The Condition of Digitality: A New Perspective on Time and Space

Our 'direct' experience of 'real' reality is already structured…

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Drawing deeply and directly from Marx as he always does, David Harvey, in *The Limits to Capital*, says of the connection between capital accumulation and technological change that:

> Capitalism is highly dynamic and invariably expansionary. Powered by the engine of accumulation for accumulation's sake and fueled by the exploitation of labour power, it constitutes a permanently revolutionary force which perpetually reshapes the world we live in.[2]

He goes on to argue that this 'permanently revolutionary force' has lost none of its verve and continues to drive and shape capitalism today as much as it did in Marx's time. However, Harvey's innovation within Marxism is the emphasis upon the role and function of physical space in the processes of accumulation. Physical space is the container of the process of accumulation. And within such space the process evolves as a relation based upon certain criteria such as the *material* forces of machinery, plant, offices, labour, natural resources and so on; upon forces such as these that are *contiguous* insofar as accumulation must always seek to overcome the proximal barriers that it will inevitably encounter—material, physical, technological, governmental (such as policies, tariffs, etc.) 'which can check, and on occasion disrupt the overall circulation of capital'[3]; and upon *technological change*—to replace labour as much as possible and to increase the rate of surplus value extraction, both of which are essential to successful accumulation.[4]

The 'transition' that Harvey theorises in *The Condition of Postmodernity* is the transition to a new and necessary (for capital) form of *flexibility* in the political and economic context surrounding the accumulation process. The crisis of overaccumulation was central to his analysis of the political economy of 1970s capitalism. This was overcome, at least temporarily, through implementation of neoliberal policies that promoted globalisation and thus gave accumulation a new lease of life through a growing ideologically-sanctioned capacity to expand deeper into culture and society, and wider into new physical spaces, into new markets and zones of production, to overcome any barriers to the free-flow of capital wherever they may be. The point was emphasised by Noel Castree, who writes in his essay on Harvey that 'For [Harvey] capital accumulation is a seamless process: a flow that is realised in and through diverse physical and symbolic things, such as living labourers, factories, architecture and communication systems.'[5] As I said, space and the flow within space is an important insight in Harvey's analysis of accumulation, and I'll come to it again shortly. Before that I will highlight once more the consequences of his underplaying the question of technology. On one hand he agrees with Marx that technological change is a vital element in the accumulation process in that it grows the rate of labour exploitation and hence profit. On the other hand he departs from Marx's view that the inevitable consequences of technological change are necessarily the suppression of wage levels, the creation of a reserve army of labour, and the never-ending immiseration of workers through unemployment or starvation wages—a logic that would prepare the ground for a socialist revolution. In Harvey's spatialised account of accumulation, the 'spatial fix'[6] or 'accumulation through expanded reproduction', shifts Marx's inner contradiction to a wider sphere, with geographic space supplying the historical time for capitalism to survive for much longer than Marx could have envisaged. The crisis of the 1970s was for Harvey the political economy context for the largest 'spatial fix' in the history of capitalism. It was to be a transformation that would inaugurate the present phase of globalisation, and which would bring capitalism and its dynamic of accumulation to every corner of the Earth for the first time. The corollary of this was that the post-Fordist 'spatial fix' might be the last one.

A Mutation in Accumulation: Generalised Commodification through Digitalised Networks

The phenomenon of digitality raises serious questions about Harvey's political economy of space. His downgrading of the technological, and his seeming lack of interest in the possible consequences of digital networks, undermine both the spatial theory of capitalism in *The Limits to Capital* and the cultural and political articulation of this theory in *The Condition of Postmodernity*. The 'transition' he describes in his latter book was not *fundamentally* an ongoing historical materialist shift to a different *economic and political context* in order

to solve the overaccumulation crisis. It was, rather, the evolution of a new *technological and ideological* context, neoliberalism, that triggered a *mutation of the accumulation process itself*.

To make sense of this we need to think back to the analogue-digital binary that was discussed earlier. There we can see that accumulation in the classical sense was a completely analogue process. When Marx wrote about accumulation as being the most important requirement of capitalism, he wrote about a process that emerged and functioned according to the logic of 'technique' that existed at that time. Moreover, this was expressed through the Gehlenic 'circle of action'—the interaction of humans, technology, and nature. For thousands of years this interaction was elementary and localised. In the Britain that Marx studied, the interaction had become industrialised and generalised but the interaction itself was still analogue. Industrial technologies that corresponded to nature and the human body continued to scale the world to human dimensions. It follows that the processes of capital accumulation were roughly contiguous; that is to say, people could recognise and understand their accumulation-serving activities as crossing time and space in a visible way, and they could therefore recognise and understand the flow and the movement between cause and effect within its human-scaled contiguity. The connective tissue of this accumulation was held in place through the characteristics of technique. In the main, these corresponded to two of Gehlen's categories: of 'strengthening', in that they amplified human capacities, and of 'facilitation', in that they relieved the burden on human organs. In Victorian Britain, the 'seamless process' that Castree describes preserves its discernibly analogue quality in the accumulation process.[7] However, this sense of contiguity, and of the human scale of the accumulation logic, began to be stretched and strained with the introduction of new techniques of 'replacement', of techniques that acted in space-time capacities that humans do not possess. The immanent 'potential' of technology when subjected to the narrow imperatives of accumulation, meant that 'replacement' innovations such as the telegraph were oriented in purpose to rationalising and ordering the non-human-scale physical space in which they operated. It was the telegraph—the first of the rapid and long-distance communication technologies—which acted upon the accumulation process in a new and revolutionary way that was not fully understood at the time. However, with perhaps unconscious prescience, *The Communist Manifesto* of 1848 noted the de-localising capacity of accumulation through the 'electric telegraph'.[8] The 'magic' of the telegraph, whose vital electronic code Marx described later as something 'not made up of raw material' and therefore a strange but effective 'auxiliary'[9] to accumulation, actually served to supercharge the process of accumulation by taking it to another spatial and temporal level where, as the *Manifesto* famously put it:

All old-established national industries have been destroyed or are daily being destroyed. They are dislodged by new industries … that no longer

work up indigenous raw material, but raw material drawn from the remotest zones; industries whose products are consumed, not only at home, but in every quarter of the globe. In place of the old wants, satisfied by the production of the country, we find new wants, requiring for their satisfaction the products of distant lands and climes. In place of the old local and national seclusion and self-sufficiency, we have intercourse in every direction, universal inter-dependence of nations. And as in material, so also in intellectual production.[10]

This passage is cited often as a vivid presage of the globalisation of our own time. Marx and Engels may not have known quite what to make of this 'auxiliary' to accumulation, but they did see that communication technologies would be important, and that the human-scaled world of early industrial capitalism was being transcended. Marx in particular, in his *Grundrisse* of 1857, intuited that an invisible and increasingly rapid connective web of communication would become the central organising force for a capitalism destined to globalise its drive to accumulate in space that is annihilated by time.[11] It took the extraordinary potential of computing as a communication and rationalising technology to make the definitive leap that would transform analogue accumulation into digital accumulation. In so doing it would become a different form of accumulation, a mutation of capitalism's DNA, a capitalism now increasingly dominated by another technological category.

