Getting nowhere fast: A teleological conception of socio-technical acceleration

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'More than a hundred years before it was fully manifest,' observes Walter Benjamin (1999: 394), 'the colossal acceleration of the tempo of living was heralded in the tempo of production. And, indeed, in the form of the machine'. Benjamin, who perceives in his study of the increasingly decrepit arcades of Paris a gradual compression of space and time that could only be understood as a symptom of the process of modernization, was one of the first to detect a phenomenon now widely recognized: that time appears to be accelerating. Just as importantly, he views this acceleration as a product of the increasingly mechanical technicity of the industrial era. In our present epoch, however, it is not so much industrial machinery as the digital processing and transmission of information that informs our temporal rhythms.

What I wish to argue in this paper is that in order to understand this acceleration, as well as posit alternatives to it, we must think it in teleological terms. That is, rather than viewing speed as a goal in itself, it must be viewed as a final cause that determines our understanding of such goals. Speed is not the end of a process, but is the ground upon which that process is predicated. What this means is that progress - that being the aiming for specific, calculated goals - can be divorced from the blind acceleration that we presently experience. In order to avoid naturalizing 'the blurring of perception caused by acceleration' (Virilio 2008: 116), it is imperative that we be able to argue that progress and acceleration are not synonymous, and I believe that this can best be achieved through a teleological understanding of this demand for speed.

Aristotelian teleology

In the Phaedo (2010: 142-145), Plato launches a rather stringent attack upon one of his predecessors, Anaxagoras, who was the earliest of the Athenian philosophers. He initially commends Anaxagoras for developing a cosmology involving a divine intelligence, designated Nous, that controls all beings. Yet Plato goes on to criticize him for not properly following such an argument through to its conclusion. For Anaxagoras is, despite initial appearances, a fundamentally mechanistic, rather than teleological philosopher. The Nous sets the wheels of creation in motion, producing the initial motion from which all subsequent causality is formed, but otherwise remains an entirely external, transcendent force. As such, Plato (2010: 143) views this as a missed opportunity to explain not only the reason for the existence of the kosmos, but also, 'the reason why it had to be like that'. As he goes on to argue:

> It seemed to me that his position was very much as if someone started by saying "Everything Socrates does, he does mindfully", and then, when he set out to give the reasons for all the various things I do, he said first of all that the reason I'm sitting here now is that my body is composed of bones and sinews, and that the bones are hard and separated from each other by joints, while the sinews - along with the fleshy parts, and the skin that holds everything together - cover the bones, and have the capacity to tighten and slacken; so, with the bones suspended in their sockets, the sinews slacken and tighten and somehow make me able to bend to bend my legs as

> I'm doing now - and that's the reason why I'm sitting here with my legs bent as they
> are (2010: 144).

In other words, Plato (2010: 145) seeks an understanding of causality in which 'what truly binds and holds things together is the good and the binding': it is not enough, in his view, to explain why things happen, without also explaining that things happen because they are purposively the best possible outcome.

By contrast, Diogenes of Apollonia (not to be confused with Diogenes of Sinope or Diogenes Laërtius), a contemporary of Anaxagoras, developed an understanding of the kosmos in which all things are arranged in their best possible form, according to a divine intelligence that manifests itself as air (Curd, 2011: 138-139). This is much closer to the theory of Plato, who, in the Timaeus argues that:

> Intelligence ruled over necessity by persuading it to lead most of the things that come
> about to the best result, and it was by this submission of necessity to reasonable
> persuasion that this universe here was originally constituted as it is (2008: 38).

This belief, that the world is constituted not only on the basis of necessity, but also for the purpose of fulfilling a particular end, is what Aristotle (2001: 665) terms 'the final cause, that for the sake of which a thing exists'. This, along with the formal, material, and efficient causes, makes up one quarter of Aristotle's fourfold conception of causality, through which he seeks to understand the genesis of all objects.

Somewhat counter-intuitively, Aristotle (2001: 644) suggests that 'that cause is the first which we call the final one'. This is because for him, every object, whether man-made or natural, contains a telos that, from the very beginning, is instrumental in its genesis. It is perhaps as a result of such confusing terminology that this notion is so frequently misunderstood: telos literally means 'end', in the sense of a purpose, and it is for this reason that Aristotle refers to a 'final' cause - the term represents the reason for existence that is imbued in each object. At the same time, however, this does not simply make the final cause a goal that is to be reached, but rather, it implicates final cause at every point of the object's existence. Thus, efficient, material, and formal cause all presuppose this initial teleological cause.

