures that open possibilities for highlighting the relevance of Indigenous critiques of settler knowledge production to our discourses of data governance and for developing unsettling and earthy data tactics that move towards decolonizing.

Accordingly, this article in divided into three parts: The following section reflects upon how the juxtaposition of the data colonialism and the Anthropocenic discourses can be productive in developing decolonizing tactics for earthy data by highlighting both these discourses' colonizing impulses in understanding the categories of the 'material' and the 'epistemological' as distinctive or separate. Section 3 draws upon the Place-Thought framework proposed by Vanessa Watts and others to argue that in addition to being a demand for giving land titles back to Indigenous peoples, the Indigenous demand for #LandBack should be understood as a decolonizing call for realizing the seamless coherence of the material-epistemological. The section illustrates how such a decolonizing call enables the acknowledgement of the full agency of the land in knowledge production and why engaging with Indigenous scholarship and activism is crucial for carving a decolonizing legal imaginary 'for' the Anthropocene. In doing this, challenging the settler conceptualization of data as 'epistemological' and the land as 'material' — concepts which mould the legal imaginary *of* the Anthropocene — becomes essential. Section 4 proposes earthy data as a decolonizing tactic against this settler understanding of data. Without attempting to redefine or conceptualise, this section instead proposes two provocations and a set of open questions around the tactical deployment of earthy data. It proposes earthy data as a dynamic and contingent set of material-epistemological relation-

ships of power between those implicated in data production and includes those deemed 'human' and those deemed 'inhuman' (viz., lands and their racialized and caste-oppressed peoples). Moreover, the section envisages that decolonizing cannot be initiated piecemeal by addressing only one discipline or area of law (e.g., data governance), nor only 'law' or academia and necessarily entails a challenge to the politics of disciplinary and intradisciplinary boundaries of what is understood as 'legal' research, pedagogy, and practice in settler cultures, and how it is distinguished from the 'social' and the 'economic,' and the 'inhuman.'

2.   Data Colonialism and the Anthropocene

This section intends to set the terms of inquiry by unpacking how the ostensibly unrelated discourses of data colonialism and the Anthropocene in fact share common problematics concerning the separation of the 'material' and 'epistemological' spheres. It further highlights why serious consideration of these problematics is relevant to begin the process of decolonizing.

a. The new discourse of data colonialism and its erasures

The past few years have seen the emergence of a new discourse of colonialism viz., 'data colonialism' put forth by several scholars and popularised by the work of Couldry and Meijas, and others like Thatcher, O'Sullivan, and Mahmoudi.[16] While earlier critical scholarship — notably in the fields of media studies, postcolonial science studies and development studies — has long pointed to the digital divide and the Global North/South disparities with regard to digital access and the neocolonial economy triggered by the digital phase of globalization,[17] this new discourse on data colonialism seeks to distinguish itself. It does so by framing data colonialism as '*the appropriation of life in general and its annexation to capital, through various mechanisms of which one is the digital platform*.'[18] In proposing this, this new discourse of data colonialism seeks to complicate the notions of Global North and South by understanding both 'Global North' and 'Global South' economies like the United States and China

15   Kathleen Birrell & Daniel Matthews, 'Laws for the Anthropocene: Orientations, Encounters, Imaginaries' (2020) 31 Law & Critique 233.

16   Nick Couldry & Ulises A. Meijas, *The Costs of Connection: How Data is Colonizing Human Life and Appropriating it for Capitalism* (Stanford University Press 2019); Nick Couldry & Ulisses A. Meijas, 'Data Colonialism: Rethinking Big Data's Relation to the Contemporary Subject' (2019) 20(4) Television and New Media 336; Jim Thatcher, David O'Sullivan & Dillon Mahmoudi, 'Data colonialism through accumulation by dispossession: New metaphors for daily data' (2016) 34(6) Environment and Planning D: Society and Space 990. See also, Shakir Mohamed, Marie-Therese Png & William Isaac, 'Decolonial AI: Decolonial Theory as Sociotechnical Foresight in Artificial Intelligence' (2020) 405 Philosophy and Technology 1.

17   *See* for instance, Philip, Irani, & Dourish (2012), infra n. 96; Amin Alhassan & Paula Chakravartty, 'Postcolonial Media Policy under the Long Shadow of the Empire' in Robin Mansell & Mark Raboy (eds.), The Handbook of Global Media and Communication Policy (Blackwell-Wiley 2011); Richard Heeks, 'Do Information and Communication Technologies (ICTs) Contribute to Development?' (2010) 22(5) Journal of International Development 625. See also, Laura Schelenz & Maria Pawelec, 'Information and Communication Technologies for Development (ICT4D) critique' (2022) 28(1) Information Technology for Development 165; Paola Ricaurte, 'Data Epistemologies, The Coloniality of Power, and Resistance' (2019) 20(4) Television and New Media 350; María Soledad Segura & Sivio Waisbord, 'Between Data Capitalism and Data Citizenship' (2019) 20(4) Television and New Media 412; Payal Arora, 'Decolonizing Privacy Studies' (2019) 20(4) Television and New Media 366.

18   Nick Couldry & Ulisses A. Meijas, 'Data Colonialism: Rethinking Big Data's Relation to the Contemporary Subject' (2019) 20(4) Television and New Media 336, 338. See also, Nick Couldry & Ulises A. Meijas, *The Costs of Connection: How Data is Colonizing Human Life and Appropriating it for Capitalism* (Stanford University Press 2019) 85-87.

as equally implicated in the project of data colonialism.[19] By centring the digital platform, this account of data colonialism intends to mark a conceptual shift: from analysing power relations in terms of North/South or East/West to highlighting the asymmetries of power between those who produce data for the digital platform and those who own it.[20] Digital walled gardens, monopolies and processes of privatization, which play a key role in creating and maintaining these asymmetries of power between the users and owners of digital platforms, then become the focus of critique for this discourse of data colonialism.[21]

While complication of the discourses of Global North/South, East/West is indeed quite necessary,[22] the way this new account of data colonialism approaches it is rather problematic.[23] To illustrate this, I suggest considering the implications of the aforementioned conceptual shift which this discourse of data colonialism proposes. Through this conceptual shift, ideas of 'digital frontierism' — the idea of data and the digital as new frontiers to be explored, expanded, and conquered — are particularly highlighted in this account of data colonialism.[24] Such frontierism, it argues, finds parallels with so-called 'historical colonialism,' where new lands, bodies, and resources are discovered and exploited. Underlying both kinds of frontierism, however, is the extractivist impulse of capitalism.[25] This extractivist impulse, it is proposed, operates via new types of human relations, termed 'data relations,' which enable the extraction of data for commodification. Through these data relations, '*social life all over the globe becomes an "open" resource for extraction that is somehow "just there" for capital.*'[26]

This discourse of data colonialism betrays a peculiar approach to colonialism itself: First, it distinguishes between processes of so-called 'historical' colonialism and 'data' colonialism, denoting the latter not as '*an echo or simple continuation of historic forms of territorial colonialism, but to refer to a new form of colonialism distinctive of the twenty-first century.*'[27] Second, it makes this distinction based on the type of frontierism. So, while historical colonialism apprehended new lands and bodies as frontiers and extracted them as resources, data colonialism approaches the *human mind*, and by extension, its sociality as the next frontier in order to extract data as resource.[28] The claim is that while in

the past processes of extraction targeted the physically tangible land and bodies, the new frontier of colonialism is social and epistemological, or in other words, '*life itself.*'[29] The distinction between historical colonialism and data colonialism thus contains a marked division between the colonialism of the land/body on the one hand, and of the mental, social and cultural spheres on the other. In this narrative, practices of knowledge production or epistemology — which are assumed to belong to the mental, social, and cultural spheres that data colonialism is deemed to attack — are distinguished and conceptually differentiated from colonization of the land/bodies. Even when connections between 'historical' colonialism and 'data' colonialism made, the processes themselves are understood as separable and disparate (and hence, the striving to 'connect').

By conceptualizing *data* colonialism centrally as an epistemic problem in contradistinction to colonialism in general, in this new discourse of data colonialism, practices of material exploitation — expansion, capture, conquering of vast swathes of land including water, air, minerals and space, all so-called natural resources — can be siloed off to be treated as part of 'historical colonialism.'[30] Such compartmentalization is made possible by the unspoken and pervasive assumption that lands are not epistemic beings and do not actively contribute to practices of knowledge production. With this presumption, epistemological practices are considered to be distinctive to the realm of the 'human' (and perhaps by extension, 'human' technologies — although this remains a point of contention.[31]) The 'inhuman' on the other hand, which has always included lands (in addition to a long history of gendered, racialized, and caste-oppressed bodies being deemed 'inhuman' or 'natural'[32]), is deemed incapable of producing meaning by itself, since it has been placed there

19   Nick Couldry & Ulisses A. Meijas, 'Data Colonialism: Rethinking Big Data's Relation to the Contemporary Subject' (2019) 20(4) Television and New Media 336, 337.

20   Thatcher, O' Sullivan & Mahmoudi (2016), *supra* n. 16, 991.

21   Thatcher, O' Sullivan & Mahmoudi (2016), *supra* n. 16, 995, 996. *Also*, *supra* n. 18.

22   *See* for example, Gee Imaan Semmalar, 'Quaranting as Colonialism,' (2021) Socio-Legal Studies Association Blog http://slsablog.co.uk/blog/blog-posts/quarantining-as-colonialism-an-auto-ethnographic-sociological-photo-essay/ accessed 22 June 2023. *See* also, Murali Shanmugavelan, 'Can the Global South *accommodate* Critical Caste studies or acknowledge CCS as an individual discipline?' Twitter, 28 February 2023 https://twitter.com/Muralisvelan/status/1630568719247106049 accessed 22 June 2023.

23   Ranjit Singh, 'The decolonial turn is on the road to contingency' (2021) 26(4) Information, Communication & Society 803; María Soledad Segura and Silvio Waisbord, 'Between Data Capitalism and Data Citizenship' (2019) 20(4) Television and New Media 412.

24   Thatcher, O' Sullivan & Mahmoudi (2016), *supra* n. 16, 992, 998-1000.

25   *Supra* n. 19.

26   *Supra* n. 19, 337.

27   *Ibid.*

28   Nick Couldry & Ulises A. Meijas, *The Costs of Connection: How Data is Colonizing Human Life and Appropriating it for Capitalism* (Stanford University Press 2019) 136-137.

29   Couldry & Meijas (2019), *supra* n. 28, xix, xi. *Also*, *supra* n. 19.

30   *See* here, analysis by Monika Halkort, 'On the Coloniality of Data Relations: Revisiting Data Colonialism as Research Paradigm' (DATACTIVE Blog, 2019) https://data-activism.net/2019/10/bigdatasur-on-the-coloniality-of-data-relations-revisiting-data-colonialism-as-research-paradigm-12/ accessed 12 April 2022. See also, Monika Halkort, 'Decolonizing Data Relations: On the Moral Economy of Data Sharing in Palestinian Refugee Camps' (2019) 44(3) Canadian Journal of Communication 317.

31   On this point, the debates between tech evangelists on the one hand and legal philosophers and historians on the other about whether the emergence of data-driven agency indicates the end of 'human'-driven knowledge making (eg. as theory and history) should be highlighted. *See* for instance, Chris Anderson, 'The End of Theory: The Data Deluge Makes the Scientific Method Obsolete,' Wired, 23 June 2008 https://www.wired.com/2008/06/pb-theory/ accessed 17 April 2022; Mireille Hildebrandt, *Smart Technologies and the End(s) of Law: Novel Entanglements of Law and Technology* (Edward Elgar 2016) 37-40; Mario Carpo, 'Big Data and the End of History' (2018) 3 International Journal for Digital Art History 1.