How are we to understand this mutation? Digital capitalism is able to, as Dan Schiller phrased it, 'directly generalise'[12] the scope of its activities to almost every facet of life. This is the headline effect of capitalism's capacity for accumulation of a radically new order. Underlying this, however, it is possible to see that capitalism's digital logic allows it to *be present* everywhere in the world *at the same time*. It is able to be 'on' (actual) or 'off' (atmospheric) wherever and whenever there is a networked connection. And as digitality becomes more extensive, then so too does accumulation act as an actual or atmospheric force. This idea is not entirely new. However, some media theorists, of whom Dwayne Winseck is representative, strike a common note by getting the analysis of digital capitalism only half right. Winseck is right when he observes that '*direct commodification* is playing a greater role because digital media make it easier, more efficient, and effective than ever to monitor, measure, and monetize'.[13] Direct commodification is the constant presence of digitality in our lives. Direct commodification becomes physically part of our person when carrying a networkable device, and direct commodification is present around us in the ether through networks of invisible data streams that, along with the connected device, form a condition of digital *superveillance,*[14] of an overweening control over the human as both subject and object of accumulation. This is digitality as omnipresent. It directly commodifies our thoughts and actions, and we do not even have to be conscious of the fact. And this is only the beginning.[15]

However, Winseck misses the full import of digitality and actually weakens his analysis of it when he continues, quoting Vincent Mosco for support: 'Thus, far from constituting a rupture with the past, the "central tendency" of digitalisation "is to deepen and expand the capitalist market system"'.[16]

The deepening and the expansion of capitalism are certainly true. But it's not simply that digitalisation is powerfully enhancing the same old logic, acting only as a trusty 'auxiliary', and that all the Victorian pieces of that logic are still in place. Marx's 'auxiliary' of space shrinking and time accelerating communication technology has become the *central* dynamic and the leading force within capitalism. And anyway, 'rupture' does not quite capture it. Capitalism, and by extension, accumulation, have undergone a mutation in response to their changed technological environment. Like the mutated gene in biology, capitalism begins to affect its environment once it establishes itself in that environment. Analogue accumulation became digital accumulation with the introduction and establishment of digitality as the environment within which accumulation takes place. The subtitle of this chapter is 'a new perspective on time and space'. It is meant to signal the importance of time and space for the processes of accumulation. With the digitalisation of time and space, capitalism has broken free from the technological shackles of analogue technique. The mutation has transformed its environment by making the old one increasingly redundant. There was nothing planned and conscious about this; it is the historical potential of technology coupled with capital accumulation following (and *being able* to follow) the logic of its own imperatives. Breaking free had two major effects: first is that it has alienated deeply the labour component of capitalist accumulation, forcing upon billions of us the 'relation of relationlessness' that I described previously through Rahel Jaeggi's work. This now constitutes the human relationship with post-analogue technology. Second is the transformation of the accumulation process itself. Through digitality, capital accumulation has garnered to itself hitherto non-existent capacities for labour extraction and value creation. This is achieved though the function of information as the central creator of value. Information in the form of code and software, and all that these make possible, from tracking to apps, and from 'productivity' tools to entertainment, are now networked and pervasive and come pre-loaded with the potential, atmospheric or actual, for direct commodification.

Direct commodification through digitality gives the processes of labour and value-creation a new and infinitely expandable dimension. Through digitality, accumulation becomes a pervasive process, it presupposes almost everything we do, at least in potential, a potential that is always either atmospheric or active. At one extreme, to have an active digital communicator in your pocket is to place yourself, consciously or not, into the zone of labour and value-creation/extraction for capital. Whether in your pocket or in your hand, the digital device acts as your tether to the network through increasingly complex and automatic protocols whose functions and opt-in-or-out controls lie buried deep inside the

software access terms and conditions legalese that barely anyone reads or understands. We check the box. And we activate, among a growing number of functions, GPS-enabled tracking which, as Michael Curry has written, 'has created a system of great power, and of great utility for the storage and analysis of information and for extended surveillance on individuals and groups'.[17] Labour power and value are expended and extracted merely by possessing the device. Possession, and the contiguity to the network that it presupposes, facilitate the surreptitious collection of data not only for storage, analysis and surveillance purposes, but as data that is immediately convertible into exchange-value, atmospheric or active, as soon as it is registered to the servers of the collecting agency. Slightly more salient are the push–pull capacities of the digital device. Push code is where distant servers ping your digital communicator with notifications or updates of every sort, and pull code is where your phone will ask servers for new information or content. The constant push and pull of digital signals keep you attached to the network, and the process generates data that can be aggregated, analysed and parcelled-up in milliseconds for auction to advertisers eager to obtain user profiles. At the middle of the continuum of digital accumulation is a more active–cognitive realm where the user spends time in conscious interaction with the web or network in work, study, leisure, and so on. Here work can be formally commodified in the routine activity of what used to be termed, in the phrase coined by Daniel Bell in his 1962 *The End of Ideology*, the 'information worker', the service worker whose cognitive skills acquired as practical–vocational knowledge in the ongoing expansion in technical and higher education are subsumed by digitality into the network as directly commodifiable activity.[18] Labour and value-creation are further extracted through the very pervasiveness of digitality itself, in a context where work, entertainment and recreation blend increasingly seamlessly in the lives of millions if not billions of people. Almost every network activity, consciously or unconsciously, is now an actual or atmospheric source of direct commodification.[19] And in the context of digitality, where accumulation remains the 'Moses and the prophets'[20] of capital, the drive to find every opportunity, however remote or presently unthinkable, to monetise this human vulnerability, gives constant expression to the alienation inherent in the 'relation of relationlessness'.

We see this drive most clearly in both its most sophisticated and yet crudest articulations: in the so-called 'labour platforms' that constitute the technological and physical labour articulations of the gig economy. The Data and Society Institute published a report, based upon ethnographic research in the US in 2018, that is one of the few that goes beyond journalistic and corporate narratives on the gig economy, to undo some assumptions that cast labour platforms as a normative phenomenon.[21] Increasingly sophisticated phone-based apps are at the heart of what the authors term 'algorithmic management'—or automated exploitation.[22] The sophistication of the labour platforms is shown in the fact that they are able to colonise, digitalise and monetise labour in both old and new ways. The authors write that:

We outline two distinct types of labor platforms: on-demand and marketplace platforms. These two types of platforms share features such as measuring worker performance through ratings and reviews, penalizing workers through deactivation, and channeling communication through in-app systems. However, they intervene differently in the relationships between workers and clients. While on-demand platforms (like Uber) indirectly manage the entire labor process – from hiring, dispatching to clients, payment, and surveillance of services provided – marketplace platforms (like Care.com) primarily target the hiring process through sorting, ranking, and rendering visible large pools of workers. Several platforms (like TaskRabbit) combine elements of both types. On-demand and marketplace platforms shift risks and rewards for workers in different ways. Marketplace platforms incentivize workers to invest heavily in self-branding and disadvantage workers without competitive new media skills; meanwhile, on-demand platforms create challenges for workers by offloading inefficiencies and hidden costs directly onto workers.