Francis Bacon, the Scientific Revolution, and the Enlightenment
There remained a number of distinctly non-teleological strains of philosophy in the ancient Graeco-Roman world, from the proto-evolutionary theory of Empedocles' cosmogony, to the mechanistic atomism of Leucippus, Democritus, and Epicurus. In the long term, however, the sustained influence of Stoics such as Cicero and Seneca, the Neoplatonism of Plotinus, Augustine, and Boethius, and finally, the gradual adoption of Aristotelianism as the keystone of what became medieval Scholasticism led to, by the middle ages, a predominance of teleological understandings of causality within European philosophy. Thomas Aquinas (1998: 367), for instance, argues that 'the divine goodness is the end of all things', which all creatures in turn attempt to follow in order to acquire their own perfection.

'Empiricism, a wonder-struck philosophy of the inexhaustible,' writes Michel Serres (2009: 215), 'presupposes that the world is beautiful and its treasures infinite': it is was only with the empiricist Francis Bacon, arguably the key figure in displacing scholasticism as the primary philosophical method,

that the problems with teleology come into greater focus. Bacon was still at heart an Aristotelian, having been raised in an intellectual environment influenced in the main by scholasticism. Yet whilst those scholars that had preceded him viewed excessive aspiration to knowledge as responsible for the Fall of humanity, and therefore, regarded scholarship as the art of preserving, refining, and synthesizing, rather than expanding preexisting knowledge, he instead sought to build upon Aristotle's inductive method, refusing to simply accept his scientific theories at face value.

This new empiricist method attempted to avoid a reliance upon preexisting theories, and instead, sought to develop new theories through careful experimental practice and inductive reasoning. As such, it sought to avoid conflating physics - the study of nature - with metaphysics and theology. In The Advancement of Learning, he writes:

> the natural philosophy of Democritus and some others, who did not suppose a mind or reason in the frame of things, but attributed the form thereof able to maintain itself to infinite essays or proofs of Nature, which they term fortune, seemeth to me (as far as I can judge by the recital and fragments which remain unto us) in particularities of physical causes more real and better inquired than that of Aristotle and Plato; whereof both intermingled final causes, the one as a part of theology, and the other as a part of logic, which were the favourite studies respectively of both those persons; not because those final causes are not true and worthy to be inquired, being kept within their own province, but because their excursions into the limits of physical causes hath bred a vastness and solitude in that tract (2002: 198-199).

In other words, Bacon views teleological assumptions as inhibitory to scientific discoveries, because they place arbitrary restrictions upon the finitude of human reason, assuming that by establishing the ends for the sake of which an object exists, they can come to know all of the causal characteristics of that object. The implication of this - that human perception can exhaust the potentiality of an object - seemed antithetical to the Baconian form of inquiry.

Such an attitude was not confined to this one figure, however, but became a commonplace amongst Enlightenment philosophers. René Descartes (2003: 122-123) proposes that we 'banish completely from our philosophy the search for final causes', for the reason that 'we should not be so arrogant as to believe that we can know God's purposes'. His follower Benedict de Spinoza (1955: 75, 77) likewise suggests that it is due to a confused and fragmentary understanding of efficient causes that people come to assume that 'all things in nature acts as men themselves act, namely, with an end in view', contending that 'nature has no particular goal in view, and that final causes are mere human figments'. John Locke (2004: 97) argues that it presumes 'a little too much confidence in our own wisdom to say, I think it best and therefore God hath made it so'. Finally, David Hume, who is of course best known for his scepticism regarding the capacity for humans to apprehend causality at all, contends

> that all causes are of the same kind, and that in particular there is no foundation for that distinction, which we sometimes make betwixt efficient causes and causes sine qua non; or betwixt efficient causes, and formal, and material, and exemplary, and final causes (2011: 153).

For these varied thinkers, final causes are either replaced by, or are seen as synonymous with what Marshall McLuhan (2011: 22) describes as a 'uniform time and uniform continuous space in which "cause" is efficient and sequential, and things move and happen on single planes and in successive order'.

Yet, it must be noted, not all philosophers of this time opposed teleology in such a fashion (and in addition, in spite of the quote above, Locke did in fact support the teleological argument - that is, the argument by design - for the existence of God). Bishop George Berkeley (2003: 92-93) suggests that 'considering the whole creation is the workmanship of a wise and good Agent, it should seem to become to philosophers to employ their thoughts (contrary to what some hold) about the final causes of things'. Likewise, G.W. Leibniz (2005: 56) proposes that through God 'has been obtained the greatest possible perfection', as He always selects the best possible world.