32   Sylvia Wynter, 'Unsettling the Coloniality of Being/Power/Truth/Freedom': Towards the Human, After Man, Its Overrepresentation — An Argument' (2003) 3(3) CR: The New Centennial Review 257, 270-271. *See* also Alexander G. Weheliye, *Habeas Viscus: Racialising Assemblages, Biopolitics, and Black Feminist Theories of the Human* (Duke University Press 2014); Ratna Kapur, 'The Citizen and the Migrant: Postcolonial anxieties, law, and the politics of exclusion/inclusion' (2007) 8(2) Theoretical Inquiries in Law 537; Carolyn Merchant, *The Death of Nature: Women, Ecology, and the Scientific Revolution* (Harper 1980); Nelson Maldonado-Torres, 'On the Coloniality of Human Rights' (2017) 114 Revista Crítica de Ciências Sociais 117; B. R. Ambedkar, 'Castes in India: Their Mechanism, Genesis, and Development' (1917) XLVI Indian Antiquary 3 http://www.columbia.edu/itc/mealac/pritchett/00ambedkar/txt_ambedkar_castes.html accessed 22 June 2023; Gail Omvedt, Understanding Caste: From Buddha to Ambedkar and Beyond (Orient Black Swan 2012).

at the service of the 'human.'[33] Such an assumption cocoons the anthropocentric belief that the 'human' is unique in creating meaning, while 'inhuman' lands/bodies exist merely to be marked by such human knowledge without contributing to it.[34] A presumed anthropocentric hierarchy between the 'inhuman' and the 'human' thus makes itself apparent in this analytical framework of data colonialism.

b. Racial problematics of the discourse of the Anthropocene

Parallel to this discourse of data colonialism, the discourse of the Anthropocene also presents a hierarchy of the 'human' over the 'inhuman,' whereby epistemology is neatly separated from practices of material exploitation of earthly lands, resources, and bodies. The Anthropocene thesis proposes a new eponymous geological epoch of immense instability in the Earth's climatic system and ecology that is brought about by emerging human practices of excessive production, consumption, and habitation.[35] While the Anthropocene roughly follows the Holocene epoch, which refers to the period of climactic stability beginning at the close of the last ice age about 15,000 years ago, the former's exact temporal boundaries remain contested, with the Anthropocene's time of origin attributed to anywhere from the beginning of agriculture[36] to the middle of the 20th century.[37] Given these contestations within the fields of Earth Systems Science and stratigraphy, the Anthropocene is not yet included within the official Geologic Time Scale.[38] Nevertheless, the Anthropocene thesis has sparked engagement with a range of discourses, not just in the natural sciences but also in the fields of social sciences, arts, humanities, and even law, which speak to the disruptive large-scale changes happening in the Earth's ecology and climate system today, their causes, and responses to it.[39] Simultaneously, the Anthropocene

thesis has also been critiqued for its extractive colour-blindness and its inadequate account of European and Western capitalisms and colonialisms in degrading Earth's ecology.[40]

It is true that in contrast to the epistemic focus of the narrative of data colonialism, the Anthropocenic discourse focuses on the material exploitation of the 'inhuman' Earth by 'human' activity.[41] What is missing from this narrative, however, is an account of how a discourse rooted in the dichotomy of the 'human' and the 'inhuman' epistemically contributes to the material violence that goes into establishing and maintaining this dichotomy.[42] An account of material exploitation in the Anthropocene offers very little by way of reflection upon its own practices of knowledge production. As geographer Kathryn Yusoff succinctly observes, "*In its brief tenure, the Anthropocene has metamorphosed. It has been taken up in the world, purposed, and put to work as a conceptual garb, materialist history, and cautionary tale of planetary predicament. Equally, this planetary analytic has failed to do the work to properly identify its own histories of colonial earth-writing, to name the masters of broken earths, and to redress the legacy of racialized subjects that geology leaves in its wake. It has failed to grabble with the inheritance of violent dispossession of indigenous land under the auspices of a colonial geo-logics or to address the extractive grammars of geology that labor in the instrumentation and instrumentalization of dominant colonial narratives and their subjective, often subjugating registers that are an ongoing praxis of displacement.*"[43]

At first glance, the discourses of data colonialism and that of the Anthropocene might appear quite distinct, separate, and even unrelated, since they seem to focus upon entirely different aspects of contemporary power relations. While data colonialism seeks to conceptualize the power disparities between the producers of data and the owners of data as an epistemic relationship that colonizes socio-cultural milieus and the inner life of humans, Anthropocene as a framework seeks to highlight the material exploitation of the inhuman Earth through human agents. While one deals in the realm of the epistemic, the other grapples with the sphere of materiality. Despite these differences, the underlying common element that fundamentally shapes the contours of both these discourses cannot be ignored: *This common element is the distinctiveness attributed to and which leads to the emergence of the categories of the 'material' and the 'epistemological,' the 'mind' and the 'body', and the 'human' and the 'inhuman;' and the resultant dichotomous separation of these categories.*

In centring the flattening category of the 'human' as the driving force behind the environmental destruction (i.e. destruction of the 'natural'/'inhuman'), the dominant Anthropocenic discourse has been critiqued not just for its anthropocentrism[44] but also for erasing the histories and presents of racial subjugation through the deployment of this category.[45] The understanding of the

33   It is perhaps worth remarking here that this assumption runs much older and deeper than merely the history of capitalism and could perhaps be traced to the emergence of Abrahamic theology and other pre-Abrahamic pantheist settler religious beliefs in the Holocene. *See* in this regard, Barbara Deloria, Kristen Foehner & Sam Scinta (eds.), Spirit & Reason: The Vine Deloria, Jr. Reader (Fulcrum Publishing 1999) 225, 299-303.

34   Donna Haraway, *The Haraway Reader* (Routledge 2004) 64-66.

35   Birrell & Matthews (2020), *supra* n. 15.

36   S. Kathleen Lyons et al, 'Holocene shifts in the assembly of plant and animal communities implicate human impacts' (2016) 529 Nature 80.

37   Heather Davis & Zoe Todd, 'On the importance of a date, or decolonizing the anthropocene' (2017) 16(4) An International Journal for Critical Geographies 761; Simon L. Lewis & Mark A. Maslin, *The Human Planet: How We Created the Anthropocene* (Penguin 2018); Clive Hamilton, 'Getting the Anthropocene so wrong' (20159 2(2) The Anthropocene Review 102; Kathryn Yusoff, 'The anthropocene and geographies of geopower' in Matt Coleman & John Agnew (eds.), *Handbook on the Geographies of Power* (Edward Elgar 2018).

38   Birrell & Matthews (2020), *supra* n. 15.

39   Jason W. Moore, 'The Capitalocene: Part I: On the nature and origins of our ecological crisis' (2017) The Journal of Peasant Studies 1; Paul Crutzen, 'The Geology of Mankind' (2002) 415 (6867) Nature 23; Etienne Turpin (ed.), *Architecture in the anthropocene: Encounters among design, deep time, science and philosophy* (Open Humanities 2013); Kathryn Yusoff, 'Politics of the Anthropocene: Formation of the Commons as a Geologic Process' (2018) 50(1) Antipode 255; Donna Haraway, 'Anthropocene, Capitalocene, Plantationocene, Cthulucene: Making Kin' (2015) 6 Environmental Humanities 159; Bruno Latour, *Facing Gaia: Eight lectures on the new climactic regime* (Polity 2017); Tobias Menley and Jesse Oak Taylor (eds.), Anthropocene reading: Literary history in geologic times (The State University of Pennsylvania Press 2017); Elizabeth DeLoughrey, *Allegories of the Anthropocene* (Duke University Press 2019); Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable* (Chicago University Press 2017); Elizabeth Povinelli, *Geontologies: A Requiem to Late Liberalism* (Duke University Press 2016).

40   Kathryn Yusoff, *A Billion Black Anthropocenes Or None* (University of Minnesota Press 2018); Axelle Karera, 'Blackness and the Pitfalls of Anthropocene Ethics' (2019) 7(1) Critical Philosophy of Race, Vol. 7(1) 32.

41   Povinelli (2016), *supra* n. 39; Birrell (2020), *supra* n. 15.

42   On the violence of the dichotomy of the 'human'/'inhuman', *see* Wynter (2003), *supra* n. 32; Denise Ferreira da Silva, 'Towards a Critique of the Socio-Logos of Justice: The Analytics of Raciality and the Production of Universality' (2001) 7(3) Social Identities 421.

43   Yusoff (2018), *supra* n. 40, 13-14.

44   *Supra* n. 18; Birrell (2020), *supra* n. 14.

45   Yusoff (2018), *supra* n. 40, 14; Karera (2019), *supra* n. 40; Michael Simpson, 'The Anthropocene as colonial discourse' (2020) 38(1) Environment and

'human' and its Other, the 'inhuman', which shapes the Anthropocenic account of planetary exploitation, is the same understanding that inaugurates the modern logics of race.[46] In particular, this understanding has been illuminated by Black feminist scholar Sylvia Wynter, who critiques the category of the 'human' that permeates the Western cultural archive, including within contemporary academic discourses. She explains the category of the 'human' as "*one that defines us biocentrically on the model of a natural organism, with this a priori definition serving to orient and motivate the individual and collective behaviors by means of which our contemporary Western world-system or civilization, together with its nation-state sub-units, are stably produced and reproduced. This at the same time as it ensures that we, as Western and westernized intellectuals, continue to articulate, in however radically oppositional a manner, the rules of the social order and its sanctioned theories.*"[47] Black Brazilian philosopher Denise da Silva further explores this construction of the 'human' as part of an 'onto-epistemological arsenal,' which can be grasped as the 'analytics of raciality.'[48] Such analytics of raciality should be understood as a political-symbolic toolbox of modernity (i.e. as a paradigmatic and scientific tool and not merely a cultural anomaly) that constitutes whiteness as the ethical subject 'human' and blackness as the 'racial'[49] a.k.a the 'inhuman.' This latter is determined by the 'human' and is also constitutive of it.[50] Additionally, across the fields of decolonial studies as well as Black Studies, the role that the binary of the 'human'/'inhuman' plays in enacting racial violence in colonial and neocolonial structures of power has been well-documented and theorized.[51] The point here is that the categories of 'human' and 'inhuman' themselves are quite problematic and are a symptom of the analytics of raciality that drive anthropocentrism.

Given this, the reinstating of the human/inhuman dichotomy by the Anthropocenic discourse serves not only to erase these bodies of work, but also re-entrenches colonial power relations under the guise of a 'post'-racial world.[52] As Yusoff eloquently argues, discourses of the Anthropocene — whereby lasting ecological change is engineered by historical and continuing whiteness practices whose responsibility is then offshored to humanity as a whole —

serve as a political tool for the sustenance of white supremacy within the academy and beyond.[53] And as philosopher Sara Ahmed reminds us, the politics of citation — who is made visible and who is erased, when and where, and in what ways, whose knowledges are recognised as relevant and important and whose not — plays an integral role in marking who academic and disciplinary institutions enable and disable, empower, and disempower; here, pertinently along lines of race, caste, and gender.[54,55]

c. Settler legal imaginary as the problematic dichotomy of the 'material' and the 'epistemological'

By refusing to reflect upon its own racial epistemologies in its development of a narrative of material exploitation at the planetary level, the discourse of the Anthropocene thus also serves to silo the 'material' from the 'epistemological.' In the Anthropocenic narrative, the 'inhuman' Earth is cast as an agent of material change but kept devoid of knowledge-creating agency. The discourse of the Anthropocene is accordingly deemed to belong to the realm of the 'material' and not the 'epistemological', and therefore as warranting no reflection upon the latter. Much like the discourse of data colonialism, the discourse of the Anthropocene also assumes and enacts a conceptual compartmentalization between instances of material/environmental exploitation on the one hand, and that of epistemic injustice on the other.

