Life of information

Book Review of "Recoding Life: Information and the Biopolitical" by Sakari Tamminen and Eric Deibel

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This is the final version of the review piece appeared in New Genetics & Society, which can be accessed freely using the link below. Please cite as follows:
Tempini, Niccolò. 2019. 'Life of Information'. *New Genetics and Society*, July. https://www.tandfonline.com/doi/abs/10.1080/14636778.2019.1637723.

Recoding Life attempts to read the history and future of biopolitical configurations as one tipped out of balance by practices that govern life forms by reducing them to information. Life as information, biopolitics and sovereignty, biological resources and circulation, commodification and commons, openness and freedom… Tamminen and Deibel call these categories (among others) the "metacodes" of life – "forces that we see working in conjunction in shaping the idea, materiality, and process of living today." (154) It is arguably difficult to keep all these categories into play and master such a complex choreography, and indeed Recoding Life sometimes seems to struggle staying on top of it.

Metacodes are put at work in two kinds of configurations: one retrospective and analytical, the other speculative and positive. The first choreography ("matrix of the recent past") captures the established frameworks for understanding, valuing and governing the living as the legacy of modern biopolitics in global market economies. These frameworks, the authors explain, have been shaped by the negotiation of boundaries and definitions of the sovereign that can claim rule over life. A tension is latent between two "platforms".

On the one hand we have a pattern of enclosure, colonisation, commodification, disempowerment that benefits powerful multinationals, corporate and neo-colonial states, and world trade institutions, and that has developed through a series of controversial regulations and conventions introducing patenting and associated commercial protections to genetic code, plant strains and animal breeds. On the other, we have the development of a number of reactive frameworks, mainly in the form of conventions and signatories, aimed at defending life forms from corporate enclosure and reclaiming sovereignty over them for nation states and territories. In the interaction between these two platforms is compounding an unacknowledged and dissonant encroachment between the depauperization of natural resources, an unsustainable chase of extractive growth, the limits and distortions of conservation efforts, and patterns of exclusion and uncertainty in

access to natural resources for the most (including, more than anyone else, farmers of the Global South).

Finding new ways to guarantee access to seeds and animal genetic stock, as a way to ensure that conservation remains linked to broad and sustainable use, becomes the main concern of the rest of the book. The second choreography ("matrix of the near future") is aimed at identifying governance alternatives that ensure most effective access. The role of the concepts of information and data has, as of this point, remained rather subdued, relegated to occasional claims to the extent that in contemporary science all sorts of life forms are translated to information, and from information goods such as food and medicine are produced. In Tamminen and Deibel's words: "The understanding of biology now relies fundamentally on informatics and visions centred on the capability to decode- and recode life as if it were computer software." (152) Claims such as these could certainly make some readers balk. It is the authors' way to argue that data-intensive approaches are logistically convenient because of how they allow new ways to distribute operations, tasks and roles, enabling a whole range of new arrangements of discovery and innovation. Despite the drastic reduction of living forms and processes to the essential schematisations of computer logic is simplistic, this assumption is made a key pivot for the rest of the book, as it allows the authors to deploy an argument closely linked to the "information wants to be free" set piece of openness and post-capitalist advocates. If we can write the recipes of life miracles on a usb stick, why could they not be shared more openly? The illustrious legend of the free and open source software (FOSS) movement shows the way, though even in software world, industry today is not like it seemed it would become back 15-20 years ago, when everybody was excited for the seemingly fatal wounds inflicted by 'peer production' to the greedy proprietary models of Goliath Microsoft. Besides of sovereignty, readers should also be broadly familiar with histories of the software industry, as there is little introduction and much argument here, including digressions on the merits of Linux vs Microsoft operating systems.

Still, this is the backdrop against which the authors select four life governance platforms that allow us to imagine an alternative future through different articulations of sovereignty. The first two envision how current patterns might renew and transform themselves. The current pattern of patented bio-products and corporate bio-power has a chance to remain central if it manages to harness the potential of synthetic biology and re-engineer an industry as the backbone of sustainable growth. Research-oriented communities can reclaim sovereignty by upping their game in more advanced forms of public-private partnerships centred on digital technology and research open data that allow widespread access to 'digitalised biological life forms'. But it is more radical alternatives that hold the biggest promise. Synthetic biology (but one freed from proprietary regimes) and open source-inspired regimes such as 'open seeds' initiatives might empower everybody who has a farm or a biohacking kitchen and turn them in masters of the living: "there is no limit

on the number of inventions that could be made available under a copyleft in alliance with a range of social movements and in support of a greater variety of causes." (146) The point is not backed on a great deal of empirical detail and for this reason we may be warned, for the time being at least, with the classic 'the absence of evidence [of limits] is not evidence of the absence [of limits]'.

There should be no doubt here that the concern is to debate the rights of humans and not the rights of others we share the planet with. The focus is intentionally 'bio-global', as the argument tries to encompass humans' claims on plants, animals, and synthetic forms alike. But these are considered by the authors "biological materials", *nuda vita* that has no claim to life of its own. Governance of the living is to be distributed among humans. As to the planetary level, it is not clear what governance there should be. While this is an issue that their critique of the "matrix of the recent past" touches on, as the authors deconstruct incumbent proprietary innovation growth models as deaf to planetary limits, we lose track of the issue in the big jamboree of openness.

Tamminen and Deibel make a point that a most important contribution of the book is to envision an alternative – the main reference point in the literature here is the "Bioeconomy" or "Biocapital" literature – but the case for the alternative is not too convincing. Despite the authors reaching back in time to engage with Hobbes, Locke, Grotius, Rousseau, and Marx among others, and works of fiction (including *Robinson Crusoe* and *Brave New World*), the argument might have benefited by engaging with, and leveraging from, the literatures of its many layers in a deeper way. There has been a good deal written on the metaphysics of the bio-political and social order since Foucault that one could dialogue with (for one, Esposito), but also works in studies of open source and free software cultures (Kelty) and the Commons (Ostrom), data infrastructures (Star and Bowker) and research (Borgmann, Leonelli), and, given the favourable inclination towards discussing "digitalised biological life forms", questions of digital ontology (Floridi).