Yet I would contend that in spite of these differences, Enlightenment philosophy as a whole (with the possible exception of Spinoza) was always thoroughly teleological, even if it did not always recognize itself as such. Writes Bacon (2002: 126):

> let no man upon a weak conceit of sobriety or an ill-applied moderation think or maintain that a man can search too far, or be too well studied in the book of God's word, or in the book of God's works, divinity or philosophy; but rather let men endeavour an endless progress or proficience in both.

At first glance, this would appear to be entirely nonteleological, in that it denies the possibility of absolute knowledge, speaking of an 'endless progress' in scientific thought. Yet to portray his argument as such would require a fundamental misunderstanding of the concept of a telos as explicated by Aristotle. Final cause is not 'the end-point of a series of efficient causes' (McLuhan and McLuhan, 1988: 88), but rather, acts as the very precondition of efficient causality.

A product of the age of moveable type, and yet educated within the confines of medieval philosophy, Bacon preserves the scholastics' division between the two forms of scholarship: study of both the Book of God and the Book of Nature. Yet whereas for the scholastics study of nature was a form of contemplative, hermeneutical inquiry analogous to their precise studies of laboriously handwritten manuscripts of the Bible, Bacon perceives nature as a text that is under constant revision. The vitality of Bacon's theoretical writings comes in large part from a post-Gutenberg milieu in which the speed of textual production has been increased to such an extent that the idea of an endless progress in our knowledge of nature seems plausible. The telos that he unintentionally proposes in his work, as paradoxical as it may seem, is precisely one of a perpetual acquisition of knowledge: the final cause I speak of, in other words, is not located in his objects of study, but rather, in his methodology itself. It does not reflect the goals of his scientific research, but shapes and informs them.

Georges Bataille (1988: 118) observes that the Middle Ages were characterized by a static teleological order, in which it was seen as self-evident that the eternal, divine final cause of God imbues all objects and forces, and as such, the world at this time 'appeared in fact to be given once and for all'. By sharp contrast, what we see with Bacon is an understanding of the world as mutable; a fact that in turn places the acquisition of knowledge in constant flux. The possibility of absolute truth is not eliminated - it would not be until Hume that epistemological realism would come to be questioned,

particularly amongst empiricists - but it is deferred. As such, knowledge becomes an end in itself: this telos is not necessarily a goal to be reached, but rather, is an assumption that structures the possibility of scientific inquiry.

The network society and the rise of digital temporality
In the same way that the introduction of the printing press so heavily affected the temporal assumptions contained within Bacon's theoretical writings, or Christiaan Huygens' pendulum clock affected those of the Enlightenment philosophers, today, our spatio-temporal perception of the world is premised upon a new sense of time – a 'network time' (Hassan, 2003) – that is driven by a discourse network constructed of new information and communications technologies, digital networks, and the commercial processes of globalization. The interesting thing about the milieu of our contemporary network society, however, in contrast to the clock-driven time of the Enlightenment, is that the digital inscription of temporality 'does not bind time to the form of human time-consciousness' (Hansen 2009: 302-304), but rather, expresses an autonomy that extends far beyond any traditional conception of human subjectivity. Notes Bernhard Siegert (1999: 12): 'real-time processing is defined precisely as the evasion of the senses'.

More than a century ago, Friedrich Nietzsche (1997: 5) depicted the time in which he lived as 'an age of "work", that is to say, of hurry, of indecent and perspiring haste, which wants to "get everything done" at once'. What he experienced, in effect, was a harbinger of the accelerative tendencies that have found their culmination in our present epoch. As is indicated by Benjamin's observation at the beginning of this paper, the network society is not particularly novel in its reliance upon speed in order to mobilize and distribute both products and labour: aside from the role of industrialization in dramatically increasing the speed of production, the digital networks of today through which information can be transmitted at speeds approaching that of light have their origins in the nineteenth century transition from the visual medium of optical telegraphy, to its electrical successor (Parikka, 2011: 270).

