

Ontology Otherwise: Enclosure, Performativity and the Un-common-ing of AI, Data and Land

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Abstract

How do we promote human capacity for caring and evolving carefully together as we face ecological shifts in habitat and social relations? Using de la Cadena and Blaser's idea of *uncommon(ing)* and Judith Butler's challenge to the *common*, this paper considers conceptual forms of enclosure and foreclosure that stifle responses to uncertainty. It argues that ideas and identities are being foreclosed by the semantic connections and grammars of digital interaction and AI, much as commons enclose land. Regarding the physical and virtual as parallel spaces of appropriation under capitalist-colonialist cultures, the paper suggests that, if we are to care well, the data processing that feeds computation and artificial intelligence needs reconsideration at its core, much as land use does. If machine "learning" were based on a performative model, rather than something fundamentally categorical, it might avoid the obvious foreclosures of applying static models to changing contexts. Using this analysis, the paper explores data, land, access and inclusion to consider climate care and a transition from infrastructures to world-changing. In the process, the paper examines the linguistic infrastructures that inhibit change.

Keywords

enclosure; foreclosure; data; grammar; commons; reflexivity; AI.

1. Introduction

This is a highly reflexive moment – one when transformation is discernibly all around us, asking us to respond creatively and with care to multiple converging challenges, such as climate crisis and political polarisation. To recognize that things will be otherwise is to consider how they were otherwise and might be otherwise again (Star 1990) – the “designed, therefore designable” state of the world (Light 2011a). There is a growing literature that speaks with this reflexivity in mind: reflecting on periods when the structure of societies changed according to the resources of the season (Graeber and Wengrow 2021); when debts were annulled regularly to free debtors from the long-term consequences of resource failure (Hudson 2018) and when most of the world's population had access to land for “self-provisioning” (Angus 2023, 9). All make the point that

resources were organised differently and could be again. A sense of the transformations that have taken place raises the possibility for further change and supports the democratization of futures (e.g., Light 2021a). It also helps reveal what forecloses them. This paper uses a consideration of two resources in transformation – data and land – to explore how grammars act as infrastructure to configure our societies. It then asks how to make the world-changing that we need as a planet.

The premise here is that lessons may be learnt from comparing the functioning of historical enclosure (which took land-based resources from the commoner) with current trends in computing. The paper offers a discussion of contemporary enclosures and foreclosures based on how language structures futures. The performativity of language has been demonstrated by speech act theorists from Austin (1955) to Butler (1990; 1997). Here it is used to consider the encoding of everyday life in networked computing, where the turn to producing “intelligence” through machine “learning” (at least metaphorically, e.g., Murray-Rust et al. 2022), involves language structures that foreclose meaning-making and adaptability.

Core to the argument presented is the spatial idea of *enclosure*, which is to fence off or barricade and thus deny access, and its temporally-related cousin, *foreclosure*. To foreclose is to deny opportunities before they arise. To explore this as a current dynamic, the paper first argues for regarding the enclosure of the physical and virtual as parallel. The point is then made that the structure of language impacts the futures available to us at a time of rapid change, playing through both the arenas of data and land. Developments in computing are analyzed against performativity theory, drawing on philosopher Judith Butler (e.g., 1990; 2001) and ideas of (un)commoning that resist modern forms of enclosure (de la Cadena and Blaser 2018). This enables the final sections to look afresh at how we construct and care for our worlds and how we plan for resilience in the face of converging crises.

1.1 Alternatives and Why We Need Them

The power to transform ourselves culturally is critical at this juncture. Human-made crises have destabilised the planet, requiring both ecological and social action to unite in managing disasters and precluding worse. Part of this interrelated predicament is political; the world’s politics are largely hands-off and laissez-faire in what has become known as neo-liberalism. Technology companies have exploited this unregulated, financialized culture to expand annual revenues to bigger than most countries (Babic et al. 2018), making themselves too large to regulate. At this scale, they are configuring planetary behaviours across networks through code (e.g., Lessig 1999). They exist entangled in extractive systems of production/consumption: required to exploit resources for profit (Bakan 2005), even to replace managers who attempt to adopt different values (e.g., van Gansbeke 2021) in aggression that is hardwired into the legal status of *public limited company*.