Digitality and its innovative capacity to restructure and network labour relations through on-demand and marketplace platforms, bring alienation and exploitation to a new plane of articulation and constitute the leading edge of direct and automated capitalist accumulation. The *ideology* and the *practice* of time and space within neoliberal digitality play the central role in this emergent articulation. The classical contiguity of material processes of accumulation within economies and societies is increasingly attenuated by digital networks of communication. The leading edge of digital accumulation practices does not function such that analogue-based recognition of cause and effect in time and space is evident and understood as in capitalist modernity. The Uber driver and TaskRabbit cleaner do not face a supervisor, or converse in person (therefore discovering potential solidarity) with a fellow-worker; neither are they based in any physical infrastructure that is owned or rented by the company for which they work. Of course, the production, distribution and consumption of physical things are still a major element of digital capitalism. And so an Amazon 'fulfilment centre', for example, exists in time and space as a physical-material entity, much like warehouses have always done. However, Amazon calls these centres 'specialized infrastructure' with a specific, network-dependent function. Amazon's fulfilment centres may exist in physical time–space, but they—and their contractors, suppliers and customers—function in digital time–space. Machine-learning picker robots, cloud computing databases, network logistic analytics, just-in-time delivery and despatch run 24/7 alongside increasingly fine-grained surveillance and value-extraction techniques applied to third-party supplied and minimum-waged labour.[23]

This is the growing reality of work today. This and more is the future of work. Unless this process of neoliberal digitality is stopped or thwarted by organised

labour or by organised social-democratic or socialist political action, the logic of digitality inside labour platforms will continue to colonise older labour practices and institutions where possible, and will inaugurate newer and more 'innovative' forms of accumulation as economies continue to change and reflect competition. In short, whereas analogue accumulation engendered resistance through the dialectic of materiality, the logic of digital accumulation nullifies this immanent process and therefore the antithesis is unable to emerge in the old ways.

The Evolution of the Mutation

If the accumulation process under capitalism has undergone a mutation due to the effects of digitality, it follows that capitalism more broadly has too—exhibiting effects that reach beyond the more constrained logic of its earlier form. Marx, for example, saw capitalism as more than a narrow economic process. It is often forgotten that he saw it as a *social relation*; one that encompasses, potentially, all forms of life in societies where capitalism holds sway. A contemporary advocate of a wide-as-possible theoretic lens in respect of the analysis of the condition of capitalism is Nancy Fraser. She argues that any analysis of capitalism must incorporate 'the insights of feminist thought, cultural theory and poststructuralism, postcolonial thought, and ecology'.[24] To this I would add digital media and digital technology, and so I will integrate and develop these themes in the remainder of this part of the book.[25]

Jacques Mallet du Pan was a journalist, and also a 'notorious royalist' according to Karl Marx,[26] who was on the side of Louis XVI in the French Revolution. Du Pan would have had an investment in the revolution's outcome, and so his views on the subject of revolution might be predictable. Accordingly, he's largely forgotten except for one aphorism that survives, and which Marx would have done well to consider when writing about him: 'The revolution devours its children', du Pan is recorded as saying. It's worth reflecting on this when thinking of the revolution in digital technology that has gripped the functioning of capitalism. Through digitality, capitalism damages its own conditions of possibility. It devours its children, to use du Pan's more eye-catching phrase. To be clear: this is not the gravedigging antithesis in which Marx had so much misplaced scientific confidence. Perhaps closer to what I want to suggest comes in the intriguing formulation of Wolfgang Streeck, whereby 'capitalism vanish[es] on its own, collapsing from its internal contradictions, and not least as a result of having vanquished its enemies'.[27] What follows the disappearance of capitalism after its 'final crisis, now underway', in Streeck's conception, is a 'lasting interregnum … a period of prolonged social entropy, or disorder'.[28] The devouring in this case would be the undermining of capitalist society's institutions, producing a '*de-institutionalized* or *under-institutionalized* society, one in which expectations can be stabilized only for a short time by local improvisation, and

which for this very reason is essentially ungovernable.'[29] Quite what this un-governability would look like (compared with today) is not stated, but things do not sound in any way appealing or hospitable in a near-future society that Streeck envisions to be made up of:

> collectively incapacitated *individualized individuals,* as they struggle to protect themselves from looming accidents and structural pressures on their social and economic status. Undergoverned and undermanaged, the social world of the post-capitalist interregnum, in the wake of neoliberal capitalism having cleared away states, governments, borders, trade unions and other moderating forces, can at any time be hit by disaster; […] With individuals deprived of collective defences and left to their own devices, what remains of a social order hinges on the motivation of individuals to cooperate with other individuals on an ad hoc basis, driven by fear and greed and by elementary interests in individual survival. Society having lost the ability to provide its members with effective protection and proven templates for social action and social existence, individuals have only themselves to rely on while social order depends on the weakest possible mode of social integration*, Zweckrationalität.*[30]

This emerging human trauma is pitched at a high level of abstraction and so is short on concrete specifics. This is understandable. And to be fair to Streeck, the world around us does contain foreshadowings of such a dystopia today. In other words, this *does* sound like a plausible extrapolation of the world at present—a world where the dominance of an analogue historical materialist dialectic no longer applies.[31] But Streeck's call for the revival of a 'public mission of sociology', beginning in the university, reads like traditional critical political economy; a twentieth-century analysis for twenty-first century social, cultural and economic malaise. Things have become so bad in Streeck's depiction of the final crisis, that it is difficult to see what, if anything at all, could rescue the situation for democratic or socialist forces. We see further evidence of this narrowness of scope in Streeck's classical political economy in, for example, the lack of an environmental perspective. The inclusion of such a perspective is already mainstream elsewhere, and it is at the centre of an important collection on capitalism's crises in Jason W. Moore's *Anthropocene or Capitalocene*?[32] Here, too, however, theorisation or identification of a politics of resistance, or what would in 2019 manifest spontaneously—through social media—as the global 'extinction rebellion', is downplayed in favour of what Moore terms 'an evolving conversation'.[33]

I will suggest another scenario for the future of the mutation of capitalism. It forms a tangent to Streeck's analysis in some respects, but it suggests an approach that identifies a different political priority to his 'public mission of sociology'. There is little doubt that capitalism undermines the very conditions of its own possibility. Financialisation, environmental sustainability, and David

Harvey's 'limits' to the physical space within which capital can be profitably deployed, all constitute serious and ongoing risks for capitalism's viability. Whilst these risks may be 'managed' sufficiently to keep the system in a state of life-support for some unknown time into the future, there are deeper aspects of the 'devouring' logic that signal risk not only to the relative political 'stability' and 'order' that successful accumulation strategies need, but also to the foundations for future social democratic or socialist alternatives to capitalism. Digitality undermines two of capitalism's deepest and most important 'moderating forces': modernity and the Enlightenment. However, these are much more than stabilising ballast for capitalism; they have been the indispensable supports upon which a functioning capitalism has rested in Europe and North America since the eighteenth century. Let us look at them in their turn.