Considering this, the juxtaposition of the discourses of data colonialism and the Anthropocene then forces one to encounter the dichotomous separation of the 'material' and the 'epistemological' as a problem. Moreover, it highlights that this separation is not a mere metaphysical or academic point, but rather a settler political strategy that compartmentalizes, legitimates, and sustains violence in real terms against those deemed 'inhuman.' Crucially, it reveals the pervasiveness of the separation of the 'material' and the 'epis-

Planning D: Society and Space 53; Andrew Baldwin & Bruce Erickson, 'Introduction: Whiteness, coloniality, and the Anthropocene' (2020) 38(1) Environment and Planning D: Society and Space 3.

46   Weheliye (2014), *supra* n. 32; Yusoff (2018), *supra* n. 40, 14; Karera (2019), *supra* n. 40. *See* also, Davis & Todd (2017), *supra* n. 37. Conjoined with these modern logics of race is also the logics of caste which appears as a problematic "*division of labourers,*" *see*, Shanmugavelan & Abdurahman (2023), *infra* n. 104; B.R. Ambedkar, *The Annihilation of Caste* (1936) https://ccnmtl.columbia.edu/projects/mmt/ambedkar/web/readings/aoc_print_2004.pdf accessed 22 June 2023, §4.

47   Wynter (2003), *supra* n. 32, 270-271.

48   Denise Ferreira da Silva, *Toward a Global Idea of Race* (University of Minnesota Press, 2007); da Silva (2001), *supra* n. 42.

49   *Ibid. See* also, for a more accessible explanation, Carson Cole Arthur, 'Denise Ferreia da Silva. Analytics of Raciality,' Critical Legal Thinking Blog, 12 July 2020, https://criticallegalthinking.com/2020/07/12/denise-ferreira-da-silva-analytics-of-raciality/ accessed 22 June 2023.

50   *Ibid.*

51   Weheliye (2014), *supra* n. 32; Kapur (2007), *supra* n. 32; Maldonado-Torres (2017), *supra* n. 32; da Silva (2001), *supra* n. 42; Sumi Madhok, *Vernacular Rights Cultures* (Cambridge University Press 2021); Upendra Baxi, *The Future of Human Rights* (OUP 2008); José-Manuel Barreto (ed.), *Human Rights from a Third World Perspective: critique, history, and international law* (Cambridge Scholars Publishing 2013); Makau wa Mutua, 'Savages, Victims, and Saviors: The Metaphor of Human Rights (2001) 42 Harvard International Law Journal 201.

52   Yusoff (2018), *supra* n. 40; Davis & Todd (2017), *supra* n. 37.

53   Yusoff (2018), *supra* n. 40, 14.

54   Sara Ahmed, *Living a Feminist Life* (Duke University Press 2017) 150. *See* also, Sara Ahmed, 'White Men' https://feministkilljoys.com/2014/11/04/white-men/ (2014) accessed 16 April 2022. See also, Sara Ahmed, 'Making Feminist Points' https://feministkilljoys.com/2013/09/11/making-feminist-points/ (2013) accessed 16 April 2022. See also in this context, "*archival power*" understood as "*the power to define what is and what is not a serious object of research and, therefore, of mention,*" in Michel-Rolph Trouillot, *Silencing the Past: Power and the Production of History* (Beacon Press 1995) 99.

55   Given this context, my engagement with the discourse of the Anthropocene in this article may seem counterproductive, or perhaps just another instance of whitewashing. In response to this rather legitimate concern, I can only say that much like the concept of 'data,' I intend to engage with the Anthropocene discourse by problematizing it. Considering however that white Anthropocene discourses function at the material expense of research agendas driven by Black, Indigenous, Dalit and Adivasi scholarly and activist communities, merely problematizing them is not enough, and rejection and refusal perhaps more necessary political tactics. Simultaneously, as research funding gets poured into 'Anthropocene' research agendas, some form of subversion of this discourse also seems needed as part of a short-term tactic of resistance. Divesting from this discourse as well as the current forms of academia however remains the larger goal in my commitment to decolonizing. Therefore, ideally, I would refrain from engagement with the discourse of 'Anthropocene' altogether but presently, engaging with it does buy me some academic brownie points that lets me survive and make space for subversive communities within academia — which I think is a good illustration of my uneasy tricky (trickster?) positionality as a brown dwija settler South Asian-European migrant woman engaging with the white western academy, and remains open to critique. Here, by referring to my tricky positionality, I perhaps allude to the trickster consciousness rooted in Indigenous land-based pedagogy and community building. *See*, in this regard, Ionah M. Elaine Scully, 'Shapeshifting Power: Indigenous Teachings of Trickster Consciousness and Relational Accountability for Building Communities of Care' (2021) 4 The Seneca Falls Dialogues Journal 50.

temological' across multiple fields of mainstream as well as critical settler enquiry that shape the settler legal imaginary of 'decolonization' and its reckoning with widespread environmental destruction and global climate change. While this legal imaginary of 'decolonization' may be well-intentioned, its impact is vastly different. It does not contribute to the process of *decolonizing*. On the contrary — legal imaginaries borne out of these distinctions of the 'material' and the 'epistemological' are, in fact, colonizing because they consolidate and reinstate the privilege and agential power of those deemed 'human' by erasing the agencies of the 'inhuman,' which includes the land and its racialised and caste-oppressed others. This hierarchization is essentially a reinstating of the analytics of raciality[56] and relatedly, is also indicative of the racial logics of anthropocentrism. To sum up, the dichotomous separation of the 'material' and the 'epistemological' is core to the settler legal imaginary and contributes to continuing colonialism.

Uncovering this problematic of 'material'/'epistemological' separation by juxtaposing the discourses of data colonialism and Anthropocene then creates openings to subvert these discourses as well. This subversion finds its impetus in the collapsing of the categories of the 'material' and the 'epistemological' into each other. Some initial implications of this are outlined below.

First, implications of this collapse for discourses of the Anthropocene: One could argue that settler legal imaginaries which, even in their more critical iterations emerge from a material/epistemological dichotomy, are the legal imaginaries 'of' the Anthropocene. Relatedly, such settler legal imaginaries also shape and are shaped by anthropocenic colonialities that objectify the land and its racialised and caste-oppressed peoples, i.e., those deemed to be 'inhuman'. Legal theorist Anna Grear has argued how the legal imaginary 'of' the Anthropocene is interdependent with an abstract, disembodied subjectivity in the category of the 'human'.[57] I suggest that it is also this disembodied subjectivity *sans* materiality which becomes the primary producer of knowledge 'of' the Anthropocene viz., within settler cultures. By contrast, a legal imaginary 'for' the Anthropocene calls for an alternative imaginary of embodiment. And as Grear illustrates, such an alternative imaginary needs to account for the lively agencies of matter if we, particularly as settlers in Western(ized) cultures, are to work out new ways of living with the Earth.[58] As will be discussed in Section 3, Indigenous movements and theories already pave the way for this alternative legal imaginary 'for' the Anthropocene by presuming the lively agencies of the land and their role in knowledge creation. Instead of accepting at face value the Anthropocenic discourse and its anthropocentric assumptions that refuse to interrogate the material exploitation underlying its own epistemological categories,[59] an alternative legal imaginary may then be developed by problematizing the distinctiveness of the categories of the 'material' and the 'epistemological.' In collapsing these categories into each other, the agenda of active and receptive decolonizing (in contrast to the abstraction of 'decolonization') may thus be related to carving a legal imaginary 'for' the Anthropocene as well.

The second subversion attempted in this article pertains to the data colonialism discourses outlined earlier: Considering that colonialism has always been an entangled material-epistemological project of dispossession and exploitation,[60] it seems deeply amiss to make a distinction between 'historical colonialism' and 'data colonialism' or to reduce any project of colonialism specifically to 'data' colonialism in the sense of a project of the colonization of the mental and social life of humans. Unlike what the aforementioned discourses of data colonialism suggest, the development of modern colonialism as an epistemic project is hardly distinctive to the digital turn. As illustrated by a gigantic body of work across the fields of Black, Indigenous, and postcolonial studies,[61] data has been implicated in the imperial expansion of land and oceanic territories and material dispossession executed even by so-called 'historical' colonialism. Moreover, I propose that the converse holds true as well. That is, colonialism in the digital context cannot be reduced to a colonization of the 'mental', 'cultural', and 'social', of ('human') *"life itself."*[62] Rather, colonialism of our digital present(s) also operates through a colonization of land, natural resources, and bodies. In making this claim, I seek *not so much to bridge* the distinctiveness or separation between land/natural resources/bodies (the 'inhuman' material) and the milieus of mind, culture, and society (the 'human' epistemological) but rather to *collapse* these two categories into each other as the material-epistemological. I propose that it is this collapsing that will lay the foundation for decolonizing. As will be proposed in Section 4, earthy data could be a tactic to push for this decolonizing collapse, which in turn should necessarily subvert the aforementioned settler discourses of 'data' colonialism and related colonizing settler imaginaries of 'decolonization.'

3.   Decolonizing as the collapse of the material/epistemological binary: Unlearning settler land relations with Indigenous movements

Having uncovered the material/epistemological binary as a colonizing problematic of both data colonialism and Anthropocene discourses and related settler legal frameworks of 'decolonization', this section offers a reflection on what 'decolonizing', by contrast, could mean. Drawing upon Indigenous theories of knowledge, particularly the Place-Thought framework, it argues for the seamless coherence of the material-epistemic as an essential facet of decolonizing processes. By engaging with Indigenous decolonial discourses of 'Land Back', it also contextualises how an accounting for the land

---

56   *Supra* n. 48; da Silva (2001), *supra* n. 42.

57   Anna Grear, '*Legal Imaginaries and the Anthropocene: 'Of' and 'For'*' (2020) 31 Law and Critique 351, 352.

58   *Supra* n. 56, 357-58.

59   Yusoff (2018), *supra* n. 40, 14.

60   *See* for instance, Gayatri Chakravorty Spivak, 'Postcolonial theory and the specter of capital' (2014) 27(1) Cambridge Review of International Affairs 184, 192-195; Ngũgĩ wa Thiong'o, *Decolonizing the Mind: The Politics of Language in African Literature* (Heinemann Educational 1986), Achille Mbembe, *On the Postcolony* (University of California Press 2001); Partha Chatterjee, 'Agrarian Relations and Communalism in Bengal, 1926-1935' in Ranajit Guha (ed.), *Subaltern Studies I: Writings on South Asian History and Society* (Oxford University Press 1982); Edward W. Said, *Orientalism* (Vintage 1979); Bernard S. Cohn, *Colonialism and its Forms of Knowledge: The British in India* (Princeton University Press 1996); Gyan Prakash, Another Reason: Science and the Imagination of Modern India (Princeton University Press 1999).