Klein points out that, before the neoliberal era, emissions growth linked to fossil fuels had been slowing from 4.5% in the 1960s to 1% in the 1990s, but that changed (2014, 80). Neo-liberalism, as a pinnacle of late capitalist thinking where the market determines what happens and politics is used to protect markets, has affected material and cultural norms for the worse. It promotes “possessive individualism”, removing “the restraining powers of society” (McDonald et al. 2017, 4) and resulting in “more individualistic and self-centred self-identity where

previously societal discourses were based on social cohesion and solidarity” (*ibid.*, 11). In other words, the very way that societies understand themselves has been altered to the detriment of the collective sensibility needed to attend to climate care and a flourishing global habitat.

This system is not easily resisted; remedies must lie outside the current norms. De Sousa Santos argues that political resistance needs to be premised upon epistemological resistance, meaning “the critical task ahead cannot be limited to generating alternatives, indeed, it requires an alternative thinking about alternatives” (2007, 63) and Strathern suggests that understandings of “relation” shape what relations are possible and possibly understood (2018).

These authors suggest that making lasting change means rethinking structures of thought as well as (and as a precursor to) action on material culture. This is what informs this paper, which examines the underlying language that shapes how resourcing decisions are made. Taking this into a discussion of how resources are controlled is fundamental; new worlds will need changed access to basic needs. To this end, the paper links the need for transformation in access to resources with an analysis of language and performativity to see what work is being done by linguistic structures.

1.2 Enclosure

The word *enclosure* is evoked in laws as early as the 13th century Commons Act¹ in England and Wales to remove access to land from serfs² who depended on it for food and barter, as part of a trend seeing resources flow towards an elite (e.g., Angus 2023). Underpinned by Roman property law, with its stress on ownership of land and chattels (including women and slaves), the pattern over the centuries has been widespread expropriation of ordinary people and the creation of hungry workforces obliged to labour for others to survive. In this system, people are resources themselves, ready for exploitation.

Where England led with enclosures, other regions followed. Enclosures took livelihoods from local people by denying access to formerly-shared spaces. Across the world, the process continues.

Far from being a one-off event during early capitalism, enclosure remains fundamental to capitalist globalization and growth, and is broadly cemented by a logic of exclusion, domination, and control over places and people. (Zoob Carter 2023, *n.p.*)

This exclusion is notably occurring in areas populated by Indigenous communities (Ghosh 2021).

For many industrialised nations, recent land appropriation involves transferring common urban areas managed by municipalities (for the benefit of citizens) into the control of commercial interests, benefitting only shareholders. Governments use the rhetoric of *the common* to appropriate and enclose resources, becoming “global public goods” that governments see as their job to control (Blaser and de la Cadena, 2018). By contrast, “commons” nowadays are largely reclaimed land such that local people can again access ground/soil/land/place without overlord ownership. (“Commoning” is a political act and/or means of better husbandry to redress the passage towards private and enclosed space.)

In a move that takes appropriation into digital space, the technology industry is now creating new virtual and synthetic contexts for exploitation. The next section concerns how this manifests and forecloses meaning.

2. Virtual Resources for Exploitation

The arrival of digital infrastructure has introduced further potential for exploitation, allowing appropriation beyond land and materials and raising issues of possession and care in digital contexts. The digital is a fusion of resources that can be claimed, both material (servers, keyboards, carbon footprint) and immaterial (the work performed on a Google Doc creating a shared space of productivity, the “spaces” of virtual reality, artificial intelligence [AI] with its cognitive architectures for learning). There are ambiguous aspects to the digital, such as how real its virtual spaces are; digital infrastructure is rich in metaphor (see Murray-Rust et al. 2022; Nerlich 2024). Nonetheless, it is through claims of ownership that virtual resources truly become manifest.

The politics of software, digital infrastructure and data management extend ownership to entities in this ambiguous zone, with the output of ones and zeroes becoming resources to possess alongside the material forms which hold them. Sharing, limitless reproduction and ensuing patterns of rights control have been discussed with reference to the boundlessness of software and media (e.g., Benkler 2006; Aigreen 2011), which, for a while, eluded management but is now emphatically tied down. The latest dynamic – with similar opportunities for control and appropriation, but different impacts – is within the field of data and its manipulation (Mejias 2023).