Modernity, as Jean-François Lyotard wrote in *The Postmodern Condition*, was the grandest grand narrative of them all. It was a discourse that contained many of the sub-narratives that made it possible for capitalism to function through other discourses such as rationality and science. Moreover, it acted as a check upon its intrinsically destructive logic through further modern discourses such as democracy and literacy. Enlightenment thought overlaps with modernity's narratives and in some important senses is synonymous with them. But it was less connected to capitalism in a practical, enabling sense, and evolved with capitalism and modernity to function as the metaphysical point in the triad. Like modernity, Enlightenment thought was formulated and enacted by numberless thinkers over many generations. These might agree or not with this or that aspect of Enlightenment's supposed character. Immanuel Kant, for instance, described a quality of Enlightenment as 'Having the courage to use your own understanding!'[34] Whereas the Frankfurt School saw *Zweckrationalität* as Enlightenment's chief articulation, something that increased in its intensity as technology increased in its complexity.

Implicit or explicit in many accounts is that modernity and Enlightenment run in parallel with capitalism, existing in essentially a different sphere from it and intersecting mainly in times of crisis or opportunity (for capitalism).[35] However, Nancy Fraser writes in *Capitalism: A Conversation in Critical Theory* that democracy—an idea and a process that has aspects of both modernity and Enlightenment within it, and so comprises two points of the triad simultaneously—is 'inherently in tension' with capitalism. She goes on to contradict this idea somewhat by stating in the next sentence of her essay that the tension 'appeared to be compatible [but] only briefly, in the exceptional period following World War II' when the golden age of social-democratic capitalism in the West produced an extraordinary few decades of growth, profits, jobs and relative social harmony.[36] The 'tension' that Fraser speaks of is in fact *inherent* (to use Fraser's own term in its more exact meaning) in that it is fundamentally constituting of the relationship between modernity, Enlightenment and capitalism to form an interrelationship that allowed each to be what they became. The tension is both inherent and dynamic, and since the eighteenth century modernity

and Enlightenment thought co-evolved to be the stabilisers for an ultimately unstable social relation based upon exploitation, class-based repression and expropriation. The triad of modernity, Enlightenment and capitalism were *always* and necessarily compatible because they emerged as historical forces that were the social, economic and intellectual expressions of the same turbulent post-Reformation milieu.[37] Far from being 'only briefly compatible', modernity would be unrecognisable without capitalism.[38] And in the case of the Enlightenment, its foundations as a discourse were laid by thinkers who were themselves often nascent capitalists (capitalists before the term was coined), or were supporters of it, such as Benjamin Franklin and Adam Smith. Moreover, many of its concepts of progress and universality dovetailed well with a certain strain of capitalist ideology. And, as Terry Eagleton reminds us, the term 'ideology' itself was invented by the 'ideologues of the French Enlightenment.'[39]

It follows that if the mutation of capitalism devours its children then it devours its siblings, modernity and Enlightenment, too. That capitalism undermines modernity and Enlightenment is in itself not such a radical proposition; this is essentially what the quotation from Streeck, for example, says. The difference, however, lies in the emphasis on the need to recognise digitality as having transformed capitalism, as having caused a mutation within it, and it is through this recognition that we must analyse and consider any 'end of capitalism' scenarios. Through the adaption and extension of Gehlen's 'circle of action', the ancient technology relationship that is the core of our analogue essence, we find insight into the effects of widespread, permeating and networked digital technology. Digitality separates humans from this original dialectic, thereby alienating human action from the creation of a human-scaled and humanly-recognised natural environment through analogue techniques of 'strengthening', 'facilitation' and 'replacement'.[40] Under digitality the alienation from the essence of who we are as analogue beings is much more radical than Marx or Lukács imagined, because digital technology represents a little-understood new category of technology. Moreover, through the use of Jaeggi's work on alienation we find a new way to think about digitality: as a 'relation of relationlessness', where we have fewer meaningful and humanly expressive bonds with technology. Within digitality we are becoming adjuncts to an increasingly autonomous and automated capitalism, a system so complex and opaque in its new digital processes that it is no longer sufficiently understood as a totality by anyone.

How does day-to-day digitality do this? How does the mutation of capitalism destroy the very conditions ensuring its survivability, killing its host, as a cancer would, and thereby ultimately killing itself? Much of the theorising and evidence-gathering about the 'end of modernity', for example, has already been done, and theorists such as David Harvey, Jean-François Lyotard, Ihab Hassan,[41] Scott Lash and John Urry,[42] and Fredric Jameson,[43] to mention only a few, did the spadework of identifying the transformation in capitalism, and by extension, in modernity, as it occurred in nascent form around them in

business, in arts, literature, architecture and, centrally, in my view, in production systems during the 1970s and 1980s. These analysts of western modernity in its eclipse identified the major economic, cultural and social aspects of the shift: the now familiar tropes of 'fragmentation', 'progress', 'relativism', Lyotard's 'incredulity towards metanarratives',[44] and so on.

My contribution here is to focus on the role of digital technology, without which the demise of classical modernity—and the rise of economic globalisation which generalised the demise—would not have been possible. Digitality's effect has been both misrecognised and underestimated. This is partly due to the fact that media and technology theory were in their infancy when Harvey et al. wrote; partly it is because the then not-very-porous disciplinary frontiers between critical theory, political economy, cultural studies and literary studies left each under-equipped to appreciate the changes underway; and partly it is due to a dogmatic strain in Marxism as a political ideology that placed a narrow reading upon social, economic and cultural phenomena. And despite his 'spatial' contribution to the operation of capitalism, David Harvey is most culpable here, with his extraordinary influence as a Marxist thinker in the Anglosphere having a particularly damaging effect on our understanding. By foregrounding the concept of digitality, however, it is possible to see now that digital technology is a new category of technology and that its newness and rapidity of spread has left us generally unprepared, intellectually and as users, to see the digital and its networking function as requiring a careful analysis in comparison to that which it was supplanting. If one accepts this concept of digitality, then the prospects for capitalism, and more importantly for any social-democratic alternatives to it, are worse than we thought—and with a different locus.

The undermining of the Enlightenment legacy has many intersections with the fate of modernity. To help appreciate the extent of this I draw here upon Tzvetan Todorov and his work *In Defence of the Enlightenment*.[45] In it he usefully reduces all Enlightenment thought to three main (and interrelated) elements that 'produce countless consequences of their own'.[46] These are: autonomy; the human end purpose of our acts (humanism); and universality. Todorov's distillation of the Enlightenment's basic components allows us to see with more sharpness how digitality does its work. So, for example, as Kant wrote in his 1784 work *What is Enlightenment?*:

> If we are asked, 'Do we now live in an enlightened age?' the answer is, 'No', but we do live in an age of enlightenment. As things now stand, much is lacking which prevents men from being, or easily becoming, capable of correctly using their own reason … with assurance and free from outside direction.[47]

We do not live in an enlightened age, but neither do we any longer live in an age of enlightenment, nor enjoy much of its inheritances. Individual autonomy, becoming anyway under liberalism only a pale approximation of the individual