The network society does not in itself represent a sharp technological break, but what it does signal is the unprecedented interconnectivity engendered by digital networks, which have made this demand for speed more pervasive, more ubiquitous, and thus more necessary. Economists, politicians, corporations all 'share an almost religious belief in efficiency as a value in itself' (Eriksen, 2001: 160): a belief that is both encouraged by and works to further entrench the role of digital technicity in mediating our everyday life. The more we seek to increase the turnover time of production, not just in our conventional work practices, but in almost every aspect of our lives, the more we require the exteriorization of our senses into the realm of seemingly homogeneous digital timekeeping. What we find is that 'constant acceleration - that rate at which our experience of time has broken free from the temporality of the clock - is the defining process of our postmodern, post-Fordist, and post-industrial age' (Hassan, 2009: 19).

This is an ideology of speed that does not so much obscure the relations of production as it lays bare their instrumentalized, nihilistic function: following Bernard Stiegler (2009: 139), 'industry pursues its own development randomly—with a blindness that can prove very effective in producing maximal development since it is always basically a matter of the development of speed'. There is no clearly defined end-goal or terminus; rather, there is a continuous demand for speed - a telos that defines the way in which we as humans view the world, as well the means by which our technical

machines operate. This is not a teleology of progress, in the sense of working toward a rational goal, but the reification of a static final cause. All technological development - that which we perceive as progress - is in fact premised upon this one remarkably stable telos of speed, which is not in itself a goal, but instead, is the form within which our goals are shaped. In Aristotelian terms, this final cause does not come at the end of a chain of efficient causes - it is the very logic upon which these causes operate. The explanatory value of this concept lies precisely in its totalizing character: the way in which all other causal explanations for such speed are subsumed into one generalized narrative representing the external determination of human thought and action.

Speed as telos

Sunlight was, thinking in broad terms, the very first medium: not only did it allow humans to behold the environment they were situated within, but without it, the Earth would most likely remain a frozen, uninhabitable rock. From Plato (1993: 244) - who observes that in the visible realm, goodness 'is the progenitor of light and of the source of light' - onward, this light has represented the most universal medium; the unveiling of the very possibility of truth as a transmittable form. Hegel (1977: 419), for instance, takes light as being synonymous with Spirit - the absolute of Being - and the 'movements of its own externalization, its creations in the unresisting element of its otherness'. Likewise, Martin Heidegger (1962: 51) argues that 'the φαινόμενα or "phenomena" are the totality of what lies in the light of day or can be brought to the light', positioning truth explicitly as something that is uncovered. It is thus appropriate, notes Friedrich Kittler (2010: 224), that fibre optic cables, through which information is literally transmitted in the form of light, can be 'promoted to the position of a general medium'.

Network technologies such as the internet that have been enabled by this medium form the backbone of a global economy premised upon high-speed communication and distribution, decentralization, and an increasing focus upon the production of information. Speed is not a luxury, but a necessity: we are forced to attempt to keep pace, at any cost, with these machines that operate at a speed that our brains cannot even perceive. The network society completely reverses Immanuel Kant's 'transcendental ideality of time' (1998: 181-182): whereas he contends that time 'cannot be counted as either subsisting or inhering in the objects in themselves (without their relation to our intuition)', what we encounter today is an environment in which we are the objects upon which a particular concept of time is projected. Our intuition is not the source of our temporal comprehension, rather, our intuition is becoming a slave to the transcendental technical objects of information processing.

The network society is characterized by an almost-universal belief in a linear progression of technological development in which incremental and seemingly unremarkable developments in digital technology exhibit an increasingly rapid pace of introduction, presenting a continually shifting, seemingly irreversible telos of speed, mobility, and productivity. Once again, to think this teleology accurately, we must think it in Aristotelian terms: the socio-technical acceleration of the network society does not have a prescribed terminus - that is, a final point - and yet, it undoubtedly has a telos, that being acceleration itself. This telos is not just something to be achieved; instead, it defines the formal ground - the perception of an absolute necessity - through which our understanding of the world is constituted. Ulrich Beck's (2009: 5) suggestion that risk 'amalgamates knowledge with non-knowing within the semantic horizon of possibility' accurately reflects this society, in which exceedingly rapid progress in scientific discoveries and technological developments has become inextricable from an endemic sense of uncertainty, and even fear, regarding the future.