Couldry and Mejias (2019) liken the outcome of the current blossoming of data manipulation to colonialism: mining data involves (a) appropriation of resources; (b) formation of new social orders; (c) extreme concentration of wealth; and (d) creation of ideologies to justify appropriative practices. Mbembe also sees colonisation coming from recent digital developments and a kinship between contemporary forms of extraction in the “age of the algorithm” and older forms of domination. These turn us “all into artefacts” (Mbembe 2020, *n.p.*), though simultaneously displacing us, our “muscle” no longer needed (*ibid.*).

This latest appropriation relies on what Parisi calls “algorithms of cognitive and affective capital” (2015). As Cheney-Lippold (2017) shows, these algorithms amass a digital shadow for everyone: our actions articulating our identity, our choices made within the frame of systems determining what is allowed to us, both in terms of accessing resources and of performing as a resource. Automated decision-making might seem like a levelling of opportunity, offering fairness free of human intervention, yet it removes judgment and discretion in the moment, leaving pattern-matching as a basis for decisions and, with it, a failure to handle exceptions. Further, it is well recognised these patterns are derived from data affected by human prejudice and that the patterns of prejudice intensify as classifications play out in societies. Networked data use has evolved fast and created a situation where little local control is available over smart houses, cities or systems of management. In the hands of global business, data, infrastructure, code and design processes unite to deliver discrimination and polarization (Chun 2024), inequality and segmentation (Eubanks 2018; Noble 2018) and the massive use of natural resources for trivial or detrimental design (from Papanek 1971 to de Vries 2023; Smith 2023). This dependence on machines for management alters human-world relations and how we treat each other in ways that are significant, yet hard to detect as we become habituated: “becoming normalized, like the [relations] before it. [...] The bigger and slicker it gets, the more it erases alternatives” (Light 2022, 36).

Suchman (2023) asks how AI came to be figured uncontroversially as a thing. She suggests that AI is “a sign invested with social, political and economic capital and with performative effects that serve the interests of those with stakes in the field” (*ibid.*, 3). Much current concern with AI comes not with the prospect of an out-of-control maverick machine running amok but because power over us exists in monopoly companies’ data centralisation with unprecedented control (Whittaker 2021). Abandoning ethical concerns in competing for market advantage, AI is expected to maximise profit for its makers using centuries of creative material and terabytes of user-generated content from social media scraped to represent the nature of the world. This has, in itself, been described as theft (e.g., McDermott 2023). A legal challenge to stop the use of copyrighted work in training AI programmes (Samuelson 2023) reveals the extent of the USA’s significant copyright measures, themselves a form of enclosure, now in competition with the next wave of digital exploitation practices. Just as land before it, digital resources are subject to the logics of enclosure, appropriation and extraction. A key difference is that control has moved from rulers and landowners to corporations: recent advances are not so much due to fundamental scientific breakthrough techniques, but “the product of significantly concentrated data and computer resources that reside in the hands of a few large tech corporations” (Whittaker 2021, 51).

In the next sections, the paper explores the language used in data processing, focusing on the point where machine learning handles data. Loosely modelled on the human brain, neural nets underpin advanced machine learning. An individual node in the neural net might be connected to several nodes in the layer beneath it, from which it receives data, and several nodes in the layer above it, to which it sends data. These architectures process training examples (usually hand-labelled in advance) to learn.

An object recognition system, for instance, might be fed thousands of labeled images of cars, houses, coffee cups, and so on, and it would find visual patterns in the images that consistently correlate with particular labels. (Hardesty 2017, *n.p.*)

To understand the impact of this design, let us consider what language is capable of.

3. The Nature of Performativity

The nature of language is to be performative (e.g., Butler 1990; 1997). Language can enact change through utterance, as “speech acts” and in social constructions that come from repeated speech acts, such as gender (and other aspects of identity that are created through repetition in society).

