

D

Digitalⁱ

Jessica McLeanⁱⁱ

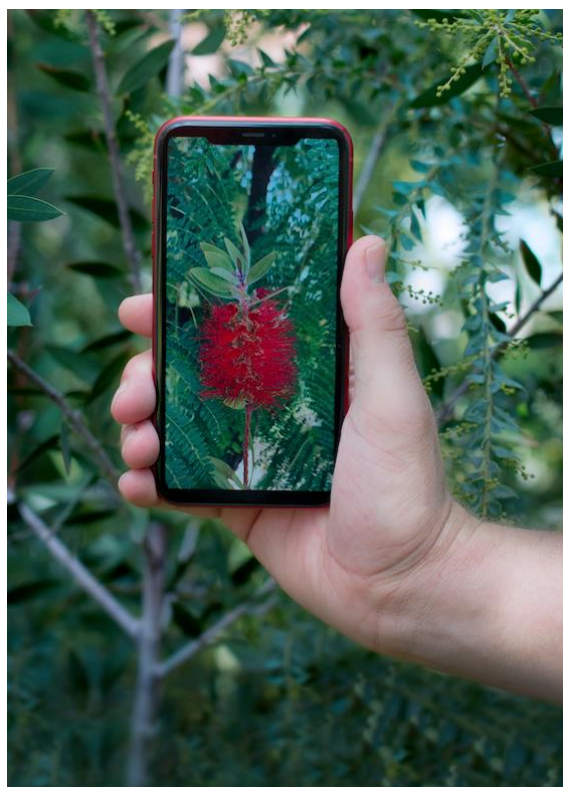


Figure 1: the more-than-real (re)making nature. (Image: Katie McLean)

This photo shows a white male hand holding a smartphone with an image of a callistemon bloom; without the context around the phone you might assume that the smartphone image is of a bloom that is in the right place, at the right time. However, the context that is captured by another camera shows that the image is contrived and that the callistemon bloom probably did not come from that shrub surrounding it. This image was taken outside the callistemon's flowering season – I asked for it to be taken to illustrate some of the ways that meanings are distorted in digital spaces and it came from a florist's arrangement.¹ The distortions that the digital enable may be generative or destructive: they are contingent. This piece of digital representation captures some of the hidden processes and meanings that emerge when we pull apart the digital and analyse what it is (re)making.

¹ This image was taken by Katie McLean and I used this image for the cover of my book *Changing Digital Geographies: Technologies, Environments, People*.

Digital spaces are full of contradictions. They can enable connection and community building on the one hand, while marginalising and silencing on the other. The contingencies of digital spaces are a product of discursive and material processes that intertwine to remake human and more-than-human relations.

In her shadow places piece, Plumwood critiques the dematerialisation of place as it enables us to become “more and more out of touch with the material conditions (including ecological conditions) that support or enable our lives”.² That which is shadowed is not immediately obvious and therefore may not warrant attention or recognition. The digital is similarly prone to dematerialisation. We can forget that cloud computing, for example, does consume energy and needs data centres for storage because we imagine the digital as nebulous or virtual. Feminist new materialist perspectives are helpful here, especially Jane Bennett’s³ work *Vibrant Matters* that advocates for the vitality of material things. Bennett aims to make humans aware of the agency of non-human things in order to help reduce over-consumptive, extractive ways of life. Non-human things are affected by human digital lives – not least because of the increasing amount of carbon that digital technologies consume. Taken together, Plumwood and Bennett give ways to rethink how digital technologies sit in relation to humans and more-than-humans.

Further, we don’t see or recognize many of the key components of digital ecosystems that produce the facility to access the Internet. Wires and cables run underground and across ocean floors, satellites circulate in space, data centres are disguised in the urban landscape as glossy factories and Wi-fi appears to just float in the ether. Data centres are a major contributor to the carbon footprint of digital technologies as they store data, help with data recovery and backup, and networking of computers around the world. Shadow places play a role in these digital ecosystems, as they do in any human-technology network, as the Global North benefits from the distancing and obscuring of key aspects of the digital.⁴

There are other ways in which shadows form in, and from, our digital lives. The people and places that are at the beginning of the commodity chains that make and remake digital technologies are often marginalized from the benefits that their labour accrues for corporate entities. Chan and Cole⁵ describe how Apple, as an example, purport to have ethical digital production practices but evidence has shown otherwise, including the case of tin extraction in Indonesia. Unsafe and illegal labour conditions have endangered lives and children have been exposed to these conditions too.

Exporting dead digital devices to distant elsewhere has been a disposal and recycling strategy of the Global North for as long as managing these once-were-useful machines has been deemed a problem. These transfers of digital waste have serious consequences for the receiving countries and peoples, toxifying environments and transforming landscapes. But there are also moments of strategic use in these (digital) shadow places. For example,

² Plumwood, “Shadow Places,” np.

³ Bennett, *Vibrant Matters: A political ecology of things*.

⁴ Plumwood, “Shadow Places.”