'freedom' that was for Kant a precondition of Enlightenment, is being undermined by the loss of analogue freedom—undermined by automation and by a post-modern alienation that flows from digitality's effects. With the diminishment of this basic precondition, it becomes now extraordinarily difficult to situate humanity at the centre of the purpose of our actions. So-called liberal individualism, which had some communitarian undergirding until relatively recently,[48] is itself transforming. Powered largely through social networks, it produces a new form of mass-individuated narcissism: an alone-together agglomeration of millions connected by fibre-optic cables and Wi-Fi, and for whom the illusory Californian Ideology of independence, uniqueness, personal choice, and self-realisation seems achievable. In this context, the politics of identity, or 'identity liberalism' as Mark Lilla terms it, becomes the new default political position. Here, younger and digitally native generations increasingly view themselves first and foremost as unique individuals, who will reach out at some point (or not) to an identity community (often online) in which they see themselves reflected as part of a wider virtual community.[49] Ideas of class, of social solidarity, of liberal democracy and of a humanism that puts the collective prior to the individual, are considered as outdated tropes from a totalising and authoritarian modernity that produced the racist and homophobic cultures that they seek to escape. Considered, that is, by those who actually consider it. In this sense Todorov's Enlightenment component of 'universality' has, ironically, been hollowed out and turned on its head by digitality. The Enlightenment universal has become a *digital* universal, a universal homogeneity of post-modern autonomy and post-modern individualist humanism.

Democracy, in its sundry world forms, as a process and as an institution, gets caught up in this general diminishment of capitalism's support structures. Digitality undermines the function and constitution of institutional political parties that, in Europe and North America, were founded and grew in tandem with Enlightenment thought, modernity and capitalist industrialisation. Parties that reflected class interests in an evolution of over 200 years, now reflect little beyond their dwindling memberships and the (usually) pro-business ideologies of the party elites. Corporate capture by what Robert Reich (himself a 1990s Clinton-era insider, and therefore close to much of the action) calls 'supercapitalism' is either the reality or the imminent danger for institutional political parties in Europe and North America.[50] If not much else, Reich's book is at least a useful marshalling of facts and figures from an insider's sources. However, the thesis is overblown, portraying as it does the many depredations of capitalism upon democracy as evidence of capitalism's power and a burgeoning rule-the-planet vitality. In fact, capitalism's capture of democracy is one more aspect of its decline. Bourgeois democracy, with its class-based parties and organised labour, could exist in dynamic tension with the business and middle class that I referred to above. They could act as a check upon each other when necessary. For example, in the US in the 1930s, and across much of Europe after the Second World War, bourgeois governments would legislate to control the

more extreme impulses of capitalism in respect of technology use, wage levels and working conditions, tax, social security, trade policy and so on. Things are different now. The unprecedented influence of big business on democratic institutions can be seen as a response to the crisis of accumulation that drove capitalism toward globalisation. The need to shift accumulation to the wider, global scale, especially in the Anglosphere, entailed that governments abrogated much of their democratic power to the needs of business. And they did this notwithstanding the threats to the national and social interest through the rust-belting of swathes of manufacturing, of steel production, heavy industries, and so on, as the externalities of neoliberal globalisation. Not only will this fail to overcome the problem of capitalism's sustainability, but it has led to the preliminary phase of 'ungovernability'[51] that Streeck writes about. And this, in turn, will lead inevitably to a failure by the captured institutions of governance to create an environment of stability and relative order that the process of accumulation requires—in politics and society as well as in the economy.

Digitality now has its own political dynamic, a problematic one for democracy. Much of the political energy of many young people, intellectuals, minorities and idealists of all sorts, has migrated online. A couple of generations' worth of people under forty have known hardly any other kind of political activity. Nonetheless, digital politics in virtual time and space has a momentum and a temporality (a speed of process) that differs radically from the offline world of parliaments and congresses. The political theorist Sheldon Wolin spotted this asynchrony as early as the mid-1990s. He wrote that 'political time is out of synch with the temporalities, rhythms, and pace governing economy and culture'.[52] The temporal disconnect between politics and economy was often superficially considered as a process where 'politics always plays catch-up' to technological developments, such as the ethical gaps that emerge with advances in medicine, or in privacy issues. However, the damaging effects of digitality upon the polities of the world were part of a creeping process of disconnect and decay. For at least twenty years in the West, offline politics has retreated into a netherworld peopled more than ever, through a rigid selection bias, by a class of career politicians: besuited men and women, often from law schools or business, who spend large parts of their careers within institutional bureaucracies and as a result have dwindling connection to their constituents or wider public—citizens who are anyway too busy establishing their own political communities online.

Referring to the activists of Occupy Wall Street and other such movements around 2011–12, Jodi Dean decried the 'quick fix of digital politics', as practised by those millions disaffected by political institutions, as destined to fail. This is because, she argues, the time-consuming and *longue durée* of face-to-face political work, of organising, of planning, of agreed-upon policies, and of hierarchies of roles—are missing, or are unable to properly function, in cyberspace.[53] That digitality is both asynchronous and antithetical to democracy was spectacularly and disastrously exposed just as Dean was writing. The Arab

uprisings of 2011 were widely regarded at the time as a triumph of a revitalised democratic impulse through digital media. Autocracies tumbled or trembled as millions coordinated protests through Facebook and Twitter and occupied the streets and squares of the region. But these activists had thrust themselves into an accelerated digital sphere where their Enlightenment-derived aspirations, wherever they may have existed, were too far out of sync with both the temporality of their ideas and the political realities of their region. The political analogue of nature's grassroots could not find the soil in which to strike, nor the time for its cultivation. There were no political green shoots to grow because there is no equivalent for the earth's soil in the virtual network. Moisés Naím generalised this same point in 2014:

> …a powerful political engine is running in the streets of many cities. It turns at high speed and produces a lot of political energy. But the engine is not connected to wheels, and so the 'movement' doesn't move. Achieving that motion requires organisations capable of *old-fashioned* and permanent political work that can leverage street demonstrations into political change and policy reforms. In most cases, that means political parties.[54]

In the West, the undermining of the roots of capitalism's sources of stability and legitimacy has left it in a precarious state. The political institutions that are needed as either capitalism's sustenance as part of the historical triad, or as its antithesis, that is to say as the foundations for an alternative to it, are withering or ineffectual today. In China, or Russia, to take two salient examples, democratic political institutions are either rejected altogether, as in the case of China, or are stymied at every turn by a post-Soviet political culture of authoritarian gangsterism.[55] Further afield, the traction of democracy begins to slide in countries such as Hungary, Poland, the Philippines, Nicaragua, Venezuela and Turkey, where strongmen either take power, or are given it in the populist turn of political fear that has seeped into the civil societies of Europe, North America, Latin America, South East Asia and elsewhere.

How Will Capitalism End?

Perhaps now more than ever it is vital to reflect, as Harvey, Streeck, Fraser and many others have done, on 'how will capitalism end?' However, we need first to prioritise. And by that I want to say something different: that is, to argue that the priority target, for those who seek a more democratic and environmentally sustainable world, is not capitalism, nor is it the project of reviving or creating an alternative to it. These can wait. These have to wait. The priority must be the process of digitality that has grown up so quickly as to envelop us, invisibly, and largely without our realising it. It is not a classical Weberian Iron Cage of

Zweckrationalität that traps us, however. We are instead being *isolated* from the analogue universe by a logic that is growingly autonomous and works against the humans who have always been its antithesis. And we are being *alienated* by machines that are conceived and implemented and finessed and made more powerful every day to replace us as the source of labour, but which at the same time extract value from us in our assigned role as both subject and object of digitality. We have to recognise what has happened to modernity, to Enlightenment legacies, and to capitalism. We have to recognise that the information technology 'revolution' has been just that—an actual *social revolution*, in the fullest sense that Marx supposed, and not simply the transformation of economic processes through machines.

