

CHAPTER 3

Beyond Big Data Capitalism, Towards Dialectical Digital Modernity: Reflections on David Chandler's Chapter

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1. Introduction

David Chandler's chapter studies changes of onto-epistemology and governance in the age of digitality and Big Data. He argues that the logic of dualism, reductionism, linear causation and mechanic determinism has advanced problems of society and is unable to give a proper response to the world's complexity. The implication is that we need a different kind of onto-epistemology that moves beyond dualism and enables new forms of governing society and the digital. David Chandler argues in this volume that the 'ontopolitical assumptions of digital governance can be usefully grasped in terms of actor network theory', and in this context he is particularly interested in Bruno Latour's works and new materialist theories in general, including the works of Donna Haraway and others. David Chandler says that these approaches allow us to move beyond dualism and to conceive the world and the digital as being

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co-relational, instead of as dualistic and based on linear causality. Big Data would be part of new correlational machines of sensing and seeing the world that have resulted in new forms of digital governance focusing on co-relation and correlation.

David Chandler's general approach is to search for and analyse onto-epistemologies that go, or claim to go, beyond dualism. He is in this context particularly interested in complexity theory and resilience studies. '[E]mergent or general complexity [...] appears to be the leading contender as an alternative ontological vision of the world' (Chandler 2014, 51). '[R]esilience-thinking claims to have the solution to the apparent conundrum of governing without assumptions of Cartesian certainty or Newtonian necessity' (Chandler 2014, 63).

2. (Post-)Modernity and (Post-)Modernism

I certainly agree that the dualist logic of subject/object, culture/nature, humans/technology, mind/body, society/economy, communication/work, reproduction/production, and so on, is a key aspect of an instrumental reason that has backfired and created global problems that society is not easily able to govern. But I am not convinced that it is theoretically feasible to term instrumental reason and dualism 'modernist binary understandings', 'modernist understandings of the world' or 'modernist divisions', and to characterise the alternative as 'non-modern ontologies' and post-epistemology.

The implication of such a terminology is that the alternative to modernity is either premodernity or postmodernity. A premodern onto-epistemology, as advanced for example by Martin Heidegger, often ends up in techno-pessimism that rejects any form of advanced technology use. For example, Heidegger saw newspapers, electronic communication and public transport as inauthentic forms of modernism that should be abolished (see Fuchs 2015). The other option, indicated for example by the term post-epistemology, is to see the alternative in a form of postmodernity.

Questioning binaries and determinism is certainly a feature of the works of postmodern thinkers such as Latour, Haraway, Lyotard, Baudrillard, Derrida, and Deleuze and Guattari. In postmodern thought, there is a stress on chance instead of design, deconstruction instead of totality, absence instead of presence, networks instead of hierarchies, indeterminacy instead of determinacy, immanence instead of transcendence, and so on. (See Table 1.1. in Harvey 1989, 43).

'[B]reaking through dualism appears to be the key to new materialism' and postmodern thought (Dolphin and van der Tuin 2012, 97). These approaches advance 'a monist perspective' (Dolphin and van der Tuin 2012, 85) that involves not only the flat ontology advocated by Chandler and others, but also what could be characterised as a new collapsism that collapses human/non-human,

society/technology, the human/the machine, class/non-class binaries into one. Posthumanism collapses the human and the non-human and humanoid robots into the posthuman cyborg. Bruno Latour's Actor Network Theory collapses technology and society into the actant as the social. Deep Ecology and animal liberation theory collapse nature and society into an undifferentiated whole. Postmodernism collapses class/non-class into identity, and culture/economy into culture. The consequence is that postmodernism has not just tried to displace and purge Marxist humanism from the academic world over the past decades, but has also been the ideology of capitalism's regime of flexible accumulation (Harvey 1989). There is a 'connection between this postmodernist burst and the image-making of Ronald Reagan, the attempt to deconstruct traditional institutions of working-class power (the trade unions and the political parties of the left), the masking of the social effects of the economic politics of privilege, ought to be evident enough' (Harvey 1989, 336). The danger of postmodern approaches is that proclaiming the 'farewell to modernity' can advance 'counter-Enlightenment in the garb of post-Enlightenment' (Habermas 1990, 5).

3. Dialectical Modernity

I agree with David Chandler that we need to move beyond dualist logic and analyse the world as a complex, dynamic whole. But postmodern thought lacks the necessary power of differentiation. Modernity is not the same as capitalism, instrumental reason and liberalism. Assuming the identity of these phenomena overlooks that modernity is in itself contradictory and contains the seeds of, and potentials for, post-capitalism.

Modernity is the project that aims at using knowledge 'for the pursuit of human emancipation and the enrichment of daily life' (Harvey 1989, 12). The type of modernity that is based on dualism, reductionism, mechanistic causality, positivism, instrumental reason, calculability, and determinism has backfired as a negative dialectic of the Enlightenment (Horkheimer and Adorno 1944/2002) and created a history of modern catastrophes.