61   *See* for instance, Simone Browne, *Dark Matters: On the Surveillance of Blackness* (Duke University Press 2015); Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code (Polity Press 2019)*; U. Kalpagam, *Rule by Numbers: Governmentality in Colonial India (Rowman & Littlefield 2014)*; Talal Asad, 'Ethnographic Representation, Statistics, and Modern Power' (1994) 61 Social Research: An International Quarterly 55; Kavita Philip, *Civilising Natures: Race Resources, and Modernity in Colonial South India (Rutgers University Press 2004*; Smith (1999), supra n. 12; Ian Pool, 'Colonialism's and postcolonialism's fellow traveller: the collection, use, and misuse of data on Indigenous people' in Tahu Kukutai & John Taylor (eds.), Indigenous Data Sovereignty: Towards an Agenda (Australian National University Press 2016).

62   *Supra* n. 28; *supra* n. 29.

(or the 'material') in the processes of knowledge production (or the 'epistemological') is key to decolonizing.

a. Decolonizing = Land Back

In order to articulate a decolonizing opening by collapsing the categories of the 'epistemological' and 'material' into each other, I draw upon Indigenous theories about knowledge that refuse to institute 'inhuman' land and knowledge production as distinct and separate conceptual categories. The impetus in Indigenous movements and scholarship to decolonize has been accompanied globally by the slogan 'Land Back' (#LandBack).[63] It is the centrality of this agenda of demanding the return of land to Indigenous peoples[64] that has propelled Indigenous scholars to insist that decolonizing is not a metaphor.[65] Decolonizing is indeed neither abstract nor a metaphor here, because it centres the very concrete demand of returning land to Indigenous communities. But what does it really mean to demand land back? Is it merely about the transfer of title and ownership of land to certain Indigenous nations? From the perspective of modern settler communities that operate within liberal regimes of property, ownership, and the State, perhaps yes. In one sense, that is what the Indigenous movements demand, because in using that language, they may be understood by the legal and political institutions of modern settler nation-States that hold that land hostage.

A deeper perusal of Indigenous political philosophy and theory, however, leads us to understand that while #LandBack must necessarily mean dismantling of settler control and the 'material' return of lands to Indigenous peoples, it must also include a 'spiritual' or 'epistemological' return to and of the lands. This understanding of #LandBack is not just *much more* than what settler legal cultures can articulate; but rather, *much else*, for the Indigenous call for #LandBack emerges in language that is incommensurable with the foundational presumptions of modern settler legal and political systems.[66] This aspect of

decolonizing, however, remains sidelined or ignored by both settler discourses on data colonialism and Anthropocene as well as legal imaginaries that try to build upon these discourses. And it is precisely this fundamental facet of decolonizing that I seek to articulate here.

b. Decolonizing = Land as sentient

That the land (which includes water bodies, oceans, the atmosphere as well as its corresponding flora and fauna alongside *terra firma*) is not only a source of material fulfilment but in the same process, also a source of knowledge has been central to Indigenous ways of living-knowing. Rowe and Tuck express it in this way: '*Land is at the crux of the relationships between Indigenous peoples and settlers in settler societies. Ongoing occupation and settler pursuits of land are often made natural, logical, or invisible in settler societies. Settler societies often regard land only in the constructs of property or natural resource. Indigenous understandings of land predate and have codeveloped alongside and in spite of settler constructions of property. For Indigenous societies, land is peoplehood, relational, cosmological, and epistemological. Land is memory, land is curriculum, land is language. "Land" also refers to water, sky, underground, sea.*'[67] This Indigenous understanding of the land — which shifts away from settler understandings of land as a resource/property and apprehends the land as a material-epistemological continuum of relationships contextualised within specific spacetimes — is additionally echoed across and supported by a vast body of Indigenous scholarship.[68]

For instance, this understanding of land has been articulated by Anishinaabe and Haudenosaunee scholar Vanessa Watts through the Indigenous Place-Thought framework. According to her, "*Place-Thought is the non-distinctive space where place and thought were never separated because they never could or can be separated. Place-Thought is based upon the premise that land is alive and thinking and that humans and non-humans derive agency through the extensions of these thoughts.*"[69] In the Place-Thought framework, the land is thus not just

63   See for example, in Turtle Island/North America, NDN Collective, 'Land Back' https://landback.org/ accessed 22 June 2023; in South Africa, Tshepo Madlingozi, 'Social Justice in a Time of Neo-Apartheid Constitutionalism: Critiquing the Anti-Black Economy of Recognition, Incorporation and Distribution' (2017) Stellenbosch Law Review 123; Tshepo Madlingozi, 'Land Back in South Africa: When, How, and For Whom?' (2022) The Funambulist https://thefunambulist.net/magazine/the-land/landback-in-south-africa-when-how-and-for-whom accessed 22 June 2023; in India, Mari Marcel Thekaekara, 'A huge land grab is threatening India's tribal people. They need global help' The Guardian, 25 February 2019 https://www.theguardian.com/commentisfree/2019/feb/25/land-grab-tribal-people-india-adivasi accessed 23 June 2022; Pavithra Narayanan, 'This land is my land: Global indigenous struggles and the Adivasi resistance in Muthanga (Kerala, India)' in Stephan Berger & Peter Alexander (eds.), *Making Sense of Mining History* (Routledge 2019). *See* also, Folúkẹ́ Adébísí, *Decolonization and Legal Knowledge* (Bristol University Press 2023); Nick Estes, *Our History Is The Future: Standing Rock versus The Dakota Access Pipeline, and the long tradition of Indigenous resistance* (Verso 2019); Nikki A. Pieratos, Sarah S. Manning & Nick Tilson, 'Land Back: A meta narrative to help indigenous people show up as movement leaders' (2021) 17(1) Leadership 47; Arthur Manuel, 'Until Canada gives Indigenous people their land back, there can never be reconciliation,' 18 January 2017, Rabble https://rabble.ca/indigenous/until-canada-gives-indigenous-people-their-land-back-there-can-never-be-reconciliation/ accessed 16 April 2022.

64   I use the terms 'Indigenous' and 'Indigenous peoples' throughout this article in contrast with the figure of the settler, *supra* n. 8.

65   Eve Tuck & K. Wayne Yang, 'Decolonization is not a metaphor' (2012) 1(1) Decolonization: Indigeneity, Education & Society 1.

66   *Supra* n. 65, 31. *See* also, Leroy Little Bear, 'Jagged Worldviews Colliding,' in Marie Battiste, Reclaiming Indigenous Voice and Vision (University of British Columbia Press 2000); Zoe S. Todd, 'An indigenous feminist's take on the ontological turn: "Ontology" is just another word for colonialism' (2016) 29 Journal of Historical Sociology 4, 19; Sandra Tomsons & Lorraine

Mayer (eds.), *Philosophy and Aboriginal Rights: Critical Dialogues* (Oxford University Press 2013); Leanne Betasamosake Simpson, 'Indigenous Resurgence and Co-resistance' (2016) 2(2) Critical Ethnic Studies 19; Aaron Mills, *Miinigowiziwin: All That Has Been Given for Living Well Together--One Vision of Anishinaabe Constitutionalism* (2019) PhD Thesis, University of Victoria 4, 194-200; Glen Sean Coulthard, *Red Skins, White Masks: Rejecting the Colonial Politics of Recognition* (University of Minnesota Press 2014).

67   Rowe & Tuck (2017), *supra* n. 8, 5.

68   *See* for instance, Sandra Styres, Celia Haig-Brown & Melissa Blimkie, 'Towards a Pedagogy of Land: The Urban Context' (2013) 36(2) Canadian Journal of Education 188; Val Napoleon, 'Thinking about Indigenous Legal Orders' in Colleen Shepard & Kirsten Anker (eds.), Dialogues on Human Rights and Legal Pluralism (Springer 2012); John Borrows, 'Outsider Education: Indigenous Law and Land-Based Learning' (2016) 33 Windsor Yearbook of Access to Justice 1; Lisa Brooks, *The Common Pot: The Recovery of Native Space in the Northeast* (University of Minnesota Press 2008); Greg Lowan, 'Exploring Place from an Aboriginal Perspective: Considerations for Outdoor and Environmental Education' (2009) 14 Canadian Journal for Environmental Education 42; Jodi A. Byrd, *The transit of empire: Indigenous critiques of colonialism* (University of Minnesota Press 2011); Eve Tuck & Marcia McKenzie, *Place in Research: Theory, Methodology, and Methods* (Routledge 2015); Shawn Wilson, *Research is Ceremony: Indigenous Research Methods* (Fernwood Publishing 2008); Vine Deloria, Jr. & Daniel R. Wildcat, *Power and Place: Indian Education in America* (Fulcrum Publishing 2001).

69   Vanessa Watts, 'Indigenous Place-Thought and Agency Amongst Humans and Non-Humans (First Woman and Sky Woman Go on a European World Tour!)' (2013) 2(1) Decolonization, Indigeneity, Education & Society 21. For parallel and related contextualised frameworks of the lands' agencies, *see*, Vine Deloria, Jr., *God Is Red: A Native View of Religion* (Fulcrum Publishing, 1972); articulation of 'grounded normativity' in Coulthard (2014), *supra* n. 66; 'arts of noticing' in Anna Tsing, *The*

a material resource but also sentient. Accordingly, it is enthused with full agency for thinking and for creating knowledge. In such a framework, meaning-making happens in communication and collaboration with the land.[70] Under Place-Thought, epistemological processes including the generation of data are then well-embedded into the specific contexts of the land(s) that enable its creation, instead of being divorced from it. This is possible only when the land is treated as a living being with full agency that inhabits not just an abundant material body, but also desires, thinks, and feels.[71]

And herein one can pinpoint what is so radical about the Place-Thought framework to our settler communities, and ultimately, what makes it decolonizing. It is the accordance of full agency to the land i.e., agency in the same sense as settler thought understands human agency. In this regard, Watts notes that the settler formulation of 'epistemology' (the sphere of 'knowledge') is separated from what is formulated as 'ontology' (the sphere of being which includes 'material relations').[72] This separation is enacted in such a way that the epistemological sphere of perception, thought, and ideas is reserved for 'humans' who are deemed to possess agency by virtue of language. Consequently, while all other actants, objects, or beings in the world may have an essence or interconnection with 'humans,' they are not granted full agency in the sense of 'human' agency and their ability to perceive the world and create knowledge is deemed to be null or limited to instinctual reactions,[73] or in other words 'inhuman.' This inauguration of the categories of the 'human' and 'inhuman' — whereby the latter is devoid of agency in knowledge creation or simply, knowing — instates a racialised hierarchy whereby the 'human' appears as the superior figure that is divorced from and commands the 'inhuman' land and its racialized and caste-oppressed peoples. In this way, the analytics of raciality outlined in Section 2 is reinforced.

By contrast, the Place-Thought approach of relating to the land shatters the analytics of raciality inherent in the assumption that the land as 'material' entity is distinct and separable from 'epistemological' processes. This is because the Place-Thought framework is rooted in the premise that the land is alive and thinking and that the 'human' and the 'inhuman' derive agency through the extensions of these thoughts.[74] Since 'human' agency is understood to be a manifes-

tation of the land's agency in this framework, the anthropocentric understanding that places the 'human' at the top of the settler-constructed agential hierarchy is dislodged. As a result, 'human' thought and epistemic processes are determined to be an extension of the land's thought and epistemic processes instead of being distinct or separable from each other. Consequently, unlike settler approaches, the constitution of 'society' under Indigenous theoretical frameworks is not limited to 'humans' and their interactions with each other while presuming the uniqueness of 'human' capacity for language, knowledge and meaning-making. Instead, it is more expansive and accounts for relationships both between 'humans' and importantly between the 'human' and the 'inhuman', which includes the land in its specific climactic, geological and biological contexts alongside those whose labour is extracted in racialized and casteized systems. In other words, social relations under the Place-Thought framework account for not just relations between 'humans', but also relations between the 'human' and the 'inhuman.'

