Scenario Theory, review of Benjamin H. Bratton, The Stack: on Software and Sovereignty

An ambitious author in the field of new media has to confront the *shelf-life problem*, the possibility, if not probability, that their theoretical insights might be overlooked as the currency of their objects, almost inevitably, expire. One way to address this problem is to consider how old mythic past futures feed into the present, figured in Benjaminian terms as a kind of state of somnambulism. It is in this light that we might appreciate the current renaissance of post-scarcity thought within the field of new media. These debates, often referred to in terms of Accelerationism, contemplate how new media might be able to solve the famed socialist calculation problem —the critique of which formed the basis for neoliberal orthodoxy (Hayek, 2006 [1944]) — such that the aspirations of Soviet cyberneticians might, for example, appear as homologous with those of Google (Bratton, 2016: 58). Accelerationist thought thus seeks to reimagine the logistical networks of neoliberal capitalism, such that Wal-Mart — known, for instance, for their innovations in supply chain logistics — can thus come to represent "the shape of a Utopian future looming through the mist" (Jameson, 2009: 423). It is at the forefront of these speculative and provocative debates that one should position Benjamin Bratton's book "The Stack: on Software and Sovereignty", which claims to offer "a portrait of the system we have but perhaps do not recognize, and an antecedent of a future territory" (5), "a larval geopolitical architecture" (65) that *may* serve as a "metaplatform of an alternative counterindustrialization" (96).

Bratton approaches media theory as if it were a design brief — he even writes in first-person plural as if speaking on behalf of a lab. His approach is, in turns, diagnostic and normative, but above all it is subjunctive, in that, it offers ideas in terms of McLuhanesque probes. At the core of this design brief, then, is his notion of "The Stack", a hermeneutic for interconnecting debates across fields extending from software studies to architecture theory to international relations theory, which imagines the stack architecture of network protocols like TCP/IP as a kind of "armature of the social itself" (19). Bratton's 6-tier Stack model (User, Interface, Address, City, Cloud, Earth) is intended to include all technological systems as part of a singular planetary-scale computer, a kind of Spaceship Earth 2.0, updated to reflect the demands of the Anthropocene era. As with Jameson's famous concept of cognitive mapping (1991), one of the central preoccupations of Bratton's 500 page book — particularly in its middle section — is the Kantian question of how the individual relates to the sublime totality (1996 [1781]). What complicates this familiar narrative, however, are the many ways that The Stack redefines agency and, in the process, undermines the Kantian project. He speculates, for example, on how technological innovations, such as the near infinite address space proposed by the Internet protocol version 6, suggests the Latourian prospect of extending agency to a proliferation of non-human forms of software-sorted sovereign citizens in what he deems an Internet of Haecceities (296).

The capture and valourization of positive externalities under informational capitalism, whereby our thoughts and attention are exchanged for global infrastructural platform services (110), may be said to alter the underlying conditions of knowledge itself. As Bratton observes, Google's famous mission statement to organize the world's information "changes meaning when the world itself is seen as being information, such that to organize all the information is to organize all the world." (87) Given their epistemological significance Bratton argues that media theory is, however, "severely lacking in robust and practical theory of the political design logic of platforms" (44). In remaking the world, Bratton argues that platforms constitute a paradigm posterior to planning in that they mediate interactions whose content is irrelevant. In the sense that these actions needn't conform to restrictive norms, the design logic of platforms operates in a manner famously predicted by Deleuze (1992) — a thought experiment that Alex Galloway (2012) has, for one, speculated might ultimately, in fact, prove to be amongst the thinker's most lasting theoretical contributions. Alongside the thought of Paul Virilio (1991), Bratton appeals to this aspect of Deleuze's thought to consider the phenomenologically transformative relationship between telecommunications networks and architectonic space. In a rhetorical move that can be dated back to the early '60's, the network replaces the machine as the fundamental metaphor for urbanism — an avant-garde design movement referred to as Spatialism in which a young Virilio, in fact, played a part as well (Busbea, 2012). From the perspective of this networked node-and-connector kit-of-parts approach to urban design, the architectural envelope is decoupled from its underlying program, so that the architectural environments of earlier epochs appear as a kind of nostalgic reliquary — or, as Virilio put it, "defining a unity of time and place for activities now enters into open conflict with the structural capacities of mass communication" (1991: 22). At the same time, as Bratton observes, the rethinking of urban space in terms of network topologies results in a kind of real-time read-write urbanism, in which "the essential function of the city is proximity—to people, markets, goods, transport, information — and that the handset condenses the City itself into a remote control apparatus" (168). As the organization of populations, previously asked of architecture, shifts increasingly toward software, Bratton thus advises architects to stop designing new buildings and instead learn to program existing structures, in order to facilitate "serendipitous encounters" (166). It is, however, in relation to another of Virilio's notions, that of the integral accident of technology, that Bratton's argument takes amongst the most peculiar twists here. In contemplating the "aggressive subtitling of the phenomenal world" (240) by locative and augmented reality applications, Bratton worries that the graphic user interface's capacity to "engender committed interpretations" might somehow shortcut the very critical distance necessary for nuanced metaphorical thought, in the process contributing to the emergence of new forms of "doctrinal cognitive fundamentalisms" (239) — indeed, he claims the inspiration for the book grew from an article on how the radical Islamist movement Lashkar-e-Taiba (Bratton, 2010), whom he describes as a kind of "urban design practice" (2016: 248), made use of Google Earth in their attempts at redrawing sovereignty at a global scale.