But modernity is not just domination from above, but also manifests through hegemony as domination from below as well as resistance. This resistance to instrumental reason does not stand outside modernity but constitutes an alternative modernity. An alternative project can be based on the antagonistic features of modernity. Jürgen Habermas (1990) and Frederic Jameson (1991) agree that modernity is therefore incomplete. For Jameson (1991, 309-10), this means that postmodernity is more modern than modernity, whereas Habermas argues for a different, alternative modern project. Critical, dialectical modernity is an alternative to capitalist, instrumental modernity. Modernity is an unfinished project, because it lacks certainty and finitude and always remains

open and developing. Modernity is always unfinished because it is an open, contradictory, dynamic societal formation.

I find the tradition of Hegelian and humanist Marxism a much more feasible approach than postmodernism. Postmodernists have often tried to present humanist and Hegelian Marxism as being part of the dualist tradition. But in reality, such versions of Marxism have advanced the onto-epistemology of dialectical modernity, in which categories and phenomena are identical and non-identical at the same time, posing a contradictory logic out of which dynamics, complexity and open development emerge. Hegel characterises the emergence of complexity and new properties as *Aufhebung* (sublation) taking place in an event, where contradictions (negations) are negated. Hegel describes the dialectical process as an open system of the encapsulated construction of triangles, so that a contradiction is sublated into a new emergent property that is itself part of a contradictory relation that constitutes the base of a new triangle that comes about through a further sublation, and so on. 'Something becomes an other, but the other is itself a something, so it likewise becomes an other, and so on ad infinitum' (Hegel 1830, §93). The logic of dialectical modernity is therefore complex, open and fractal in nature (see <http://www.hegel.net/en/e-poster.htm>; Fuchs 2003; 2004; 2008; Fuchs and Schlemm 2005). Dialectical modernity consists of different organisational levels that are constituted by encapsulated dialectical triangles that develop dynamically. Each triangle is a dialectic of subject and object. The more one zooms into this fractal dialectic, the more dynamic the system is. At its inner level there is constant change. The more one zooms out, the more continuity you will find. This encapsulated triangle structure is based on a dialectic of continuity and inner change/discontinuity. Human practice and praxis is the activity that produces society's dialectic and the changes at different organisational levels of this dialectic (Marcuse 1941a). It is an unsubstantiated prejudice often labelled against Hegelianism and Hegelian Marxism that they advance closure and determinism. Concepts of complexity theory such as emergence and bifurcation points can be seen as a manifestation of Hegelian dialectical logic and its principles such as *Aufhebung*, the negation of the negation, and the turn from quantity into new qualities (Fuchs 2003; 2008).

There are different ways of overcoming dualist logic. Postmodernism is one way, Hegelian humanist Marxism another. The two act as dialectical conversational poles. In some cases, they sublate each other and productively fuse into a new emergent whole – as is the case with the book you are holding in your hands or reading on your screen.

The dualisms of instrumental reason are at the foundation of capitalist domination that in a negative dialectic again and again turns against itself and so destroys capitalism's promises and produces crises and societal problems. Instrumental reason is the attempt to make society undialectical and one-dimensional. We never know when a major crisis will emerge, but we can

be certain that as long as society is based on instrumental reason, sooner or later such a crisis will appear (Fuchs 2004). Immanuel Wallerstein has combined Marxist crisis theory and complexity theory, arguing that:

The modern world-system in which we are living, which is that of a capitalist world-economy, is currently in precisely such a crisis, and has been for a while now. This crisis may go on another twenty-five to fifty years. Since one central feature of such a transitional period is that we face wild oscillations of all those structures and processes we have come to know as an inherent part of the existing world-system, we find that our short-term expectations are necessarily quite unstable. This instability can lead to considerable anxiety and therefore violence as people try to preserve acquired privileges and hierarchical rank in a very unstable situation. In general, this process can lead to social conflicts that take a quite unpleasant form (Wallerstein 2004, 77).

Wolfgang Streeck (2016) argues that the long phase of the complex world crisis that Wallerstein describes has resulted in a catastrophic crisis of capitalism. He says that capitalism's contradictions are exploding and that the system can no longer defer the crisis into the future by buying time. Streeck (12) confirms Wallerstein's analysis that capitalism has 'entered a period of deep *indeterminacy* – a period in which unexpected things *can* happen any time'. Streeck goes on to argue that we have entered a phase of prolonged chaos that he calls the interregnum – 'no new world system equilibrium à la Wallerstein, but a prolonged period of social entropy, or disorder' (13), in which social structures and institutions dissolve and leave society's 'members alone' (36), and the logic of the survival of the fittest rules. Streeck's position is in contrast to Wallerstein's somewhat defeatist. He sees the logic of indeterminacy as resulting in societal doom and gloom without a way out. Michael Hardt and Toni Negri (2017, 202) note that for Streeck 'all antagonistic subjects capable of challenging capitalist rule have now disappeared'.

In contrast to Streeck, Wallerstein sees uncertainty as a new principle of hope that should motivate political movements to attempt the impossible in pursuance of establishing a new system. Such optimism is based on the fact that the outcome of praxis is undetermined in bifurcation points and can intensify in unpredictable manners. Wallerstein implicitly advances a new notion of praxis that operates on the basis of relative chance, dialectical logic, and dialectical indeterminacy. 'The period of transition from one system to another is a period of great struggle, of great uncertainty, and of great questioning about the structures of knowledge. [...] And we must finally figure out how we can act in the present so that it is likely to go in the direction we prefer' (Wallerstein 2004, 89–90). Praxis faces uncertainty, but it is also the attempt to increase the likelihood of certain preferable options at bifurcation points.