Concerned with gender as a social construct, Butler suggests that the body becomes its gender only “through a series of acts which are renewed, revised, and consolidated through time” (1990, 274) so that gender “is real only to the extent that it is performed” (*ibid.*, 278). This is the basis of a theory of performativity³ that dismisses essentialist readings of identity (i.e., definitional accounts) to propose that it is through social rehearsal that entities gain their characteristics (i.e., performative emerging). This is a reading of society that has the potential

for greater fluidity, such that social reproduction might become social transformation (Butler 2001). To embrace performativity as a theoretical position is to move from defining what *is* to what *we do* and the practices we adopt. It changes how we speak but also, they argue, it changes what is possible and what can become (Butler 2001).

Such an account of social formations is not at odds with the political analysis, above, of how identity is inscribed by automatic decision-making systems and the like. In fact, the very existence of so much literature on the impact of using data and algorithms in society supports a view of identity as emergent and emerging. However, the argument can also be considered at the machine-level to explore how the systems of AI and their like handle data, or, indeed, what we consider data to be. Although much is *not* known about how individual IT systems learn and then learn about their learning (and it is in the interests of the producers to keep even staff in relative ignorance of these matters to ensure they cannot share trade secrets), the basis of relations in machine learning is ontologies of terms. Although these relations can be adapted through learning, the syntax remains constant. And it is not a performative syntax. It is based on classification.

This point about performative vs definitional systems is perhaps best illustrated through examples. One comes from Indigenous scholars' explanation about how First Nation languages work; the other is taken from an earlier paper exploring a performative view of human-computer relations. They are given here as a prelude to exploring the foreclosing nature of digital realms.

3.1 Verbs vs Nouns

Not all worlds use nouns the way that European languages do and one person may speak in different ways depending on the language they are speaking (Athanasopoulos 2017). Law and Mol note languages have different emphases and academic conversations that restrict themselves to using tools available in English may "become limited and parochial" (2020, 264). Indigenous linguist Dan Moonhawk Alford explains the differences between First Nation languages (across the "Americas" before conquest), which are verb-dominated, and Indo-European languages, such as Spanish, Portuguese and English, which hang on nouns. Alford comments that, through these distinctions, he can both articulate and reveal a more fluid encounter with the world (1994, *n.p.*), one that precedes, but suggests, process philosophy⁴. Talking of another's reaction to the verb-led nature of First Nation languages, Alford relates:

[This man] was astounded that such a verby worldview is actually possible, much less alive and well in America 500 years after the invasion of Europeans, after 500 years of cognitive terrorism aimed at breaking up that worldview and substituting another, more nouny one. But just as indigenous Americans could never have dreamed how people could live in primary noun-orientation while surrounded by the everchanging flux, it is still a continuing puzzle to Europeans and their descendants after 500 years that "God" [...] here is a verb instead of a noun. [And] one of the toughest [intellectual] tasks indigenous people ever had to face was explaining to Europeans who their non-noun God was[...] they, and nature, and reality were all verbs. (Alford 2009, 294)

This tension appears again in botanist Kimmerer's account of learning the language of her ancestors after being trained as a Western scientist. Of the latter, she says: "it is a language of objects. The language scientists speak, however precise, is based on a profound error in grammar" (Kimmerer 2013, 48). She explains that:

[a] bay is a noun only if water is *dead*. When *bay* is a noun, it is defined by humans, trapped between its shores and contained by the word. But the verb *wiikwegamaa* – to *be* a bay – releases the water from its bondage and lets it live. (*ibid.*, 55)

This highlights the distinction between categorical and performative in language. She offers a grammar of animacy as a regenerative force, asking if grammar might be a tool of global transformation.

Indigenous scholar Zoe Todd points to the appropriation of Indigenous worldviews (2016), talking of European and North American academics having their "ontological moments", while taking credit for ancestral ways of thinking they have done nothing to protect or care for (*ibid.*). Both theories of the performative and readings from Indigenous and Global South scholars have informed the unease about computational structures described here and Alford is cited to demonstrate that the dominant complacency about noun-led worldviews overlooks hundreds of years of contrary practice. Even the notion of ontology to describe the different systems is inadequate, since ontology pertains to how things *are*, not a fluid state like "doing". What this example shows is that a noun-based structure is not inevitable.