In thinking through the relationships between networks and space, platforms and sovereignty, Bratton turns to Carl Schmitt's argument that political epochs are founded on new spatial divisions (Schmitt, 2003 [1950]). Building on a tradition of thought extending through Machiavelli, Locke, Vico, Rousseau and Kant, Schmitt saw land-appropriation as the ontological root from which all subsequent judgments derive in normative orders of history. For Schmitt (2005 [1922]) sovereignty signified the autonomy of 'the political' since it was the sovereign who decided on that which was undecidable by law — what he referred to as the 'state of exception'. Schmitt recognized, however, that technology diminished territorially derived sovereign power by decoupling political jurisdiction from geographic knowledge. A practical example of this is how the establishment of a global common datum, through technologies that form the basis of contemporary geolocation services, came to replace national cadastral surveys, thereby stabilizing borders while at the same time making them easier to ignore from the perspective of those in command of the technology — whom Harold Innis would have referred to as possessing a 'monopoly of knowledge' (1949). Bratton refers to this phenomenon as "superjurisdiction" (120), offering the example of how, Google increasingly operates with the force of global sovereign, as, for instance, when it becomes involved in a inter-border conflicts — between Nicaragua and Costa Rica, between Tibet and Kashmir and between Israel and Palestine. To this end, he proposes the 2009 Google-China conflict as potentially signifying an epistemological rupture with an idea of sovereignty derived from territorial

occupation and categorical juridical identification towards an new notion of "platform sovereignty" (22). He positions the latter as an innovation in those techniques of governance that Foucault (2008 [1978]) argued developed over the course of modern European history, as the emergence of economic liberalism gradually shifted sovereignty from states into markets, ultimately culminating in neoliberalism's hollowing out of the state as the locus of sovereign power. In this context of diminishing state power, Foucault developed his famous account of how calculative 'apparatuses' worked to attune and align conduct with the economy, a project of governance that he traced back at least to fourth century Christian pastoralist theology (2009 [1977]). Bratton engages particularly with Agamben's (2009) project, which combines Foucault's genealogy of the theological origins of modern Western governance with aspects of Schmitt's project, in order to describe an 'apparatus' as an instrument of pure governance whose aim is its own self-replication — from which perspective Agamben describes "the extreme phase of capitalist development in which we live as a massive accumulation and proliferation of apparatuses" (2009: 15). While Agamben views these apparatuses as sovereignty machine for producing qualified human subjects for inclusion within a body politic, as opposed to Schmitt he is particularly concerned with what is excluded by the sovereign decision. Thus, in what might also be understood, perhaps more simply, as an extension of the well known argument concerning how classification schemata render discrimination invisible (Bowker & Star, 2000), Bratton speculates on how the apparatus of planetary-scale computing might operate in terms of a "full-spectrum governmentality" (101), automating and radically erasing the sovereign decision from the scale of the molecular to that of the atmospheric. With regards to contemporary technology, Agamben's outlook is markedly pessimistic, claiming that, while it depends upon religious separation, it blocks *profanation* (2009: 24)— or, the liberation of an otherwise captured form of life in order to acquire an alternative form of subjectivity. Here, however, Bratton accuses Agamben's ontology of being essentially anthropocentic and thus incapable of conceptualizing a scenario in which apparatuses might also themselves become deliberate actors — stipulating that " *[f]latness* here refers not to ontology or the withdrawal of objects, but to their functional communication" (205), Bratton is careful, however, not to align himself too closely here with the flat ontology current in media theory, the latter which claims that "all things equally exist, yet they do not exist equally" (Bogost 2012:11). In disciplinary terms Bratton may thus be seen as an advocate for the idea that media theory is the successor discipline to metaphysics — as John Peters Durham has argued in his own recent ambitious project to reconfigure the field (2015: 27). His ambitions, however, extend much further still, as the basis for a normative project for how media theory might also be of practical use in addressing an issue no less pressing than global anthropogenic climate change.