4. Big Data Capitalism's Solutionism

Computing is embedded into the crises that have emerged from capitalism's contradictions. And arguably, it has to some degree made the occurrence of crises and catastrophes even more likely. Algorithmic trading, for example, has intensified the likelihood of financial crises. Together with the general logic of fictitious capital underpinning financial derivatives, it has made financial markets more unpredictable. User-generated fake news and fake online attention are forms of a semi-automatic online politics that uses social media bots and artificial intelligence. In the world of Big Data, it has become more difficult to discern which actions are initiated by humans and which by bots and algorithms. The conjunction of algorithmic politics and right-wing extremist ideology has increased the uncertainty and unpredictability of politics. Not many people thought that Donald Trump would become US president, but the polls' models of prediction failed: it was precisely this conjunction that won Trump the election (Fuchs 2018).

Big Data has not moved us towards dialectical modernity, but has rather tended to deepen the logic of mechanistic determinism, reductionism and dualism, and the division of mental and manual labour that Alfred Sohn-Rethel (1978) considers characteristic of class societies, particularly capitalist ones. In contemporary capitalism, Big Data has been embedded into what Evgeny Morozov (2013) calls technological solutionism. Digital solutionism is based on the logic *to save everything, click here*. It assumes that digital technologies make society completely controllable, steerable and governable, and therefore provide a fix for global problems, economic and political crises, terrorism, crime and so forth.

The logic of technological solutionism is not new. It is a capitalist logic that Horkheimer (2004) called instrumental reason and Marcuse (1941b) technological rationality. Digital solutionism intensified and accelerated after the 9/11 attacks. Unable to respond to political complexity, governments advanced the solutionist ideology that large-scale data and online surveillance can predict, prevent and control terrorism and organised crime. The logic of determinism was thereby further extended and intensified. The surveillance society combines surveillance ideology, the surveillance state and surveillance capitalism (Trottier and Fuchs 2015). The rise of Big Data has added a new dimension to digital solutionism, advancing Big Data solutionism, which is the idea that Big Data sets can control, solve and overcome economic and political crises. Big Data capitalism does not overcome, but instead deepens the logic of dualism, determinism and linearity. It is an intensification of instrumental reason that has created new qualities of domination and exploitation. So for example, 'techniques and ideologies of Big Data make another appearance, promising that a greater, deeper analysis of data about past crimes, combined with sophisticated algorithms, can predict – and prevent – future ones. This is a practice known as "predictive policing", and even though it is just a few years old, many tout

it as a revolution in how police work is done. It is the epitome of solutionism' (Morozov 2013, 182).

David Chandler hints at such a critique of Big Data solutionism when at the very end of his chapter he argues, drawing on Giorgio Agamben, that digital and Big Data governance can 'be seen to be thoroughly depoliticizing, as the tasks of governance are discursively derived "empirically" from the world, rather than from human actors as subjects'. The end of the story turns back against the main thread of the story, which in a discursive logic typical for David's writings, creates an openness and uncertainty regarding the whole story itself.

5. Towards Dialectical Digital Modernity

The escalation of the antagonisms inherent in capitalism's instrumental reason has intensified the complexity, unpredictability and uncertainty of societal development. This phase of the deep economic, political and legitimization crisis coincides with the rise of Big Data capitalism. Big Data technologies promise to create certainty in a highly uncertain world, yet through their logic of digital solutionism they exacerbate the crises. But pointing this out does not mean that we should abolish digital technologies and revert to pre-modern technologies. It is also no way forward to try to create radically new postmodern technologies that completely break with the technologies we have. The digital technologies we have are internally antagonistic. They advance solutionism and domination, yet at the same time they contain new potentials for cooperation and liberation. The point is that capitalism, class, power structures, domination and exploitation have never allowed society and technology to become fully dialectical.

Again and again, modernity turns against itself and destroys its own potentials, calling forth catastrophes and crises. The point is then to shape technology and society differently and dialectically, so that digital objects and digital subjects are no longer separated but, based on the logic of dialectical modernity, form a differentiated, complex unity in diversity. Our societal and digital future is uncertain. But this does not mean that technology can determine or compute the future. That society is complex, dynamic, open, non-linear, unpredictable and dialectical is an impetus for praxis as political hope that aims at transforming the whole by perpetuating the system and trying to increase the likelihood of certain potential development paths of our societal and digital future. Such a future is not pre- or postmodern, but an alternative, dialectical (digital) modernity that realises its own potentials. It is the revolt against capitalism in general, and the transcendence and sublation of digital capitalism in particular. Such a society will also transform and sublimate today's digital technologies, which means that it will abolish destructive technologies and technological qualities, preserve technologies of cooperation, reconstruct existing technologies and create new dialectical technologies that transcend the logic of instrumental reason.

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