3.2 Performativity and Language

To take this on, it is possible to explore how nouns condition and create data, which is not to look at implementation of systems but the *design of the underpinning technology*. In 2011, I used Butler's performative understanding of relations to look at the ontologies of (what was then) the computational "Semantic Web", i.e., linkages providing the basis on which machine learning was making its connections. I described how ontologies linked concepts in limiting ways – making realities by taking aspects of existing relations and reproducing them in systems so that their characteristics impact possibilities and foreclose alternatives. An ontology "reveals the potential for codification in semantic systems", I wrote, and "a single linked-up ontology for/of everything [...] begs the question as to the desirability of fixing meaning through defining relations so comprehensively" (Light 2011b, 435). I quoted a team making ontologies who commented that much computational ontology work risked "congealing knowledge" (Buckner et al. 2010). This resonated with Butler's "discursive norms which have congealed into givens" (Salih and Butler 2004, 303).

I gave the example of defining "woman":

If "woman" appears linked by relations such as "mother to", "daughter to", "sister to", "wife to", we will understand "woman" to be a family-orientated, possibly passive entity. If, in addition, we see "woman" linked as "employed by", "owns", "runs" and "manages", we see a more agentic profile. [...] this could mean the difference between "employed by" and "owner of" in some future woman's working life. (Light 2011b, 435-436)

Returning to this analysis, it is apparent that even the modified language proposed relates to a series of static states, despite additions to address agency. The passage concerns nouns: not *doing* words, but concepts caught in *being* words. The agency stays in a linear classificatory paradigm.

The role of the ontology in computer science, as distinct from within philosophy and metaphysics, is to eliminate ambiguity and indicate relations⁵ – it generates relations between states. Logics have to be made “fuzzy” (Cintula et al. 2023), they do not emerge from fuzziness in the way that negotiated meanings across human groups and cultures do. Deep learning allows relations to slide and transform, but it cannot rewire its syntax to move beyond ontologies. The data that is processed produces a noun-y world – a culture of states, not movements – because the design of neural nets and semantic webs is to define and pursue categories and these underlie the large language models and so on of generative AI – another angle on the “thingness” of which Suchman speaks (2023).

In a contemporary analysis, Crawford and Paglen (*n.d.*) offer this loaded commentary:

You open up a database of pictures used to train artificial intelligence systems. [...] A photograph of a woman smiling in a bikini is labeled a “slattern, slut, slovenly woman, trollop”. A young man drinking beer is categorized as an “alcoholic, alky, dipsomaniac, boozier, lush, soaker, souse”. A child wearing sunglasses is classified as a “failure, loser, non-starter, unsuccessful person”. You’re looking at the “person” category in a dataset called ImageNet, one of the most widely used training sets for machine learning. (Crawford and Paglen *n.d.*, *n.p.*)

Note that all the tags they describe are nouns. In their own description, we see a “young man drinking beer”: a more performative reading (though “being, growing, presenting as masculine and drinking beer” would be more so). What the machine takes from this image is a list of types: “alcoholic, alky, dipsomaniac, boozier, lush, soaker, souse”, like the car, house and cup in Hardesty’s list above. Classifying this way involves identifying an action as a *characteristic* of a person. The work is definitional beyond its sociological consequences; it is predicated on turning a fluid being into a static type that can be coded.

Crawford and Paglen ask a series of critical questions of how data processing systems are trained, including “What sorts of politics are at work when pictures are paired with labels, and what are the implications when they are used to train technical systems?” (*ibid.*). We might expand their remit to questions of process. Do training systems need to hinge on categorisation? Might there be a system that it is not only dynamic in linking (i.e., that “learns”), but allows people to emerge as more than the sum of their actions? Might we be attended by living archives that open possibilities to us, rather than be subjected to pattern-matching that compares us to norms and determines our worth accordingly? The answer may be antithetical to the functioning of ontologies but it is interesting to think with. Nouns may be the ultimate enclosure device.

4. The Language of Alternatives

The non-performative grammar performed by machines forecloses our possibilities; nouns enclose even before the scraping of data and selling it back to us parallels land-based enclosure

of old. Taken together, the possibilities for digital transformation are great, but also disempowering for individuals and communities. Just as commoners became labourers, so labourers are becoming shadows of their own data, described with greater classification and fewer exceptions, to be managed by new overlords: centralised and networked digital models of human behaviour owned by a few corporations. Where might we see a parallel play of enclosure and resistance by way of inspiration for alternatives?