⁵ Chan and Cole, “Despite Claims of Progress, Labor and Environmental Violations Continue to Plague Apple.”

informal miners in the Global South extract valuable materials from discarded digital objects and this form of urban mining gives income and returns material to the economy.⁶

The environmental costs that accompany the benefits of digital ecosystems are frequently hidden. We do not see the electricity flowing through our digital devices in the same way as we see water flowing through a shower head or down a drain. And in the early days of the expansion of digital communications – when email was becoming an everyday tool – the promise of the paperless office was ushered in with the proliferation of digital spaces. Digital solutions continue to be offered without significant consideration of the actual environmental impacts that might be associated with their lifecycle.

One dilemma associated with digital spaces is the desire for quicker, better and more powerful technologies. We want more digital technologies, and better ones, in nearly all places. Evidence of this expanding reach comes from research published in *Nature* by Jones⁷ which demonstrates that Internet traffic was increasing at an exponential rate. Along with this increase of digital use comes an increase in the production of carbon emissions and the increase in all elements of the digital ecosystems that enable connectivity.

Shadows are present in terms of representation of perspectives and knowledges in digital geographies. Uneven geographies that have long histories thanks to colonial and imperial legacies are being reproduced in the digital. The participation and representation of the Global South in digital spaces may be even exacerbating these patterns⁸. Big tech companies are based in the Global North and they continue to dominate the making of digital ecosystems, in terms of making, and being the subject of, most digital data. Ballatore et al.⁹ argue that there are digital hegemonies in representations of place with respect to the Global South, signified by less locally produced digital content than the North in Google searches. While the North is finding new ways to continue exploiting the South, the South(s) are also finding new ways to assert agency¹⁰ and countering of neocolonial digital geographies is happening on multiple fronts.

The affordances of digital spaces are complex – the potential of being heard and claiming ground can be countered by attention fatigue and the reproduction of power relations. Environmental benefits can be subsumed by the costs of exponential growth of digital consumption. Continuing to argue for the materiality and partiality of digital things is one way that these paradoxes can be navigated.¹¹ Similarly, grounding the digital in particular geographies and histories could bring to light the tricky ways in which problems emerge. If we seek out and listen to the stories that come with digital things, the shadows that accompany them may be known as well.

⁶ Grant and Oteng-Ababio, “The Global Transformation of Materials and the Emergence of Informal Urban Mining in Accra, Ghana.”

⁷ Jones, “How to stop data centres from gobbling up the world’s electricity.”

⁸ Graham, et al., “Towards a Study of Information Geographies: (Im)Mutable Augmentations and a Mapping of the Geographies of Information.”

⁹ Ballatore, et al., “Digital Hegemonies: The Localness of Search Engine Results.”

¹⁰ Milan and Tréré, “Big Data from the South(s): Beyond Data Universalism.”

¹¹ McLean, *Changing Digital Geographies: Technologies, Environments, People*.

References

- Ballatore, Andrea, Mark Graham and Shilad Sen. "Digital Hegemonies: The Localness of Search Engine Results." *Annals of the American Association of Geographers* 107, no. 5 (2017): 1194–1215. <https://doi.org/10.1080/24694452.2017.1308240>.
- Bennett, Jane. *Vibrant Matters: A political ecology of things*. United States of America: Duke University Press, 2010.
- Chan, Jenny and Nikki Lisa Cole. "Despite Claims of Progress, Labor and Environmental Violations Continue to Plague Apple." *Truthout*, (2015) https://www.researchgate.net/profile/Jenny_Chan19/publication/335110250_Despite_Claims_of_Progress_Labor_and_Environmental_Violations_Continue_to_Plague_Apple/links/5d5117f192851cd046b4d3fa/Despite-Claims-of-Progress-Labor-and-Environmental-Violations-Continue-to-Plague-Apple.pdf
- Graham, Mark, Stefano De Sabbata, and Matthew A Zook. "Towards a Study of Information Geographies: (Im)Mutable Augmentations and a Mapping of the Geographies of Information." *Geo: Geography and Environment* 2, no.1 (2015): 88–10.
- Grant, Richard J and Martin Oteng-Ababio. "The Global Transformation of Materials and the Emergence of Informal Urban Mining in Accra, Ghana." *Africa Today* 62, no.4 (2016): 3-20. doi:10.2979/africatoday.62.4.01
- Jones, Nicola. "How to stop data centres from gobbling up the world's electricity." *Nature* 12 Sept. (2018), <https://www.nature.com/articles/d41586-018-06610-y>
- McLean, Jessica. *Changing Digital Geographies: Technologies, Environments, People*. London: Palgrave Macmillan, 2020.
- Milan, Stefania and Emillano Treré. "Big Data from the South(s): Beyond Data Universalism." *Television & New Media* 20, no.4 (2019): 319–335. <https://doi.org/10.1177/1527476419837739>.
- Plumwood, Val. "Shadow Places and the Politics of Dwelling." *Australian Humanities Review*, 44 (2008): 139–150. <http://australianhumanitiesreview.org/2008/03/01/shadow-places-and-the-politics-of-dwelling/>.

© 2020 Jessica McLean

This work is licensed under a [Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](https://creativecommons.org/licenses/by-nc-nd/4.0/)



ⁱ McLean, Jessica. "Digital." *An A to Z of Shadow Places Concepts* (2020).

<https://www.shadowplaces.net/concepts>

ⁱⁱ Jessica McLean is a senior lecturer in human geography in the Department of Geography and Planning, Macquarie University, Sydney, Australia <jessica.mclean@mq.edu.au>