With 2016 as the hottest year on record, it is clear, as Jeremy Rifkin puts it, that "the entropic bill for the Industrial Age has arrived" (Rifkin, 2014 10). As the new media theorist Nick Dyer-Witheford notes, schemes to mitigate climate change are bringing planning back (2013), encouraging technological visions of a scope and ambition that hasn't been seen since the Apollo era. Whilst, Bratton notes, that in the aftermath of Hurricane Katrina, climate change has been used in order to licenses increased militarization, framed in terms of a kind of "ambient terroris[m]" (104), he wants to make a distinction between climate alarmism, that simply reacts to this global state of emergency, and a broadly restorative notion of geoengineering (304) — the latter which he seems to advocate, though he never really discusses what that might entail, whether it be chemtrails, space mirrors or what-have-you. While the issues have changed, in some sense we have been here before, in late '60s when ecological debate, dominated by the image of Spaceship Earth, inspired critiques of both neoclassical and Keynsian economics for 'exogenizing' the environment in terms of 'externalities' (Caradonna 2014) — ideas that presaged contemporary calls to develop an ecocentric approach to media studies, calling for an account of the lifecycle and ecological footprint of our apparatuses (Sterne, 2007). While it is often said that the environmental movement that emerged from this era crystallized around the famous Earthrise image as taken by Apollo astronaut William Anders in 1968 — perhaps prompted by Stewart Brand's famous button campaign, which asked "Why haven't we seen a photograph of the whole earth yet?" (Brooks, 2011: 17) — Bruno Latour (2013) however, argues that, today, in order for a politics appropriate to meet the challenge of the Anthropocene to emerge, it is ironically this very image of unmediated nature that needs to be fundamentally rethought. In order to make us feel responsible for climate change, to render the consequences of our actions visible, Latour advocates for the installing of ubiquitous environmental sensors networks (2013: 93). In advocating the idea that "You can't monitor what you can't measure," (the slogan for 'Planetary Skin' a collaboration between Cisco and NASA), global-scale environmental sensing projects arguably overlook a foundational critique of positivism developed within the human sciences — as Bratton remarks, ultimately, this initiative "cannot measure what it thinks it can measure" (106).

Although Bratton admits that The Stack is probably "the hungriest thing in the world" (94), as an Accelerationist, he sees more, not less, technology development as the path beyond the impasse of the Anthropocene. To this end, like Rifkin (2014), he is hopeful for the prospects that the Internet of Things, or the Internet of Haecceities in Bratton's jargon, might bring back the Atomic-era mythic past future of energy 'too cheap to meter', through the installation of an omni-directional smart grid of renewables (95) — a line of speculation that concludes with a teleological-cum-theological vision of The Stack as an autopoetic Gaian entity designing itself for the ultimate purpose of its own renewal (107). If Bratton's more adventurous flights of theoretical fancy occasionally draw on such quasi-theological imagery, perhaps this is because, as Latour argues, it is only by "encounter[ing] again the beings proper to religion" (2013: 36) for their power to convert, that we can formulate a response appropriate to the challenge of the Anthropocene. While Bratton critiques Latour's famous proposal to assemble all of these beings together into a Parliament of Things (2004), as representing an "old-fashioned, even reactionary, kind of political speech" (104), in their shared attempts to rise to the occasion of the Anthropocene, I can't help but wondering, with Mark Greif (2015), about the extent to which the normativity of these projects may repeat patterns from an earlier era when scholars felt obligated to respond to a perceived "crisis of man". Bratton's subjunctive approach, what we might call *scenario theory*, at once licenses him to make such occasionally risky theoretical maneuvers, while at the same time hedging his bets. While, from the point of view of a reviewer, this equivocal approach can be frustrating, in its ambition to expand the scope of the field, *The Stack* should be regarded as consequential contribution for the future of the new media theory.

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