4.1 Land Commons and Their Boundaries

Exploring alternatives to private and state-owned land, economist Elinor Ostrom worked to prove that *commons* can function as a form of resource held in common. This becomes possible if the right structures are established, such as membership and adherence to rules, countering the pessimism (e.g., Hardin 1968) that saw only the potential for the ruin of the resources involved (see Mildemberger 2019). Ostrom's eight principles of commoning (Ostrom 1991) suggest that, in a limitless community, it is challenging to set modes of engagement; part of what resists overuse are clear group boundaries and recognized member sanctions (*ibid.*). Commons may therefore be a frame for any resources that are finite. (Looking at the planet, we might see a series of commons – sky, oceans, land – being badly managed through poor regulation.)

But looking up from individual instances of land-as-commons reveals challenges, since Ostrom's successful commons structure is also an enclosure, managing boundaries of care and legislating which people are sufficiently careful to be good commoners. While sharing may be a social, environmental and economic good (Light and Miskelly 2015; 2019), something as “ostensibly egalitarian as sharing” (Coote et al. 2010, 4) can exclude groups: because of how much discretionary time they have, where they come from, where they live, their health, observing that some neighbourhoods seem “awash with activities that enrich and strengthen social connections” (*ibid.*) and others not.

Sharing land in areas with little history of desolation (i.e., land is fertile, weather clement and water clean) may be individually successful, but the distribution of different soils suggests some limits to this template. Poorer areas are notably full of former industrial brown-field sites. These areas are not unused, despite the dangers, for instance Latva-Somppi et al. (2021) describe toxins in shared land in Sweden. If commons are reproduced across the world, land will include heavily damaged, vulnerable or polluted places, such as the South Sea Island Tuvalu, which is shrinking and increasingly salty (Redmayne 2021). Commons structures can reproduce patterns of existing hardship and intensify it, privileging those sharing resources in places that are not damaged by colonialist pasts and presents.

Butler suggests that when we seek a common bond, something similar happens – where an appeal to “socially instituted relations”, formed over time and giving us a sense of the “common” works “only by excluding those lives that do not fit the norm” (Butler 2001, 3). The norm binds us together, but also creates unity “through a strategy of exclusion”. Both the *common* and the *commons* can be too fixed for a rapidly evolving century and its inhabitants.

4.2 Commoning

If even attempts to resist enclosure can also enclose, it is interesting to consider how movements towards commons have responded. “To speak of the commons as if it were a natural resource is misleading at best and dangerous at worst – the commons is an activity... It might be better to keep the word as a verb, an activity, rather than as a noun” said Linebaugh, who adopted the gerund (2008, 279). Fournier (2013) suggests a specific politics:

Commoning is [...] about the production of ourselves as common subjects, in a material sense (having access to land and resources), in a knowledge sense (having the means and capacity to reproduce ourselves from natural resources), and in a relational sense. (Fournier 2013)

Relatedly, Huybrechts and colleagues’ place-based *reworlding* (2022) expresses fluid relations, as well as looking to establish them. The *uncommons* (de la Cadena and Blaser 2018) stresses diversity in a world where many worlds flourish. Thus, de la Cadena discusses “uncommoning” (2015):

[A] commons constantly emerging from the uncommons as grounds for political negotiation of what the interest in common – and thus the commons – would be. (de la Cadena 2015, *n.p.*)

Here Butler’s concerns for diversity and Linebaugh’s concerns for activity meet in a framing of care that resists stasis or exclusion. In other words, it has mattered to a generation of scholars that commoning, and, now, uncommoning actively join descriptive vocabularies. Commons are too tidy and too constraining as nouns.

5. Beyond Solutions

Might the technology industry likewise find fluid and partial accommodations that shift away from inhibiting structures (and the inhibition of structure)? It is difficult to imagine this happening. The technology industry prides itself on promoting technology to solve problems, which is an absolutist position. It anticipates solving climate change and the ecological injustices that see the Global South contributing least and suffering most, to be achieved with tools that are not yet invented (Gates 2021). Living with crises is a predicament that one can manage, endure or deny, but not solve (Martenson 2012). So, this technocratic position is hubristic on two dimensions: not only does it presume that a suitable technology will be invented, but it assumes solving is possible. Further, these narratives of future technologies have a commercial rationale, creating research and funding agendas alongside other functions: “Technological futurity can be theorized as a discourse of technological anticipation” (Kinsley 2011) where the “politics of anticipation of technical futures is the codification of the possible” (*ibid.*, 231). There is power in well-promoted visions.