There is a vicious cycle here, one from which it is painfully difficult to be extricated: we strive for that which will somehow make our lives better, but precisely as a result of the temporal dislocation that we experience in the network society, we are unable to effectively gauge that which will aid us, and instead, we cling to our faith in the promise of material absolution offered by speed, even whilst holding a profound cynicism in regards to its purposes. This is where the relevance of Peter Sloterdijk's (1987: 6) critique of ideology, and his identification of the 'enlightened false consciousness' of cynicism comes to the fore: in our present age, ideology is not defined by ignorance, because we are all aware of its existence; instead, what we exhibit is a demoralized, hyperaware consciousness that is 'afflicted with the compulsion to put up with preestablished relations that it finds dubious, to accommodate itself to them, and finally even to carry out their business'. As Slavoj Žižek (1989: 26) puts it: 'one knows the falsehood very well, one is well aware of a particular interest hidden behind an ideological universality, but still one does not renounce it'.

In reflecting upon human nature, Cicero (2000: 6), the Roman stoic philosopher, statesman, and orator, writes:

> Our starting-point is that all species of living creatures are endowed by nature with the capacity to protect their lives and their persons, to avoid things likely to harm them, and to seek out and procure all life's necessities such as food, hidden lairs, and the like.

Spinoza (1951: 293) follows and expands this maxim, taking it as axiomatic that every being 'strives to preserve its own existence'. Unlike for Cicero, however, this does not appear to be a psychological claim, but instead, applies to all beings – it is simply a reflection of his argument that the essence of an object lies in its power to act (Deleuze, 1988: 127). If a being did not strive to preserve itself, it would cease to exist, and since he argues that nothing 'can be destroyed, except by a cause external to itself' (Spinoza, 1955: 136), this would be an absurdity; likewise, the striving does not indicate an absence, but rather, is a productive act that allows a being to exist within a maelstrom of external forces.

This striving, or conatus, must be clearly distinguished from his conception of desire. In one of his more abstruse passages, he defines desire as 'the actual essence of man, in so far as it is conceived, as determined to a particular activity by some given modification of itself' (Spinoza, 1955: 173). To put this more simply, desire is a human individual's conception of their own conatus, as modified by the mediation of their environment: it represents the finitude of such striving. If there were to exist a truly rational person, their desires would perfectly correspond to their conatus, and as such, they would presumably live eternally. Unfortunately, our understanding of causality is always limited, and as such, our desires are not always particularly advantageous. In the case of the network society, the possibility we must face is that the productive force of our desire no longer exists as the bastion of 'human autonomy at the heart of a hostile, silent nature' (Bataille, 1992: 46), but on the contrary, finds itself harnessed by the very automated processes that it first set in motion; the desire for speed is human, and yet the cause of this desire reaches far beyond the narrow window of human control.

Hence the ultimate premise that I wish to put forward: what we see is a return, or perhaps an amplification, of final cause: a belief that we, and the technical objects with which we interact, exist for the purpose of increasingly efficient production. This is not necessarily a conscious belief, and yet, it is

one that is constantly reflected in our quotidian interactions. Our restlessness is never sated: as Nietzsche (1996: 374) argues, 'it is precisely he who is becoming who cannot endure the state of becoming: he is too impatient for it'. This return of teleology is both produced by and entrenches the logic of network time: the linear chains of cause-and-effect that allow one to measure efficient causality are increasingly outpaced by the sheer calculative speed of digital media. This is not to suggest that such efficient causality no longer exists; it simply recognizes the inability of the human intellect to apprehend the processes that drive our networked environment.

As a result, the teleology of speed is more than just a metanarrative of progress; it is a telos of indeterminacy or contingency – the utopian future that drove Enlightenment philosophers is replaced by a distant horizon; one that only retreats further the faster we get. Speed becomes an end in itself: it is not a means to a better future, it is a final cause that infects almost every element of our mediative environment, built upon a narrative of technological development that has long forgotten the rationale - that is, the terminus - of its own existence. This is a teleological nihilism, in which the violence of speed cannot any longer even promise a better world, all it can do is offer itself as a means of acceleration toward a future about which we know little, and hope even less.

In his early work on cybernetics, Norbert Wiener (1954: 46-47) argues that it 'seems almost as if progress itself and our fight against the increase of entropy intrinsically must end in the downhill path from which we are trying to escape'. The more we seek to control our environment, he argues, the more dependent we become upon factors that actually lie outside of our ability to control them. The teleology of speed that I seek to identify is more than this however: it cannot be understood as progress because it represents the point at which progress in the sense of human-directed action becomes entirely external to itself. The term *cybernetics* is derived from the Greek word χυβερνήτηζ ('steersman'), and in our present age, what we are losing is the belief that we as humans steer our own destiny: whereas our distant ancestors found themselves at the mercy of a hostile, and ultimately uncaring natural environment, we now find ourselves working as components within a homeostatic feedback loop that would increasingly appear to exclude us from its calculative processes.