As part of these social relations, material assaults on the land are consequently understood to be deeply intertwined not only with racialized and gendered assaults against peoples of Indigenous communities, but also with assaults against Indigenous epistemological frameworks. As an example of this, Watts points out that there is a direct connection between the increasing excavation and exploitation of Turtle Island/North American land and the disproportionately high number of Indigenous women in North America who are missing, in prison, forced into sex work, and victims of physical and sexual violence.[75] The Place-Thought framework thus resists the delinking of human agency and suffering from the land's agency and suffering.

Settler-colonialism, however, forces exactly such a delinking. Watts writes, *"The feminine and land is fundamental to our extensions as people. So, in an attempt to conquer such people, where would you start? Our land and our women, disabling communication with Place-Thought, and implementing a bounded agency where women are sub-human/non-human. Colonialism is operationalized through dismantling the essential categories of other societies."*[76] The reference to 'essential categories' here must not be confused with the deeply problematic gender essentialism so prevalent in our settler cultures. Rather, 'essential categories' here refers to what is central to Indigenous ways of knowing-being viz., the seamless coherence of the material-epistemological or, Place-Thought.

Colonial techniques of power have always entailed material assaults that have also been epistemological. A substantive body of work in Indigenous Studies, Black Studies, and decolonial studies already testifies that 'material' assaults on the land and people's bodies have always worked alongside and reinforced assaults on pre-colonial and Indigenous 'epistemological' frameworks and vice-versa.[77] Making a distinction between as well as the consequent separation or delinking of the 'material' and 'epistemological' is then a continuing colonial assault on the Place-Thought framework. And as Indigenous

Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins (Princeton University Press 2015); and Zoe S Todd, '[Thread] How are you able to listen to a place that holds you today?' Twitter, 27 June 2023 https://twitter.com/ZoeSTodd/status/1673696930080370688 accessed 29 June 2023. The Place-Thought and aforementioned related frameworks also need to be distinguished from 'posthuman,' 'transhumanist' and 'data-driven' approaches emerging in white and settler academies. This distinction can be made on several points including that unlike the latter approaches, Place-Thought accords the land full agency or sentience and invests in political movements for #LandBack.

70 Leanne Betasamosake Simpson, 'Land as Pedagogy: Nishnaabeg Intelligence and Rebellious Transformation' (2014) 3(3) Decolonization, Indigeneity, Education and Society 1; Borrows (2016), *supra* n. 68.

71 *Supra* n. 69, 23; Glenn Coulthard & Leanne Betasamosake Simpson, 'Grounded Normativity/Place-Based Solidarity' (2016) 68(2) American Quarterly 249; Deloria, Foehner & Scinta (1999), *supra* n. 33, 42-44.

72 *Supra* n. 69, 24-25.

73 As Watts illustrates, this position that apprehends the land as an abstraction persists across the political and philosophical spectrum in settler cultures, from the traditional Enlightenment approaches to the newer object-oriented ontologies rooted in Actor Network and Cyborg theories. *See supra* n. 69, 28.

74 *Supra* n. 69, 21-22.

75 *Supra* n. 69, 31. *See* also, Andrea Smith, *Conquest: Sexual Violence and the American-Indian Genocide* (Duke University Press 2015); Marisa J. Fuentes, *Dispossessed Lives: Enslaved Women, Violence, and the Archive* (University of Pennsylvania Press 2016).

76 *Supra* n. 69, 31.

77 *Supra* n. 51; Thiong'o (1986), Cohn (1996), Philip (2004), *supra* n. 60; Leanne R. Simpson, 'Anticolonial Strategies for the Recovery and Maintenance of Indigenous Knowledge' (2004) 28(3/4) American Indian Quarterly 373.

writers point out, this separation is only possible in stupors of the racial logics of anthropocentrism where the land is denied its full agency and treated merely as a resource to be used and exploited in relation to humans. Instead of being accounted for as a crucial participant in processes of knowledge-making, land under settler cultures is approached by evoking racial categories of the 'sub-human' or 'inhuman' — to be degraded, denied agency, and removed from discourses of data, knowledge, and other kinds of cultural production that are reserved for the category of the 'human.' Instead of centring discussions on how to communicate with the land and create good and respectful relations with it in practices of knowledge-making, land is reduced to an object without agency and made voiceless through its construction as an object or a resource. As part of continuing colonialism, such a resourcing of land occurs across the wide-ranging and contrarian spectrum of settler political thought. As Indigenous political science scholar Sandy Grande points out, for instance, "[B]*oth Marxists and capitalists view land and natural resources as commodities to be exploited, in the first instance, by capitalists for personal gain, and in the second by Marxists for the good of all.*"[78] Common to both these ostensibly opposing positions, however, is the presumption of land being 'inhuman' viz., an object or resource devoid of meaningful agency.

Against this background, decolonizing necessarily entails the restoration of land to its proper place within society and within material-epistemological processes of creating knowledge and meaning. This means restoring the seamless coherence of material-epistemological because when the full agency of the land is accounted for and honoured, the categorical distinction made between the 'material' and the 'epistemological' automatically collapses. Consequently, unlike the discourses of data colonialism and Anthropocene discussed in Section 2 and the legal imaginaries of 'decolonization' which unproblematically build upon them, 'decolonizing' dismantles the assumption of the categorical distinction and resulting separation between the 'material' and the 'epistemological', between the land and knowledge creation processes.

c. Relevance of #LandBack to unlearning settler legal imaginaries in Europe

It is with this context that we could now approach again the relevance of #LandBack movements for our settler data cultures. Building on the Place-Thought framework, I propose that while the seamless coherence of the material-epistemological remains incommensurable with settler ways of knowledge production (and by extension, data production),[79] it is central to the call for #LandBack. This calls for an unsettling that is decolonizing. The relevance of #LandBack as decolonizing also cannot be limited to other parts of the world, but must necessarily entail a reorganization of land relations and dismantling of settler relations of othering, objectification and resourcing of the 'inhuman' land and its racialized and caste-oppressed peoples within Europe.[80]

#LandBack should then of course be understood as a call for the necessary material return of their lands to Indigenous peoples, but also entails much else: It calls for restoring lands everywhere to their rightful place as sentient material-epistemological actors with full agency, and to cultivate our relations with lands from this orientation. This insight has particular relevance for settler communities within Europe, since it calls us to undo our settler relationship of othering, objectification and resourcing of the land. It is in this sense that decolonizing is not a metaphor; moreover, it is incommensurable with settler modes of relating.[81] Because what is at stake in decolonizing is not only a change in title of the property relation to the land, and Indigenous ownership of the land. While Indigenous ownership of land is indeed crucial, what must also be accounted for is the implication of this change in title for Indigenous communities. For such a transfer of land titles ruptures the basic fabric of settler property relations, and beyond that, the relationship of othering, objectification, and resourcing of lands. And such rupturing is fundamental for decolonizing. *#Landback implies re-establishing a relationship to the land that is not just material but also spiritual, and hence, epistemological.*

#LandBack is a call that demands that settlers rethink their relationship to the land as a natural resource and recognize its agency; this would imply establishing a respectful relationship that entails the obligations of reciprocity, communication, and consent from the land. In the European context, a collapsing of the 'material' and 'epistemological' into each other would entail not only developing our capacities over several generations to listen to and honour the land and but also giving the stewardship of the land to Indigenous, Dalit, and Black communities that honour and understand the criticality of consent and communication with the land and its links to liberation struggles of marginalized peoples. In England, for example, the work of Black-led grassroots collectives like Land in Our Names,[82] which link the inhumanities of the slave trade with contemporary English land ownership patterns, and demand #LandBack for Black peoples provides important openings for this decolonizing collapse. These openings are additionally being carved through films by artists like Dan Guthrie and Ufuoma Essi that reflect upon Black peoples' material-spiritual relations with English land.[83]

Decolonizing thus necessarily means working from within the Place-Thought framework. This entails rethinking our easy dismissal of land as a natural resource that operates in the background of our processes of knowledge production and bringing land to the foreground of our epistemic discourses.[84] Decolonizing then means a humbling: It entails the dismantling of anthropocentrism that operates through

78   Sandy Grande, *Red Pedagogy: Native American Social and Political Thought* (Rowman & Littlefield 2004) 27. Given this, colonialism should be understood as not just a symptom of capitalism. Rather capitalism and the State should be understood as technologies of colonialism, developed over time to further colonial projects. The analytics of race is then an invention of modernity, whereby the modernity may be traced back to 15th century when the white European colonial imaginary goes global. *See* in this regard, da Silva (2007), *supra* n. 48. *See* also, Tuck & Yang (2012), *supra* n. 65, 4.
79   *Supra* n. 12.
80   For an elaboration on how the 'inhuman' is constructed in contemporary Europe in relation to its peoples, *see* Fatima El-Tayeb, *European Others:*

Queering Ethnicity in Postnational Europe (University of Minnesota Press 2011).
81   Tuck & Yang (2012), *supra* n. 65, 16-19.
82   Land in Our Names, 'Reconnecting Black Communities with Land in Britain' https://landinournames.community/ accessed 22 June 2023.
83   Dan Guthrie, 'black strangers' (2022) https://danguthrie.net/black-strangers accessed 23 June 2022; Ufuoma Essi, 'Pastoral Malaise' (2022) https://ufuomaessi.com/Pastoral-Malaise accessed 23 June 2022; Ufuoma Essi, 'From Where We Land' (2021) https://ufuomaessi.com/From-Where-We-Land accessed 23 June 2022.
84   Mishuana Goeman, 'From Place to Territories and Back Again: Centering Storied Land in the discussion of Indigenous Nation-building' (2008) 1(1) International Journal of Critical Indigenous Studies 23-25; Mathew Wildcat, Mandee McDonald, Stephanie Irlbacher-Fox, & Glen Coulthard, 'Learning from the Land: Indigenous land-based pedagogy and decolonization' (2014) 3(3) Decolonization: Indigeneity, Education & Society I, II-III.

the analytics of raciality of the 'human'/'inhuman' hierarchy[85] by acknowledging and respecting the lands, and by extension the Earth — as fully-fledged material-epistemological actors. This needs to manifest not just in words, but in our embodied actions. As Anishinaabe scholar Leanne Simpson states, "*We cannot just think, write or imagine our way to a decolonized future. Answers on how to re-build and how to resurge are therefore derived from a web of consensual relationships that is infused with movement (kinetic) through lived experience and embodiment. Intellectual knowledge is not enough on its own. Neither is spiritual knowledge or emotional knowledge. All kinds of knowledge are important and necessary in a communal and emergent balance.*"[86] In this sense, decolonizing is material-epistemological: It entails not only admitting our problematic settler relational status quo with the land — with the 'inhuman' — e.g., in an introductory paragraph, an inclusive footnote or even Indigenous land acknowledgments at the beginning of academic speeches and presentations. Much more crucially, decolonizing entails giving land back. It means transfer of land titles to Indigenous, Black, and Dalit communities that maintain material-spiritual relationships to the land, *and* working to change our relationship to the land and its peoples — moving from binaries of the 'human'/'inhuman' towards an ecology of more-than-human relationships.[87] Consequently, it pushes us to (but is not limited to) radically rethink the thrust of our established as well as emerging discourses. It means engaging seriously with Black and Indigenous scholarship not to score points on Diversity, Equity, and Inclusion, but because these literatures have unsettling insights to offer.[88]

d. Decolonizing as an unsettling legal imaginary for the Anthropocene that honours consent and communication with the land

In according lands their place as material-epistemic actors with full agencies, what decolonizing (as opposed to its easier abstraction, 'decolonization') reveals is an obligation of reciprocity, communication and consent in relation with lands and their 'inhuman' dwellers.[89] This way of relating with the land remains illegible to and incommensurable with settler ways of knowing and being with the land, which has fundamentally been a relationship of resourcing.[90] A resourcing

relationship consists of imposing human will on the land, which can entail extraction and abuse, instead of communicating with it, and seeking consent to work with it.