Contemporary thinking that utilises Marxism, political economy, critical theory, media theory, or combinations of these and more, often repeats the familiar tropes of hope, or justice, or the need to organise at the grassroots. Often such thinking will seek to freshen or contextualise the theory by arguing for a new relevance of Gramsci, or Deleuze, or Žižek, or whoever seems to be the best recent interpreter of Marx, and who has the answers for us. Moreover, such thinking (and David Harvey's canonical treatment of Marx's original work is salient here) can often parse Marx over and over again—seeking to find echoes of our present condition in the conditions of late-Victorian capitalism. The effect of such research is to make you feel, as you read it, that you could be living in the 1960s, or 1970s, in terms of their sources and in the application of theory.

Or you could feel confused. Slavoj Žižek is a slightly different Marxist and is a good example of how an essentially traditional thinker adapts to a global audience in the age of the internet—but in a way that does little to further our understanding of the present conjuncture. In his 2017 work *The Courage of Hopelessness: Chronicles of a Year of Acting Dangerously*, Žižek excoriates what he seems to accept as a victorious capitalism. To try to make sense of it, or maybe to give the impression of erudition in terms of his evident command of social theory, Žižek draws from a sprawling array of narratives—a cacophony from popular culture and cultural studies, reportage and political economy, international relations and psychoanalysis—and brings these to his argument. And the argument is that if we imbibe his brand (and he is a media brand) of knowledge, then we can face the situation of hopelessness with 'courage'. But that there are no guarantees, not even the consolation of hope, is what makes Žižek something of an outlier in left theory. Our reward for having the courage to recognise our hopelessness is the *knowledge of it*—and through this to realise that any light at the end of the tunnel is 'probably another train approaching'.[56] We must have the courage to confront this too, he insists; to have the fortitude to embrace the catastrophe, and so to still be there, and ready, for when the extended downturn somehow becomes an upturn. Actually, what Žižek provides is a form of Gothic entertainment, black humour instead of a diagnosis, a horror film for the jaded about the times we live in, from a show-off director who knows his audience and his subject(s) too well.

Judith Butler judged this intellectual trend earlier. She sees an almost drama-turgical 'who said what, and who said what back' process among those inter-ested in Marxism, where the reader can sit back and enjoy the tranquilliser of endless theory and outrage, with the effect being that activist Marxism is nulli-fied by the focus on culture, and culture nullifies itself by embracing relativism. She writes:

> I propose to consider two different kinds of claims that have circulated recently, representing a culmination of sentiment that has been build-ing for some time. One has to do with an explicitly Marxist objection to the reduction of Marxist scholarship and activism to the study of culture, sometimes understood as the reduction of Marxism to cul-tural studies. The second has to do with the tendency to relegate new social movements to the sphere of the cultural, indeed, to dismiss them as being preoccupied with what is called the 'merely' cultural, and then to construe this cultural politics as factionalizing, identitarian, and particularistic.[57]

And so Marxism devours itself. Just like the capitalism with which it shares so much of its modern and Enlightenment DNA. And in so doing it impoverishes or delegitimates any basis for an adaptive theory-building that could incorpo-rate new ways to think about technology—both as media and as the essence of what it is to be human and thereby intellectually equipped to see the analogue–digital question as one that is not only legitimate, but urgent.

Again it is Streeck, of the increasingly exclusive *New Left Review*, who pro-vides more evidence of the symptomatic misdirection of theoretical energy. In Streeck, a potentially insightful analysis is rendered essentially fruitless through its inattention to the actual effects of digitality. At the end of his book, after making his case for the need for a 'public sociology', beginning in the uni-versity, to arrest the collapse of capitalism and the simultaneous destruction of its ill-prepared antithesis, he sums up the issues:

> For sociology to become truly public sociology … it must get ready for the moment in which the foundations of modern society will again have to be rethought… That moment … is approaching, and when it will be here (sic) sociologists should have the intellectual tools at hand for so-ciety to understand what is at stake. […] we cannot begin early enough to challenge the intellectual hegemony of contemporary economics over contemporary understandings of economy and society. […] it is high time for the mainstream of the discipline to remember its roots and join the battle, even though we know that the capitalist reorganisation of the university that is underway everywhere is not least designed precisely to eliminate critical reflection, for the all-powerful purpose of economic efficiency.[58]

The reliance on a single academic discipline to rescue 'modern society' is telling. Even more telling is that there is still no mention of technology, notwithstanding Streeck's identification of the damaging instrumental 'efficiency', largely computer-driven, that has been let loose upon the universities. There is no comment either, on media—until the book's final sentence when he delivers what is in effect a suicidal blow to his general thesis:

> But then, if public sociology cannot make itself heard in *this* public, how can it [the university] hope ever to be noticed in the world of YouTube, Facebook, Fox TV and the BILD-Zeitung?[59]

In his own reckoning, universities are no longer islands of critical reflection, but profit-seeking organisations that are as riddled with digitality as any other institution or realm of public life. Leaving this sentence till last seems to indicate that Streeck at some level of awareness *knows* where the real problem—and therefore real priority—lies. But either through habit of thinking instilled over the length of a whole career, or through a pervading indifference to technological change, which he sees almost as a neutral force of nature,[60] he is unable to make the logical next step, to consider that the *actual* 'foundations of modern society' lie at the deepest level in the human relationship with technique.

Digitality is not primarily about Facebook, or Google or any of the other tech giants. These are only expressions of the logic of computing in the service of capitalism given much freer rein by democratic institutions. To 'punish' these corporations as the EU and other countries have sought to do, by imposing large financial penalties, or by legislating that they make their platforms and their algorithmic logic more transparent, is no solution either. Litigation can be, is, and will be drawn out for years by corporations who can easily afford the costs. And when final verdicts are delivered in cases of 'abusing market dominance', such as for Google, then the fine will likely be reduced, or easily absorbed by immense company profits. And by that time the technological and market context will probably have shifted (in the tech company's favour) anyway. Neither is digitality primarily about the near-future explosion of machine-learning robots, or a far-future tipping-point when artificial intelligence becomes a reality. These capitalist destinations are where the signposts are pointing, but this is not the immediate threat either. Digitality is about what the logic of digital technology, in its rudimentary and more sophisticated applications, is doing today—to individuals, institutions, economies and societies. A new form of alienation, an 'alienation of the technological everyday'[61] based upon a new category of technology, is the first problem. And having already theorised this alienation as the core effect of the mutation of accumulation it is still necessary to detail this alienation at its everyday level expression.