Whereas for Aristotle (2001: 770), 'excellence is a completion', today, excellence can only be expressed in terms of progress; finality is unthinkable. Having come to terms with the realization that Bacon was more correct than he ever realized – that the progress of knowledge is endless, and as such, there is no hope of ever finding a stable coherent truth – science, in the broad sense of the term, has been gradually transformed into a 'technological adventurism' (Virilio 2000: 3) that seeks to continually push the limits of both human knowledge and bodily capacity. Such a teleology produces, as Nietzsche (1996: 308) keenly observes, a quasi-religious messianism, in which a desire for absolute certainty, tempered by an infinitely deferred prospect that these certainties will ever come to hand, results in an uncritical fundamentalism. It is ironic, then, that Nietzsche did not consider the way in which his own metaphysical positions could actually contribute to such an ideology.

The demand for becoming

The defeat of nihilism, Nietzsche (2005: 109-110) argues, involves an affirmation of 'the eternal joy in becoming', accompanied by 'a radical rejection of the very concept of "being"'. In doing so, he seeks to utterly reject the belief in static essences that dominates rationalist philosophy from Plato to Kant, and to return to an effectively Heraclitean conception of the world as flux. Gilles Deleuze (1983: 22) adopted this notion more enthusiastically than perhaps any other philosopher, arguing that 'it is

doubtless to say that there is only becoming'. One wonders, however, whether Nietzsche – the philosopher who at other points in time declares that 'the desire to create continually is vulgar and betrays jealousy, envy, ambition' (1996: 97) – would have been so ardent an advocate of this perspective had he lived in the network society; a milieu in which the seemingly constant becoming of technological development, so fast that it comes to appear 'as being in continuous flux' (Deuze, 2012: 48), actually impedes the ability to apprehend one's environment.

The Nietzschean rejection of being as a category in its own right relies upon the assumption that if the process of becoming inevitably coalesces into being, then it surely would have already reached a final form, resulting in an entirely static universe (Nietzsche, 1967: 377). Established in this argument is a final cause of becoming, in which the perpetuum mobile of the universe becomes an end in itself. It is interesting to note how similar this is to the teleology of speed that we encounter today: a utopian future is, one would assume, a state of perfect stasis, and hence, the Enlightenment metanarrative of progress collapses under the weight of its own contradictory form. The fear of reaching such a state, and of therefore effectively halting progress – a fear expressed in Hegel's (1988: 29) declaration that '[p]eriods of happiness are empty pages in history, for they are the periods of harmony, times when the antithesis is missing' – leads directly to the indeterminate teleology we see today. As Nick Land (1992: 95) puts it: '[h]umans like to have two ends, and to keep them as distinct as possible; blessing telos and cursing terminus'.

What has become apparent is that the network society engenders a pathological fear of stasis, and that this translates into a disappearance of being itself behind the sensory flux of digital media. The belief in progress has been gradually transformed into an eternal recurrence: as we appear to creep closer and closer, at least within the sphere of technical production, toward Nietzsche's ideal of absolute becoming, our ability to gauge any kind of progression is dulled. Rather than being an affirmation of the world, and one's life within it, eternal recurrence is perversely transformed into a fear of the future; a demand to remain within a timeless present. 'The notion of eternal return,' as Benjamin (1999: 117) percipiently observes, 'appeared at a time when the bourgeoisie no longer dared count on the impending development of the system of production which they had set going'. How can we remain attuned to shifts within our environment when this change is so rapid that it becomes meaningless?

This is why I find myself having to disagree with Benjamin Noys (2011: 49) when he argues that a critique of capitalism must begin, not only with an identification of its contradictions, but with 'a precapitalist metaphysics of time as flux, to free us from the stasis of the false image of perpetual revolution represented by capital'. The problem with Noys' argument lies in his assumption that a metaphysics of flux is inherently opposed to the perpetual stasis of capitalism, when one could equally argue that the very existence of the latter is premised upon flux. Observes Wolfgang Ernst:

> In the presence of discrete data, "streaming" is a metaphorical disguise. But with accelerated data processing that is faster than what our optical and acoustic senses can consciously follow, discrete operations have become able to represent continuous ones, approaching the reality of physical signals themselves (2013: 246).