Yet, between pursuit of giant schemes and focus on individual psyches and protectionist structures is a collective tier that could act on our predicament. Performativity applied to interdependence gives an alternative to neoliberalism, caught in age-old practices, such as *buen vivir* (e.g., Gudynas 2011) or *sentipensar*, after Orlando Fals-Borda and described by Escobar (2016). A million small experiments could support the ongoing deconstruction of (technocratic) norms.

5.1 Thinking and Doing Alternatives

A fluid world is one in which we can move readily from current understandings of ourselves to ones where we evolve and are able to see our potential to evolve. This takes a degree of self-awareness and reflection. In other words, the reflexivity of our times needs to become incorporated in personal and collective reflection on change, opening us to changing together, even if we are not sure what we will become or where we need to go. (This is distinct from being flexible workers or consumers, reinforcing the uncertainty and precariousness that capitalism and colonialism have created.) To leave exclusionary enclosures behind takes mindfulness, collaboration, subversion and critical mass. Action must create buffer zones in which change can root, as well as create the change needed (Light 2022) amid “an ethics of exclusion, which pays attention to the entities, practices, and ways of being that are foreclosed when other entangled realities are materialized” (Giraud 2019, 2).

In this context, automation is useless because we need to change the parameters of behaviour radically and keep changing them and automated systems do not break into unprecedented cultural modes, even if they are liable to unexpected behaviour. In response, we can ask what happens if we tune ourselves with active speech to recognize when categorization is merely a necessary communicative device and when it is liable to turn tools, data, systems and ways of being into something overly definitive, and thus reductive.

A key term in this rethinking and remaking might be *infrastructuring*, the verb developed from the word *infrastructure*. *Infrastructure* is an example of a noun representing *deadness*, as Kimmerer might say, since it is the aggregation of systems that are already installed: “Infrastructure does not grow *de novo*; it wrestles with the inertia of the installed base and inherits strengths and limitations from that base” (Star and Ruhleder 1996, 113). Infrastructure is influential in its rigidity, even as new systems are added, such as the layers of AI now appearing. *Infrastructuring* (e.g., Le Dantec and DiSalvo 2013), by contrast, could stay agile, rather than build new edifices. Infrastructuring holds a relationship with reversibility that infrastructure loses. In this way, infrastructuring highlights socio-technical process, even as it moves towards fixture.

Within digital computing, a process view already informs the programming of digital systems and how they are designed to achieve tasks sequentially. However, a process view rarely reaches to emerging socio-technical practices and never extends to changes in culture, even when these changes are precipitated by changes in technology. Changes in culture are regarded an externality. A performative view does away with that luxury.

5.2 Beyond Ontology

Playfulness is never singly faceted; it extends where it will: a means of understanding ourselves in/of plural shifting worlds. I proposed that technology could be made less divisive with “design which is spaceful, oblique and occasionally mischievous” (Light 2011b, 431). However, the growth of globally coordinated networks has given the lie to this. Openness, obliqueness and mischief are needed, but not enough. If we are interested in cultural change, we need to resist global financial and technological infrastructures that are self-correcting and swallow initiatives to change them. This takes the self-awareness of the tactician, not just in playing, but responding to the play of others.