I will make a final point about the seemingly habituated need to confront capitalism in the traditional way, as many Marxist, socialist, and progressive analyses are still inclined to do. In their 2018 book *Capitalism: A Conversation*

in Critical Theory, Nancy Fraser and Rahel Jaeggi[62] devote a section, 'Contesting Capitalism', to how critical theory should respond to capitalism's destructive malaise, and to the populist turn it has generated in politics over the last fifteen years. Jaeggi asks Fraser: given we are faced with a collapsing neoliberalism, 'what do we do now?' I quote Fraser's reply at some length, as it is revealing:

> My instinct is to seize the moment and go on the offensive. … [N]either hyper-reactionary neoliberalism nor progressive liberalism will be able to (re)establish a secure hegemony in the coming period and … we face a chaotic, unstable interregnum, which … is fraught with danger. Nevertheless, there could be an opening now for the construction of a counterhegemonic bloc around the project of *progressive populism*. By combining in a single project an egalitarian, pro-working-class economic orientation with an inclusive non-hierarchical recognition orientation, this formation would have at least a fighting chance of uniting the *whole* working class: not just the fractions historically associated with manufacturing and construction, whom reactionary populists and traditionalist leftists have mainly addressed, but also those portions of the broader working class who perform domestic, agricultural, and service labor – paid and unpaid, in private firms and private homes, in the public sector and civil society—activities in which women, immigrants, and people of color are heavily represented. By wooing both segments, the expropriated as well as the exploited, a progressive populist project could position the working class, understood expansively, as the leading force in an alliance that also includes substantial segments of youth, the middle class, and the professional-managerial stratum.[63]

'Optimism of the will' was one of Gramsci's more unfortunate phrases. With it, theorists of a certain disposition are always able to brush uncomfortable realities to one side. Adorno was less vague, but also less optimistic when he said that his critical theory provides the diagnosis, and that others should provide the prognosis that may logically follow. Fraser here provides both, and to inadequate effect. Nowhere in this passage, and nowhere in the entire 'conversation' with Jaeggi, is there mention of computers, information technology, media, networks or technological change more generally. Moreover, there is seemingly no awareness of the effects of these as an indispensable part of a neoliberal offensive since the 1970s against working class solidarity, party organisation and so on. A wider political effect has been the growth of a fickle and shifting ideological commitment by millions on the left—and an expanding identitarianism that is at the root of the populist turn and is the toxic antithesis of the 'progressive populism' that Fraser calls forth as the solution.

   This is important: Fraser is one of the leading diagnosticians in Western political and critical theory, and yet delivers a prognosis that could have been written in 1988 instead of thirty years later. Such analysis is essentially conservative

and has to be seen as another symptom of Marxist and progressive theory devouring itself. Under siege and tormented by a lack of clear signals that capitalism's sliding chaos is an historical opportunity of a different kind, thinkers revert instead to orthodoxy, to optimism, to pessimism, or to black humour in the case of Žižek the contrarian. The novelty of digitality should indicate that it is necessary to shun the extinct intellectual conflicts and the fake optimism, and reach, for now, to another mode of political thinking that is rejected in more radical circles, and that is *reformism*. Reformism would begin by prioritising digitality, not capitalism, as the immediate danger. To understand and control digitality would have the initial effect of saving capitalism from itself. But such a reformism is in fact radical, and it would have the longer-term effect of re-creating the social, economic and political bases of capitalism's antithesis. This would be a project for the rearticulation of the sensibilities and attitudes of modernity (a new modernity) to replace the desolation of the present postmodernity. If we fail in this then Streeck's interregnum will continue to unfold in its hellishness, and Žižek's hurtling train will keep on towards us. And as we hope and wait and theorise yet more, real social change or social revolution will have become a chimera for the dwindling intellectual left to continue to be optimistic about. By then the illusion will be in danger of becoming permanent because the modern social foundations of class and politics needed for the articulation of actual progressive change will have gone.

Notes

1   Slavoj Žižek (2017) 'Ideology Is the Original Augmented Reality' *Nautilus* (54). http://nautil.us/issue/54/the-unspoken/ideology-is-the-original-augmented-reality

2   David Harvey (1982/2007) *The Limits to Capital*. London: Verso, p.156.

3   Ibid., p.208.

4   Ibid., p.159.

5   Noel Castree (2007) 'David Harvey: Marxism, Capitalism and the Geographical Imagination', New Political Economy, 12(1), 97–115, p.103.

6   See the discussion in Chapter I, pp.6–7.

7   See the discussion in Chapter 2, p.18.

8   Karl Marx and Friedrich Engels (1976) 'The Manifesto of the Communist Party' in *Selected Works*. Moscow: Progress Press, p.40.

9   Cited in Deborah Kelsh, 'Cultureclass' in *Class in Education: Knowledge, Pedagogy, Subjectivity*. Deborah Kelsh, Dave Hill, Sheila Macrine (eds.), London: Routledge, p.24.

10 Karl Marx (1976) *Capital Volume 1*. Harmondsworth: Penguin, p.39.

11 Karl Marx (1973) *Grundrisse*, M. Nicolaus (trans.). London: Penguin., p.538.

12 Dan Schiller (2000) *Digital Capitalism*. Cambridge, Mass: MIT Press, p.xvi.

13 Dwayne Winseck (2011) 'The Political Economies of Media and the Trans-formation of the Global Media Industries' in *Political Economies of Media*, Dwayne Winseck and Dal Yong Jin (eds.) New York: Bloomsbury, p.23.

14 The term is from Roy Bhaskar's *Dialectic: The Pulse of Freedom* (2008) (Abingdon: Routledge) and is derived from Foucault as a way to describe the totalising drive toward control that networked information technologies now make possible. See p.255.

15 The tech companies (if not the data carriers) dream of a world of total and free and powerful wi-fi: Project Loon is a balloon-based system by Google while Facebook has opted for a drone-based solution. Many more govern-ment bodies and local independent initiatives are oriented toward this goal.

16 Dwayne Winseck (2011) 'The Political Economies of Media and the Trans-formation of the Global Media Industries'

17 Cited in David Lyon (2005) *Surveillance Society*. Buckingham: Open University Press, p.91. See also Shoshana Zuboff's *The Age of Surveillance Capitalism: The Fight for the Future at the New Frontier of Power*. New York: Profile Books (2019)

18 Daniel Bell (1962) *The End of Ideology*. New York: The Free Press.

19 A good example of the atmospheric becoming actual, and with the user still oblivious to the process, came eventually to public awareness in 2015. The British university admissions system (UCAS), which has a very large database of personal student information, sold that information, legally, without the knowledge or permission of the students, to Vodafone, O2 and Microsoft, amongst others, for £12 million. See Lucy Ward (2014) 'Ucas sells access to student data for phone and drinks firms' marketing' *The Guardian Online*: https://www.theguardian.com/uk-news/2014/mar/12/ucas-sells-marketing-access-student-data-advertisers

20 Karl Marx (1976) *Capital Volume* 1. p.742.

21 Julia Ticona, Alexandra Mateescu and Alex Rosenblatt (2018) *Beyond Dis-ruption: How Tech Shapes Labor Beyond Domestic Work and Ridehailing*. Data & Society Institute: https://datasociety.net/wp-content/uploads/2018/06/Data_Society_Beyond_Disruption_FINAL.pdf

22 *Ibid*. p. 2 and *passim*.