We live in a time of acute temporal dislocation, in which the seeming instantaneity of data transmission, and the concomitant social effects of this fact appear to have lent our lives a sense of fluidity seemingly at odds with the segmented seriality of the digital data processing that we rely upon.

At the same time, however, the irony is that whilst we appear to fear stasis, this is just as much a fear of genuine change: the homeostasis engendered by the teleology of speed guarantees a constancy that would seem to foreclose any possibility of rupture that might call such stability into question. 'Life within the magic circle of eternal return,' argues Benjamin (1999: 119), 'makes for an existence that never emerges from the auratic': the eternal recurrence of the new is, by the very fact of its recurring nature, not genuinely new; rather, it is the nihilism of a society that, by virtue of its awareness of its own directionless (or more correctly, the inability to control its direction), seeks reassurance in a novelty that reflects nothing other than the limited parameters of its own production. To suggest, as Noys does, that we must return to a genuine metaphysics of flux is to normalize both the premise that stasis is something to be feared; something inherently opposed to progress, and the accelerating rhythm of life that is imposed upon us by machines whose operation does not take into account the limitations of the human body and mind. Instead, perhaps what we need is to recognize and utilize the stable being of recurrence that lies at the core of the teleology of speed, and to begin to think the various ways in which we may carve out sites of agency within this field of potentiality.

If only McLuhan (1964: 12) were correct when he predicted that '[w]ith instant speed the causes of things began to emerge to awareness again' - it would appear that, in fact, the opposite has occurred. The world has blurred around us as the efficient causality that we have relied upon for empirical observation from Bacon onward retreats into a realm of 'microprocessual timing' (Ernst 2013: 58). What we need to therefore recognize is that subordinating being to becoming is nothing more than an expression of temporal uncertainty: in Nietzsche's case, as in ours, it is a misguided attempt to affirm an environment seeing rapid social and technological acceleration. The primary site of temporal virtuality in the network society has shifted from the human/world correlate to the contingent processual relationships between technical objects. The interesting thing about this deeply entrenched teleology of speed is that it cannot be understood as simply an expression of human culture, but instead, is in part the product of a medial environment that increasingly operates without need for human operation or intervention.

More accurately, the vectors of this teleology increasingly appear to emerge from the technological environment within which we are embedded - they prey upon the tendency, so accurately identified by Spinoza, for people to assume that all things happen for a reason. On the one hand, it is completely reasonable to speak of the autonomous agency of technical objects - that is, their potential to 'surprise and dismay us' (Bogost, 2012: 51). This is the problem, as Sean Cubitt (2008: 142) observes, with the early theorizations of technology in Kant and Hegel: for these two philosophers 'machines are distinguishable from living creatures because a living creature is its own teleology, but a machine's teleology is always something outside it'. The assumption contained here is that the output of a machine is always determined by an external human force, and as such, it ignores the way in which such technologies both restrict and enable human agency; the possibility that 'culture cannot be had without technology nor technology without culture' (Kittler, 2001: 51).

On the other hand, until the possibility of genuine artificial intelligence emerges, these technical objects cannot really be said to have self-defined ends; to suggest otherwise would be to imbue them with an unjustified capacity for independent reason. Notes Gilbert Simondon (1980: 3):

> No cultivated man would allow himself speak of things or persons painted on a canvas as veritable realities with an interior life and a will, good or bad. Despite this, the cultivated man does allow himself to speak of machines which threaten mankind, as if he were attributing to these objects a soul and a separate and autonomous existence which grants them the possession of feelings and of intentions towards mankind.

We like to imagine that, since we have created them ourselves, the machines that we produce and the software that we program work toward human ends, and yet, these machines operate under a logic that lies entirely outside the grasp of human intelligence. It is a rational irrationality – machines have no concern for ends, they operate solely on the logic of means. It is the inherent manipulability of human desire that gives rise to the teleology of speed: we attribute ends to these technical objects, and in doing so, we come to understand the world through a final cause that is imposed upon us by machines that have no possibility of conceiving of such a notion.

We view this system in teleological terms because we no longer believe that we have the ability to control it. Beck (2009: 9) defines risk as 'the anticipation of the catastrophe' - is it any wonder that in an era that offers us little opportunity to slow down and really think about the decisions we make, that we would end up having little ability to anticipate anything but catastrophe? Perhaps the value of Žižek's (1994: 1) contention that 'it seems easier to imagine the "end of the world" than a far more modest change in the mode of production' comes not just from its neat encapsulation of the intractability of post-Cold War capitalism, but also in its representation of a society in which the future is thinkable only in terms of destruction. It is as if the utopian teleology of the Enlightenment has been reversed: today, we look to the future with fear and uncertainty, rather than hope.