By contrast, decolonizing transforms this resourcing relationship via the Place-Thought framework by urging us to learn from the land, which entails processes of creating knowledges with the land, instead of extracting from it.[91] This necessarily requires an obligation to communicate with the land and seek consent for help with our material-epistemological processes. It entails an obligation of maintaining good relations with the land.[92] Under the decolonizing Place-Thought framework, issues of communication, consent and good relations with the land are thus centred within discourses of knowledge production. However, addressing these questions seems far-fetched or even nonsensical from the perspective of settler discourses that refuse to fully acknowledge sentience and agencies of the land. This creation of sense and nonsense is thus also intertwined with settler-colonial techniques of power. Watts outlines how continuing colonialism constantly disrupts and blocks Indigenous communication and obligations to other beings of creation.[93] When settler thought bestows perception as a gift upon the 'human' mind to the exclusion of 'inhuman' others like a stone or rivers, it performs 'human' as a category that is elevated outside or above the 'natural' or the 'inhuman' world. This echoes the analytics of raciality that presents whiteness as the 'human.'[94] It then not only propagates exploitation structured by race and caste but also enables unaccountable environmental destruction by construing all racialized, caste-oppressed and land bodies as 'inhuman.' As a consequence of this inhumanity, any obligation to communicate or obtain consent for the labour of these bodies is also removed. The distinction between the 'material' and 'epistemological' enacted by erasing the agency of the land to think, desire, contemplate thus enacts a colonial technique of power by disrupting processes of communication and consent in relation to the land. As illustrated in section 2, this tendency of separation continues across both the discourses of data colonialism and the Anthropocene.

4.   Earthy Data for Decolonizing Governance for the Anthropocene

If decolonizing means a change of orientation in our land relations such that lands are understood as active participants in knowledge creation, it must necessarily change our approach to data. This is because data is distinguished from the 'material' and functions as an 'epistemological' claim in settler cultures. However, if decolonizing necessarily entails collapsing the categories of 'epistemological' and 'material' into each other, data must also emerge as a seamless material-epistemological formulation in the unsettling legal imaginary 'for' the Anthropocene. In other words, by accounting for lands as active participants in knowledge creation, decolonizing processes must entail challenging the concept of data handed down to us by settler legal cultures 'of' the Anthropocene. In doing so, developing processes for building reciprocal relations through communication and consent with the land and others deemed 'inhuman' (per the

85   *Supra* n. 48; da Silva (2001), *supra* n. 41.

86   Simpson (2014), *supra* n. 70, 16.

87   For some recent examples of scholarship that account for more-than-human politics while centring Black and Dalit peoples *see*, Ankit Kawade, 'Human and Animal: 'Destitution' and 'Divinisation' in the Discourse and Practice of Caste' in Ambika Aiyadurai, Arka Chattopadhy *et al* (eds.), *Ecological Entanglements: Affect, Embodiment, and Ethics of Care* (Orient Blackswan 2023); Alexander Weheliye, '"Feenin": Posthuman Voices in Contemporary Black Popular Music' (2022) 20(2) Social Text 21.

88   On the politics of citation generally, *see supra* n. 54. On how citational politics are deployed to systematically decentre and erase Indigenous literatures from disciplinary agenda formations in settler academia, *see* Todd (2016), *supra* n. 66; Eve Tuck, 'A turn to where we already were? Settler inquiry, indigenous philosophy, and the ontological turn' (2014) Paper presented to the Annual Meeting of the American Educational Research Association, Philadelphia; Jerry Lee Rosiek, Jimmy Snyder & Scott L. Pratt, 'The New Materialisms & Indigenous Theories of Non-Human Agency: Making the Case for Respectful Anti-Colonial Engagement' (2020) 26(3-4) Qualitative Inquiry 331.

89   Janelle Baker, 'Research as Reciprocity: Northern Cree Community-Based and Community-Engaged Research on Wild Food Contamination in Alberta's Oil Sands Region' (2016) 2(1) Engaging with Indigenous Communities 109; Robin Kimmerer, 'Restoration and Reciprocity: The Contributions of Traditional Ecological Knowledge' in Dave Egan, Evan E. Hjerpe & Jesse Abrams (eds.), Human Dimensions of Ecological Restoration (Island Press 2011).

90   Donna Haraway, 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective' (1988) 14(3) Feminist Studies 575.

91   Wildcat, McDonald, Irlbacher-Fox, & Coulthard (2014), *supra* n. 84; Simpson (2014), *supra* n. 70; Borrows (2016), *supra* n. 68.

92   Maggie Walter & Michelle Suina, 'Indigenous data, Indigenous methodologies, and Indigenous data sovereignty' (2019) 22(3) International Journal of Social Research Methodology 233; *supra* n. 69, 32-33.

93   *Supra* n. 69, 23-24.

94   *Supra* n. 48; da Silva (2001), *supra* n. 42.

logics of racialized labour produced by the analytics of raciality[95] as well as the casteized 'division of labourers'[96]) must be centred.

What does this challenge look like, particularly for data governance discourses? I propose that this challenge could be manifested by deploying 'earthy data' or in approaching data as earthy. Here, earthy data should be understood not so much as a conceptual framing that seeks to replace settler formulations of 'data' with yet another neologism. Rather, earthy data or approaching data as earthy should be understood as a tactical response for decolonizing that refuses to understand 'data' as an unproblematic object/subject of governance. Unlike a novel conceptual framing or 'solution' to the problem posed, such a tactical response offers *"no absolute escape from ideology, no newly "appropriate" technologies or quick cultural fixes."*[97] Rather, I propose that as a tactical response, earthy data should be approached as *"a bag of tools that affords us contingent tactics for continual, careful, collective, and always partial reinscriptions of a cultural–technical situation in which we all find ourselves."*[98] This decolonizing tactic intends to be politically responsive and roots itself in the land while approaching 'data' as dynamic material-epistemological relationships that are negotiated between fully agential or sentient lands and human participants that continuously constitute themselves and each other via these relationships.

Rooted as it is in the Place-Thought framework, this proposed tactical response of data as earthy runs in parallel and owes a lot to understandings of data within Indigenous Data Sovereignty (IDS) discourses.[99] While IDS discourses are oriented towards issues of the governance of Indigenous data and given the decades of community work, research, and conversations poured into them, are also much more developed, nuanced, and specific to particular Indigenous cultures, the tactic of earthy data proposed here is somewhat different in its orientation and directed as a critique and challenge towards settler modes of data governance. The intention of this proposal for earthy data is not so much to comment on matters of Indigenous data governance (which is certainly beyond my expertise) but rather to bring these decolonizing literatures on Indigenous approaches to data and knowledge relations into critical conversation with settler scholarship around data colonialism and the Anthropocene. This serves to illustrate and operationalize the potency of Indigenous approaches in disrupting the coloniality of settler frameworks of 'data' and its governance.

What do the tactics of earthy data concretely entail? To attempt a comprehensive answer to this as an individual would be a folly, and I leave much space open for continuing reflections, refractions, and conversations with and from grassroots communities, legal, policy and academic communities, and other readers of this article. Nevertheless, in this section, I outline some initial thoughts about

the implications of earthy data tactics in the form of two broad provocations and some related open questions for further discussion and development, which could be crucial for decolonizing 'for' the Anthropocene and unlearning settler legal imaginaries in the context of 'data' and the 'digital.'

a. Earthy data as a tactic to account for data production processes within/as 'data'

First, I propose that a tactic of earthy data necessarily draws our attention to the processes of the *production* of data. This is because instead of understanding data as a readily available, transparent or unproblematic resource, earthy data tactics approach data as a set of contingent relationships between the lively agencies that constitute the land and its peoples. In refusing to apprehend data as a dead epistemological artefact or representation of reality, earthy data tactics emphasise the material-epistemological relationships that go into the making of data as a core aspect of data governance. In doing so, they account for the processes of production of data as central issues for data governance.

One instance of such a decolonizing approach to data governance may be outlined through the figure of the microchip. Today, the microchip is indispensable for all data-driven technologies, including smartphones, which produce data at unprecedented scales. Yet under the settler understanding of data, the microchip and the smartphone is treated as a background to digital data but not as core to data itself. This is because the settler formulation of 'data' largely understands it as an ephemeral and transparent 'epistemological' object, rather than as a set of problematic material-epistemological relations. As queer-feminist philosopher Sara Ahmed has illustrated, what is deemed to be the background for an object is never just a coincidence, innocent or natural; but rather serves as a political tactic to obscure the power relations (e.g. of labour) that are necessary for the emergence of said object.[100] Similarly, the backgrounding of hardware technologies like the microchip in the settler formulation of data is not an innocent move and obscures the exploitative land and labour relations implicit in data. The distinction of the 'material' and the 'epistemological', whereby digital hardware is understood as the 'materiality' of data but not as data itself (which is rather deemed to be an 'epistemological' resource) is a deeply problematic symptom of settler culture and needs to be recognized as such. Tactics of earthy data, by contrast, foreground what is backgrounded in this settler formulation of data. As feminist science studies scholar Donna Haraway has remarked, *"Out of the chip you can in fact untangle the entire planet, on which the subjects and objects are sedimented."*[101]

Foregrounding the power relations implicated in the production of data as an 'epistemological' object is then key to deploying earthy data as a decolonizing tactic. *This can be done by foregrounding the land and labour relations that go into the production of data, portraying them as inherent to the concept of data itself.* From her research in Silicon Valley, media scholar Jennifer Gabrys illustrates how a complex set of mutations occurs to transform land-based silicon into microchips that constitute the essential hardware for the large-scale production of digital data. At the same time, this set of mutations demands extensive extraction of silicon along with vast inputs of

95   *Supra* n. 48.

96   Ambedkar (1936), *supra* n. 46; Shanmugavelan & Abdurahman (2023), *infra* n. 104.

97   This understanding of tactical responsiveness is borrowed from Kavita Philip, Lilly Irani, & Paul Dourish, 'Postcolonial Computing: A Tactical Survey' (2012) 37(1) Science, Technology & Human Values 3.

98   *Ibid.*

99   *See* for example, Maggie Walter, Tahu Kukutai et al (eds)., *Indigenous Data Sovereignty and Policy* (Routledge 2021); Tahu Kukutai & John Taylor, *Indigenous Data Sovereignty: Towards an Agenda* (ANU Press 2016); Raymond Lovett, Vanessa Lee et al, 'Good Data Practices for Indigenous Data Sovereignty and Governance' in Angela Daly, S Kate Devitt et al, *Good Data* (Institute of Network Cultures 2019).