Ontological pluralism offers the spectre of fragmented responses in a way that plays directly into the neoliberal worldview, splintering people in a “hall of ontological mirrors” (Light 2021b). It is a basis for the collective individualism that undermines solidarity. Yet, something in the idea of differential is right: unevenly created crises are also unevenly experienced. Repair is due. Difference should be acknowledged, yet without fracturing. Where categorising, as the basis of ontology, offers fragments, performing is at once both more modest and more fluid. Butler (2001) suggests that we can resignify the basic categories of ontology only to the extent that we submit ourselves to “cultural translation”. Speaking of “yielding our most fundamental categories” to a rupture encountering what is unknown, or not yet known, they say that cultural translation:

is not between two languages that stay self-enclosed, distinct, unified. But rather, translation will compel each language to change in order to apprehend the other, and this apprehension, at the limit of what is familiar and parochial, will be the occasion of both an ethical and a social transformation. (Butler 2001, 224)

Is it possible to weave into this another abstraction, such that two languages with different syntax might reach an accommodation without categories or ontologies? We may not know where our journey is going with this, but that returns us to de Sousa Santos’ point that we need alternative thinking about alternatives (2007), requiring us to abandon all certainty. Here, I have argued that we need alternative grammars to find this alternative and that perhaps these grammars have always been with us, if we had looked. A synthesis is what we are always performing, yet without the legibility or the tools.

6. Conclusion: From World-Making to World-Changing

Uncommoning is both performative and resists enclosure. It is important that enclosures of any kind are only a temporary state (and a state understood as provisional) if collective care to avoid foreclosure and loss of futures is to join collective care for the immediate and local and for redistributive justice. There is an anticipatory weight to nouns used in data processing that joins other enclosures, such as barricades, fences and more visible structures that close things off and down. Without an appeal to collective doing, making and becoming, all

participatory practice and potentially restorative plural engagements can be co-opted by fatal neo-liberal processes. Without flow, all collectivity may be a source of exclusion. We need to be enacting worlds, not choosing ontologies. It reminds how we lost solidarity (Koos 2019; McDonald et al. 2017; Smith and Sorrell 2014), for solidarity must be built. It asks for something fluid and evolving in the place of fixities that not only stop us in a moment but also erase other worlds and other possibilities for worlds to develop.

Inextricably linked, the practices of language are informed by modes of knowledge-making. Data is currency and, as discussed, linked to a redefinition of what it means to be in human society, yet, as shown, there are processes within the design of software (as well as its uses) that act already up-stream to define characteristics. In a paradox, the rapidly-evolving phenomenon of digital technologization can fossilize and stunt opportunities for change and contribute to cultural orientations that reduce capacity for facing and managing current predicaments. This can extend to the nature of the ontologies at work, both in the computational sense of the relations being built within machine learning, and in the sense of what they mean for societal understandings. This tendency demands an overhaul of language and knowledge-making as well as other practice. We can learn from how those building land commons understand themselves as actively communing and how this shift in description helped an emancipatory process re-open after a critical encounter with boundaries.

To end with a question, Butler asks whether the “common” may not be instituted through the production “of what is un-common, what is outside the common, what disrupts it from within, what poses a challenge to its integrity”. Do we need to know “that the ‘common’ is no longer there for us, if it ever was” and that “difference is not only the task of cultural translation in this day of multiculturalism, but the most important way to nonviolence?” (Butler 2001, 21). This sounds as workable an approach to caring as we are likely to find in our fractured and rapidly transforming worlds. It allows space for the transformative work of thinking performatively and, perhaps most importantly, a place of meeting for those interested in integrating the partial and provisional results, without foreclosing them. Language may be a thin tool against the powers that have sucked resources through the centuries, but it is one that almost every human being has access to and can use in the service of others, including beings without translation. In asking whether a regenerative use of language can help curb the flow of resources away from those vulnerable to the destruction of habitat and even challenge how resourcing is understood at a time of recognizing the planet’s limits, we may be confounded by the power of the software industry’s work of definition, but we have the grammar to challenge it.

Notes

¹ Many open green areas in England are still known as the “common”, being the remnants of land where commoners grazed their flocks.

² Serfdom was a form of slavery which kept people working for the local lord with little freedom of movement.

³ Not to be confused with performance or the way that things perform, rather this is an analysis of the power of language to enact, thereby offering a theory of how things come to manifest as they do.

⁴ Whitehead's process philosophy, itself based on Ancient Greek thinking about flow, offers a notion of life as process rather than lives as numbers and states, picked up by biologist Donna Haraway and feminist physicist Karen Barad.

⁵ It is akin to Johnson's dictionary, which, in establishing meanings also pinned down spelling: to write a definitive version of meanings (while doomed to failure) also provides a reference point for how language should be used. It is normative across different dimensions.

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