23 See Paul Karp (2018) 'Amazon's labour-hire deal and the impact on col-lective bargaining' *Guardian Online* https://www.theguardian.com/australia-news/2018/jan/20/amazons-labour-hire-deal-and-the-impact-on-collective-bargaining. Responding to a question by the reporter on the need for third-party labour hire, an Amazon spokesperson in Australia was quoted as saying that this was necessary: 'to enable us to move quickly, access talent and manage variations in customer demand'

24 Nancy Fraser and Rahel Jaeggi (2018) *Capitalism: A Conversation in Critical Theory*. Cambridge: Polity, p.13.

25 Fraser and Jaeggi's otherwise excellent and valuable discussion is none-theless indicative of the continuing problem of disciplinary boundaries

remaining in place. As with Wolfgang Streeck, whom I discussed in Chapter One, nowhere in their book is there more than a passing reference to media (internet, social media, etc.) and nothing—apart from a tantalizing reference (p.37) to digitality's commodification prowess—about the role of technology as having a central function within capitalism.

26   See Karl Marx (1854) 'Peuchet: On Suicide' in *Gesellschaftsspiegel*. https://marxists.catbull.com/archive/marx/works/1845/09/suicide.htm

27   Wolfgang Streeck (2016) *How Will Capitalism End?* London: Verso, p.13.

28   Ibid.

29   Ibid., p.14.

30   Ibid.

31   It should be noted, however, that the post-2008 economic crisis and the backlash against neoliberal globalisation have meant that some of the 'moderating forces', such as the nation state, that Streeck speaks of, are being reconstituted in the US, in a good portion of Europe and elsewhere, as 'nationalist-populist' states that may no longer be such a moderating force for neoliberalism or for capitalism's globalising logic. Wendy Brown, for example, in her *Walled States, Waning Sovereignty* (2010) (New York: Zone Books) shows how physical walls are proliferating at borders around the world as a populist-nationalist reaction to borderless globalisation.

32   Jason W. Moore (2016) *Anthropocene or Capitalocene? Nature, History and the Crisis of Capitalism*. Oakland, CA.: Kairos Books

33   Ibid., p.5.

34   Immanuel Kant (2013) *Immanuel Kant's Political Writings*. H. S. Reiss (ed.) Cambridge: Cambridge University Press, p.54.

35   An example of an explicit separation we see in Ellen Meiksins Wood's 'Capitalism or Enlightenment?' in *History of Political Thought* 21(3), 405–426. Wood is quite clear about it when she argues that 'capitalism represents a different historical stage, which transcended or negated the Enlightenment. It is the product of a distinct historical process' (p.408)

36   Nancy Fraser and Rahel Jaeggi, (2018) *Capitalism: A Conversation in Critical Theory*. p.79.

37   See Sascha O. Becker and Ludger Woessmann (2009) 'Was Weber Wrong? A Human Capital Theory of Protestant Economic History', *Quarterly Journal of Economics* 124(2), 531–596.

38   Marshal Berman (1982) *All That is Solid Melts into Air: The Experience of Modernity*. London: Verso.

39   Terry Eagleton (1991) *Ideology: An Introduction*. London: Verso, p.5.

40   See Chapter Two.

41   Ihab Hassan (1985) 'The Culture of Postmodernism' in *Theory, Culture and Society* 2(3), 119–132.

42   Scott Lash and John Urry (1987) *The End of Organised Capitalism*. Cambridge: Polity Press.

[43] Fredric Jameson (1995) *Postmodernism, Or, The Cultural Logic of Late Capitalism*. London: Verso.

[44] Jean-François Lyotard (1979) *The Postmodern Condition: A Report on Knowledge*. Manchester: Manchester University Press, p.xxxiv.

[45] Tzvetan Todorov (2010) *In Defense of the Enlightenment*. London: Atlantic Books.

[46] Ibid., p.5

[47] Immanuel Kant (2013) *Immanuel Kant's Political Writings*, p.57.

[48] Robert Putnam's *Bowling Alone* (2000) (New York: Simon & Schuster) was one of the first to spot what he saw as a 'decline of social capital'.

[49] Mark Lilla (2017*) The Once and Future Liberal*. New York: Harper.

[50] Robert Reich (2009) *Supercapitalism: The Battle for Democracy in an Age of Big Business*. London: Icon Books.

[51] Streeck, *How Will Capitalism End?* p.14.

[52] Sheldon Wolin (1997) 'What Time is it?' *Theory and Event* 1(1). https://muse.jhu.edu/article/32440

[53] Jodi Dean (2012) 'Occupy and UK Uncut: The Evolution of Activism' *The Guardian Online* https://www.theguardian.com/commentisfree/2012/dec/27/occupy-uncut-evolution-activism

[54] Moises Naím (2014) 'Why Street Protests Don't Work' *The Atlantic* April 7. http://www.theatlantic.com/international/archive/2014/04/why-street-protestsdont-work/360264/

[55] For recent works on this, see Elizabeth Economy's *The Third Revolution: Xi Jinping and the New Chinese State.* (2018) Oxford: Oxford University Press; and Peter Pomerantsev's *Nothing Is True and Everything Is Possible: The Surreal Heart of the New Russia.* (2015). London: Public Affairs.

[56] Slavoj Žižek (2017) *The Courage of Hopelessness: Chronicles of a Year of Acting Dangerously*. London: Penguin, p.xii.

[57] Judith Butler (1998) 'Merely Cultural' *New Left Review*, 1/227, January-February, 33–44.

[58] Streeck, *How Will Capitalism End?* pp.250–251.

[59] Ibid., p.251. (emphasis in original)

[60] Ibid., p.26–27.

[61] A potential-filled phrase from Leonardo Impett, writing in the *New Left Review* in 2018. It comes from his dismissive review of Max Tegmark's *Life 3.0: Being Human in the Age of Artificial Intelligence.* Impett critiques the book well, but from the standard Marxist perspective, based on the simple claim that AI does not exist, and will not exist for a very long time to come. Tegmark is engaged in science fiction, a kind of escapism, Impett claims (correctly, in my reading of the book) whereas what he *should have done* is to present 'a social critique of the present through the alienation of the technological everyday' (p.159). The pregnant sentence is left hanging by this researcher in the digital humanities, who implies that Tegmark has

not 'read his Marx'. Impett has perhaps read too much of it in the *New Left Review* vein, and so the alienation he refers to is of the traditional kind and therefore needs no elucidation in the context of the 'technological everyday', because it is the same as it has always been from the time of Marx himself.

62 Nancy Fraser and Rahel Jaeggi (2018) *Capitalism: A Conversation in Critical Theory*. The book is a 'conversation' between two of the foremost critical theorists of our time, who have been rightly influential in arguments across a whole range of critical issues, and Jaeggi's work on alienation has had a deep impact upon my thinking in this book and elsewhere. But in this 225-page exposition, there is barely any mention of media, or technology, or the internet, etc. The index lists fourteen entries with the word 'social' as prefix ('social order', 'social struggles', and so on) but nothing on 'social media', a technological form that has had an immense effect upon the 'social' at almost every register.

63 Ibid., pp.216–217.