100 Sara Ahmed, *Queer Phenomenology: Orientations, Objects, Others* (Duke University Press 2006) 29-36.

101 Jennifer Gabrys, *Digital Rubbish: A Natural History of Electronics* (The University of Michigan Press 2011) 20.

chemicals, metals, plastics and energy that result in the contamination of the land. Accounting for this implies recognizing that the processes of contamination of the land are inherent to the large-scale production of data in the digital Earth today. Gabrys notes, "*It would be impossible to separate the zeros and ones of information from the firing of these electrical pulses and the processed silicon through which they course. A miniature device that performs seemingly immaterial operations, the chip, in fact, requires a wealth of material inputs.*"[102] In other words, data understood as material-epistemological relations or as earthy data, is inseparable from the microchip and the exploitative land relations implicated in it.

Simultaneously, the exploitation of the land for data production is intimately intertwined with the racialized and caste-oppressive exploitation of human labour as well,[103] and this cannot be ignored in a tactics of earthy data. The work of critical caste and technology and critical race and technology scholars J. Khadijah Abdurahman and Murali Shanmugavelan for instance, throws important light on this by highlighting how the knowledges and labour of Dalit, Indigenous/Adivasi and Oromo peoples are consistently appropriated and simultaneously erased by settler and Savarna narratives of technological production.[104]

These formulations also echo Indigenous scholars and activists who have long exposed how settler research methodologies work to erase the contributions and labours of Indigenous peoples in creating knowledges that are eventually attributed to settlers.[105] Parallel to this, media studies scholar Lisa Nakamura has mapped how even though Indigenous peoples' labour has been indispensable to the creation of data technologies, they have been erased from accounts of technological knowledge production.[106] Gabrys further describes how the manufacturing of the microchip demands the conversion of silicon from the land into a conducting or insulating medium via a process of chemical purification.[107] The processed silicon is then transformed into a silicon ingot and sliced into thin wafers, the surface of which is further altered through a chemical and material procedure of insulating and coating, masking, etching, adding layers, doping, creating contacts, and adding metal, until the silicon wafer is rendered into the desired, usable form for industrial use. Gabrys maps how these processes are largely performed by the devalued labour of racialised migrant women.[108] These women are offered little protection from the chemicals deployed and discarded in these processes. Such chemi-

cals are toxic in nature and have resulted in health hazards for both the migrant women who process it as well as the contamination of underground water tables and other parts of the soil.[109] Under the analytics of raciality that grants the category of the 'human' the sole agency to produce knowledge, the intertwined lives of lands and migrant women are thus devalued as 'inhuman' — unconscientiously available to be exploited as a passive resource but never recognised as an active participant in data production. This anthropocentric presumption, which denies land its full agency in knowledge creation, is the same technique of oppressive power through which the agencies of caste-oppressed and racialized peoples are exploited and simultaneously erased in data production.

By centring processes of data production within the definition of data, a decolonizing tactic of earthy data works to account for and redress the exploitative relationships that have become so indispensable to the operation of the digital Earth today. These exploitative relationships are engineered through the casteized 'division of labourers'[110] as well as the analytics of raciality that instates an anthropocentric hierarchy between 'inhuman' land and its racialized peoples, on the one hand, and white-coded bodies ensconced within the category of the 'human', on the other.[111] In accounting for these problematic relationships of data production, earthy data serves as a provocation for not only articulating the full agency of this 'inhuman' in processes of data production, but also creates openings to recognize how these agencies are erased to maintain the status quo of white supremacist and caste-ordered colonialisms.

As a decolonizing tactic, earthy data works by apprehending the relationship between those deemed 'human' and the 'inhuman' land as material-epistemological; but it does not stop there. While important, doing this alone would only reinforce the colonial distinction and resulting separation made between the 'inhuman' and the 'human', the 'material' and 'epistemological', as is characteristic of the Anthropocene and data colonialism discourses. By contrast, earthy data as a tactical response challenges the very basis of these categories — the 'human' and the 'inhuman', the 'material' and the 'epistemological'. In doing so, it forces us to simultaneously confront the role that the analytics of raciality and casteized division of labourers play in the construction of the categories of the 'human' and the 'inhuman'. As a result, it highlights that much like the 'inhuman' land, racialized and caste-oppressed peoples are also treated as 'mere matter' and denied the agency to create knowledge in the legal imaginary 'of' the Anthropocene. Decolonizing data governance 'for' the Anthropocene would then require us to account for not just the agencies of the land but also that of caste-oppressed and racialized peoples in data production, as these both go hand in hand. For earthy data creates an opening for understanding data as material-epistemic relationships in which the land as well as other caste-oppressed and racialized peoples of settler cultures are equal participants to white-coded and caste-privileged bodies. And when participation is equal and full material-epistemic agencies of the former are recog-

102 *Supra* n. 101, 24.

103 *Infra* n. 104; Cohn (1996), *supra* n. 60; Murali Shanmugavelan, 'The Case for Critical Caste and Technology Studies,' Data and Society, 14 September 2022 https://points.datasociety.net/the-case-for-critical-caste-and-technology-studies-b987dcf20c8d accessed 22 June 2023; Murali Shanmugavelan, 'Critical Caste and Technology Studies' (2022) https://www.criticalcastetechstudies.net/ accessed 22 June 2023; Ethical Trading Initiative, 'Base Code Guidance: Caste in Global Supply Chains' (2019) https://www.ethicaltrade.org/sites/default/files/shared_resources/ETI%20Base%20Code%20guidance%2C%20caste%20in%20global%20supply%20chains.pdf accessed 13 June 2023.

104 Murali Shanmugavelan & J. Khadijah Abdurahman, 'May the Myth of Castelessness Die,' (2023) 19 Logic(s) https://logicmag.io/supa-dupa-skies/may-the-myth-of-castelessness-die/ accessed 22 June 2023.

105 *See* for example, Smith (1999), supra n. 12; supra n. 89; Abhay Xaxa, 'I Am Not Your Data,' The Shared Mirror, Roundtable India http://roundtableindia.co.in/lit-blogs/?p=1943 accessed 22 June 2023.

106 Lisa Nakamura, 'Indigenous Circuits', Computer History Museum Blog, 02 January 2014 https://computerhistory.org/blog/indigenous-circuits/ accessed 22 June 2023.

107 *Supra* n. 101, 24.

108 *Supra* n. 101, 26-27.

109 *Supra* n. 101, 1-2, 20-24.

110 Ambedkar (1936), *supra* n. 46; Ethical Trading Initiative (2019), *supra* n. 103; Murali Shanmugavelan, 'Critical Caste and Technology Studies: Caste and (International) Development' (2022) https://www.ethicaltrade.org/sites/default/files/shared_resources/ETI%20Base%20Code%20guidance%2C%20caste%20in%20global%20supply%20chains.pdf accessed 22 June 2023.

111 Yusoff (2018), *supra* n. 40, 14; Wynter (2003), *supra* n. 32; da Silva (2007), *supra* n. 48.

nized, neither land nor the lives of caste-oppressed or racialized working-class migrant women may be readily treated as an available material resource only to be erased from epistemic narratives of data. Decolonizing data governance for the Anthropocene demands legal imaginaries which displace this resource-full presumption of the land and its racialized and caste-oppressed peoples and instead, inaugurates a relationship of agential recognition and respect. Paths to such legal imaginaries may be found through the tactics of earthy data.

My intention is that the tactics of earthy data proposed here pose significant challenges to even those modes of settler data governance which are deemed progressive or critical, yet tend to focus on either (a) harms that arise due to problematic deployment of data (e.g., issues of privacy, data protection, and even protection from data-driven algorithmic technologies);[112] or (b) modalities of data distribution (e.g., question of competition, monopolies, walled gardens, and equal access to data).[113] With these tactics, I do not seek to negate these important areas of concern. Rather, my intention is to issue a challenge to also step sideways and open space for new kinds of political and discursive engagements that problematize settler understandings of knowledge and of data. This transversal movement highlights how both the aforementioned (a) and (b) points of foci in settler discourses of data governance — while ostensibly vastly different in scope — presume the settler understanding of data to be an object that is available for use and deployment.

Under settler discourses of data and its governance, the more-than-human relationships that underlie the production of such data are erased and excluded from the concept of data itself. As illustrated, this can be attributed to the separation of the 'material' and 'epistemological' in settler discourses whereby data and its governance are deemed to be matters of 'epistemological' concern. Consequently, the processes of data production as well as the relationships that underlie such production can be neatly divorced from the concept of data and its governance can be relegated to the 'material' realm. Even the more critical settler discourses that operate from this position — e.g., 'data colonialism' — fail to question this settler conceptualization of data: While such critical discourses may recognize the problematic construction of data as a resource, their rootedness in the separation of 'material' and 'epistemological' categories means that they nevertheless construct (a) data as an epistemological artefact or resource and (b) data colonialism as colonialism that affects epistemological processes as opposed to historical colonialism that affects material processes.[114] As a result, the settler concept of data itself remains unquestioned in these critiques of data colonialism, which tend to focus on the distribution and access to data as a resource. Consequently, in this discourse, data colonialism is largely reduced to the privatization of digital infrastructures, increasing digital enclosures,

and the emergence of tech monopolies that are likened to empires.[115] In failing to account for the material-epistemological relationships of data that are negotiated between lively agencies of the land and its peoples, these discourses eliminate power relations implicated in data *production* from the definition of data and from the scope of data relations. In doing so, the experiences of exploitation and power relations witnessed in processes of data production are also removed from the ambit of data governance.

By contrast, a decolonizing tactic of earthy data then realizes processes of data production, including the role of the land, as an inherent part of data. Under this tactic, the extractive relationships that are inaugurated between various 'inhuman' and 'human' actors for data production are then seen as core to 'data' governance discourse. In other words, accounting for lands as key lively agents in knowledge production as per the Indigenous Place-Thought framework enables us to centre within data governance discourses not only the power relations that operate in the deployment, use, and distribution of data. Importantly, it also pushes us to address the relationships of extraction that shape the emergence or creation of 'data' (and not just the distribution and access to data) at a fundamental level. Decolonizing thus necessarily means the reconfiguration of data from an epistemological resource-object to a material-epistemological relationship that accounts fully for agencies of those deemed 'inhuman,' including that of the land and its racialized and caste-oppressed peoples.

Everything I have outlined so far is only an initial provocation for settler communities to problematize and interrogate their conception of data by tactically approaching data as *earthy*. Much still needs to be done to create these unsettling movements and sharper legal imaginaries for decolonizing. But this is work which needs to be done together. Perhaps some of the open questions offered below can be of assistance for working towards it.

- What kinds of power relations and relations of exploitation are highlighted through the tactics of earthy data which are obscured by the settler formulation of data? In what concrete ways do labour and land relations become core to data governance concerns when earthy data tactics are deployed? What kinds of case studies may be undertaken here?

- In what ways can processes to centre communication and consent with the land be developed to address these exploitative power relations foregrounded by earthy data tactics? Centrally, what processes, movements, and resistances are needed to push the transfer of the stewardship of lands to Indigenous, Black, and Dalit communities that have traditionally recognised and respected the agencies of the land in knowledge and technological creation?

- How does the scope of settler data governance change and in which ways is it unsettled when the power relations inherent in the production of data are foregrounded by approaching data as earthy? How does data governance law and policy need to respond to the exploitative land and labour relations foregrounded by the tactics of earthy data?

112 *See* for instance, *supra* n. 2. *See* also, Hildebrandt (2016), *supra* n. 31; Javier Sánchez-Monedero, Lina Dencik & Lilian Edwards, 'What does it mean to 'solve' the problem of discrimination in hiring? Social, technical, and legal perspectives from the UK on automated hiring systems' (2020) FAT* '20: Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency 458; Linnet Taylor, *'What is data justice? The case for connecting digital rights and freedoms globally'* (2017) 4(2) Big Data & Society 1.

113 *See* for instance, *supra* n. 1. *See* also, Marion Fourcade & Kieran Healey, 'Seeing Like a Market' (2017) 15(1) Socio-Economic Review 9; Jathan Sadowski, 'When data is capital: Datafication, accumulation, and extraction' (2019) 6(1) Big Data & Society 1; Marc Andrejevic, 'Privacy, Exploitation, and the Digital Enclosure' (2009) 1(4) Amsterdam Law Forum 47.

114 Couldry & Meijas (2019), *supra* n. 16, 337, 341; Couldry & Meijas (2019), *supra* n. 18, xi, 84-86, 69.

115 Couldry & Meijas (2019), *supra* n. 18, 43-54; Thatcher, O' Sullivan & Mahmoudi (2016), *supra* n. 16, 993-997.

b. Earthy data as a tactic to dismantle disciplinary and intradisciplinary boundaries of knowledge production complicit in the settler formulation of 'data'

My second provocation regarding earthy data directs itself squarely to settler academic communities and our modes of knowledge production, ordering and disciplining as well as our imagination of the legal form. For in collapsing the categories of 'material' and 'epistemological' into each other, decolonizing demands not only accounting for the lively agencies of lands and their peoples in knowledge production. Rather in doing so, earthy data tactics necessarily push a reworking of the disciplinary and intradisciplinary boundaries that fracture legal matters along the lines of the 'epistemological' and the 'material' — for instance, issues of data governance, privacy, data protection, AI governance, intellectual property law as relating to the 'epistemological' on the one hand, and environmental and labour law as relating to the 'material' on the other. The coherence of the material-epistemological under a decolonizing earthy data tactic 'for' the Anthropocene demands a reassessment of the politics of the disciplinary and intradisciplinary compartmentalization of the seamless continuity of power relations experienced in the digital Earth. In this regard, decolonizing and postcolonial critiques in other areas of law can also provide much guiding light. For instance, TWAIL scholarship on international environmental law has illustrated that confining environmental issues to an intradisciplinary specialization reinforces the anthropocentric separation of the 'human' and the land.[116] This, in turn, incorporates the land into the analytics of raciality such that the 'inhuman' land becomes a resource in the service of the 'human.' A similar presumption reigns in the settler field of data governance when 'inhuman' agencies in data production processes are erased. Only by accounting for how such compartmentalization enacted along the lines of the 'material' and 'epistemological' enables the operation of extractive power relations may we even begin to take the first step towards decolonizing for the Anthropocene.

Such unsettling of disciplinary and intradisciplinary boundaries also displaces the nomenclature of *data* colonialism as a distinctive type or stage of colonialism that is operationalized through the epistemological artefact of data. Instead, this unsettling enables a telling of the continuing histories of the colonization of lands and their peoples as part of a larger and longer planetary history. This planetary picture is a history of colonialism as a long-running material-epistemological process of domination of living lands and their racialized and caste-oppressed peoples[117] that culminates in the extractive rationalities of the digital Earth in the present. The agenda of decolonizing then cannot be compartmentalized nor even distinctive to any one area of law without impacting other areas of governance. Neither can data governance nor any area of law, academic research or even the university

be decolonized piecemeal, without also decolonizing at social[118] and planetary levels. Given this, the illusion that the terminology of '*data* colonialism' is even legitimate must be thwarted under the decolonizing tactics of earthy data — because the very conceptualisation of data colonialism as targeting social, mental, and epistemological human relationships in contradistinction to the material relations of the land and racialized and caste-oppressed peoples implied in 'historical colonialism', is revealed to be disingenuous.

The unsettling of settler disciplinary and intradisciplinary boundaries flows directly from earthy data's impetus to collapse the categories of the 'epistemological' and the 'material', the 'human' and the 'inhuman.' It poses an existential threat to existing settler academic practice and demands a divestment from how disciplines and fields of pedagogy and research have developed. It further requires a reimagination of academic and legal areas that are currently separated along binaries of the material/epistemological. For instance, to move towards decolonizing for the Anthropocene, whether data governance law/information law, land/property law, environmental law, and labour law should be formulated as distinct areas of legal pedagogy and research needs to be questioned. The decolonizing tactics of earthy data — namely the collapsing of the categories of 'material' and 'epistemological' — would imply that 'data' governance amongst other areas described above ceases to be a distinctive field.

Such examination of the lines along which expertise is produced in settler legal cultures is necessary, because without it, communication and consent with those deemed 'inhuman' under settler cultures cannot be consistently centred nor respected. For example, if developing good land relations demands putting an end to the exploitation of land and racialized/caste-oppressed labour, pursuing this only through labour law and land/property redistribution will not be enough when the impetus of settler data governance demands the incessant production of data in ways that are rooted in violence against land and the exploitation of racialized and caste-oppressed peoples. As a result, the decolonizing movement towards earthy data also calls for an unsettling of disciplinary and intradisciplinary boundaries 'for' the Anthropocene. This will necessarily entail a radical reimagination of what we understand by 'law', and the legal form as well as how to situate an understanding of the land as sentient and our material-epistemological relations with the land while unsettling our current approaches to the law. Pioneering work by Indigenous legal scholars serves as an indispensable guiding light in this regard.[119] While how such reimagination and engagement could be concretely

---

116   Usha Natarajan & Kishan Khoday, 'Locating Nature: Making and Unmaking International Law' 27(3) Leiden Journal of International Law 573; Luis Eslava, Usha Natarajan & Rose Parfitt, '(Post)Revolutionary Interlinkages: Labour, Environment, and Accumulation' (2013) 4(1) Transnational Legal Theory 108; Usha Natarajan, TWAIL and the Environment: The State of Nature, the Nature of the State, and the Arab Spring' (2012) 14 Oregon Review of International Law 177. Outside of TWAIL, *see* also, J.B. Ruhl, 'Thinking of Environmental Law as a Complex Adaptive System: How to Clean Up the Environment by Making a Mess of Environmental Law' (1997) 34(4) Houston Law Review 933; Anna Grear, 'Ecological Publics Imagining Epistemic Openness' in Victor Faessel, Richard Falk & Michael Curtin (eds.), *On Public Imagination* (Routledge 2019); Andreas Philippopoulos-Mihalopoulos (ed.), *Law and Ecology: New Environmental Foundations* (CRC Press 2011).

117   *Supra* n. 103; *supra* n. 48.

118   Tshepo Madlingozi, 'Forging Decoloniality from Below and the imperative of Forging Communities of Critical Consciousness' (2023) Reimagining Global Justice within and through the University Summer School, Central European University; Tshepo Madlingozi, 'Legal Academics and Progressive Politics in South Africa: Moving Beyond the Ivory Tower' in Karin van Marle (ed.), *PULP Fictions No. 2* (Pretoria University Law Press 2006); Tshepo Madlingozi, 'Confronting and Dismantling Institutional Racism in the Faculty of Law, University of Pretoria' in Hans Visser and Christof Heyns (eds.), *Transformation and the Faculty of Law, University of Pretoria* (Pretoria University Law Press 2007).

119   See for example, C.F. Black, *The Land is the Source of the Law: A Dialogic Encounter with Indigenous Jurisprudence* (Routledge 2011); Val Napoleon, *Ayook: Gitksan Legal Order, Law, and Legal Theory*, PhD Thesis, (University of Victoria 2009) https://dspace.library.uvic.ca/bitstream/handle/1828/1392/napoleon%20dissertation%20April%2026-09.pdf?sequence=1 accessed 23 September 2022; Aaron Mills, Miinigowiziwin: All That Has Been Given for Living Well Together—One Vision of Anishinaabe Constitutionalism (2019) PhD Thesis, University of Victoria http://hdl.handle.net/1828/10985 accessed 4 October 2022.

realized is outside the scope of this article, perhaps some of the open questions offered below could offer guidance for further discussion and research in this regard:

- How does a decolonizing earthy data tactic of collapsing the categories of 'material' and 'epistemological' into each other challenge the disciplinary and intradisciplinary boundaries of/in 'law' and other disciplines?

- What is the material impact or demand of such a challenge — not only in the terms of papers we propose or research agendas we develop, but importantly, also in terms of institutional change within universities and beyond? Both at personal and institutional levels, what processes does settler academia need to push for to dismantle our privilege, decentre ourselves and cede space and material resources to Indigenous, Black and Dalit communities, which fundamentally challenge the distinction of the material, epistemological and/or the spiritual?

- What foundational concepts of modern Western law are challenged by the collapse of the categories of the 'material' and 'epistemological' and what consequence does it have for developing decolonizing legal imaginaries for the Anthropocene? How can consent and communication with the land through the stewardship of Indigenous, Black and Dalit communities which have traditionally recognized and respected the agencies of the land in the creation of knowledges be centred in such legal imaginaries?

- What openings does an earthy data tactic offer for reimagining pedagogy for decolonizing for the Anthropocene?

5.   Conclusion

Tactics of earthy data outlined in this article build upon Indigenous theories of knowledge, data, and land and locate themselves as an essential aspect of the demand for decolonizing. Given the ongoing climate crisis, widespread environmental destruction, and the complicity of the digital economy in all of it, such decolonizing is not only important but urgent. At the same time, decolonizing demands a new legal imaginary 'for' the Anthropocene that is rooted in the coherence of the material-epistemic rather than in the distinctiveness and separation of 'material' and 'epistemological' spheres, which is characteristic of settler cultures. I have argued that using earthy data as a tactical response allows a decolonizing legal imaginary 'for' the Anthropocene to emerge by challenging the settler imaginary of data. This rethinking needs to take place not just in the field of data governance, but also more broadly, by reimagining the organization of disciplinary and legal knowledges via inter- and intradisciplinary boundaries that reinforce the colonial separation of the 'material' and the 'epistemological' as well as confronting the violence that the maintenance of these categories enacts at the social and planetary levels. This has been done by arguing that in contrast to the settler approach to data as an 'epistemic' object, earthy data tactics offer tools to approach data as material-epistemic relationships involving both more-than-human agencies that need to be fully accounted for by centring processes of data production in governance discourses.

In offering these tactics of earthy data, my intention has been to create movements toward a paradigm shift: As a tactic, earthy data pushes for a radical rethinking of the framing of data governance as a mechanism for balancing the interests of the 'human' individual against the socio-economic, whereby data appears as a transparent or unproblematic connecting concept. Such transparency speaks to the deep pervasiveness of settler understandings of data in our imagination and material practices. In contrast to the settler conceptualisations of data, earthy data tactics muddy the settled categories of the 'human/individual,' 'social' and 'economic', 'material' and 'epistemological,' while bringing the entangled more-than-human agencies of the land to the forefront in ways that account for racialized and casteized labours. This unsettling of categorical distinctions — I have proposed — is indispensable to the work of decolonizing.[120] In this sense, merely assimilating the 'environmental' (or even human 'diversity' and 'racial inclusion') into the concerns of data governance decolonizes neither data nor governance. That is because the very conceptual delimitation of *these* categories serves a colonial mechanics that obscures the exploitative power relations within data production in settler cultures in general and within contemporary digital data supply chains in particular. Refocusing on the land (here, the earthy), which is irreducible to any one of these categories (including the 'environmental'), creates an opening for unsettling these categorical distinctions in ways that may begin the process of decolonizing 'for' the Anthropocene.

120   This is not to say all blurring of distinctions is decolonizing or that the making of any distinctions is colonial. The word 'this' in this sentence should be emphasised when reading.