In this context, the indeterminate horizon that forms such a teleology can be seen as a kind of mythological regression: where the Stoics sought, in the face of a chaotic environment over which he felt no control, to put faith in the ultimate telos of providence, today, our inability to perceive an end point leads to the eternally deferred eschatological messianism of speed. 'Writing and archiving are concrete discursive practices and are fatal to truth' (Kittler 1990: 165): we have reached the margin of Enlightenment thought, the point at which its means have been so exteriorized through the archiving effects of media that the ends are not only forgotten, but are rendered meaningless.

To be or to become?
Kittler (2010: 36) argues that '[t]here are media because man is (according to Nietzsche) an animal whose properties are not yet fixed': that is, the process of mediation, at least when specifically talking in terms of the human/world correlate, relies upon the ability of the human body to be extended by other technologies. This notion, which has its origins in McLuhan's (1964: 51) argument that 'man in the normal use of technology (or his variously extended body) is perpetually modified by it', perceives the body as being a site of effectively limitless potentiality, restricted only by the technical standards of the technologies that it has at its disposal.

I would not seek to contest this point, nor do I believe it useful to do so. The antidote to technological determinism, if in fact we need one, does not lie in a return to essentialism, but rather, in a renewed understanding of the finitude of the human mind and body in relation to an increasingly dense technical milieu. To put it simply: just because we can do something, does not mean that we

should do it: the teleology of speed - which not only has its roots in Baconian empiricism, but is woven deeply into the fabric of post-Platonic metaphysics, with its emphasis upon the acquisition of pure knowledge - appears to have led to a situation in which, as Paul Virilio (2000: 1) puts it, technological development 'has developed solely with a view to the pursuit of limit-performances, to the determent of any effort to discover a coherent truth useful to humanity'. In the face of this, I believe that we would do well in following Catherine Malabou's (2008: 13) contention that 'securing a true plasticity of the brain means insisting on knowing what it can do and not simply what it can tolerate'.

In distinctly ontological terms, what I see as lacking is an understanding of immanence between being and becoming: rather than seeking stability in the privileging of one of these terms, I wonder whether we need to embrace the aporetic tension between them. In this way, I follow Heidegger's (1979: 20) reading of Nietzsche, when he states that '[t]hinking Being, will to power, as eternal return, thinking the most difficult thought of philosophy, means thinking Being as Time'. The lesson of Heraclitus, he goes on to argue (1979: 22), is that 'there is not necessarily a contradiction between the two statements "Being is Becoming" and "Becoming is Being"'. In viewing time as the necessary horizon for any investigation into the nature of Being, Heidegger does not seek to sublate being into becoming, as Hegel (2010: 20) does, for instance, when he declares being and nothingness to both be movements of becoming; rather, he acknowledges the way in which the necessary duality of presence and absence that constitutes objects relies upon an inextricable tension between the two states.

At first, there appears to be little difference between Heidegger's statement and Deleuze's (1983: 22), when he claims Heraclitus' lesson to be the paradoxical understanding that simultaneously 'there is no being beyond becoming, nothing beyond multiplicity', and that the 'affirmation of becoming is itself being, the affirmation of multiplicity is itself one'. Yet in spite of such a declaration, it is a consistent theme throughout Deleuze's corpus, both alone and in collaboration with Félix Guattari, that whilst being must be acknowledged, it can only be understood as a product of becoming: unity is affirmed in multiplicity, but multiplicity itself is presupposed as the originary element. To take just one example: in Difference and Repetition (1994: 50), he famously reverses Spinoza's metaphysics so that substance revolves around the modes - that is, so that it 'must itself be said of the modes and only of the modes'. In order to do this, he argues, a more general reversal needs to take place, in which he demands that 'identity not be first, that it exist as principle but as a second principle, as a principle become'.

This posited smooth space of absolute becoming - the plane of consistency that 'knows nothing of substance or form' (Deleuze and Guattari, 1987: 558) - offers no understanding of limits; no conception of the possibility that becoming is in some way restrained or bounded by the nature of its own emergence. Whilst Heraclitus was characterized – for instance by Plato – as postulating such a concept, he also speaks frequently of a *logos* that offers a stable, rational structure to the universe. Even just the very presence of a constant becoming indicates, in its very constancy, something that *is*, rather than *coming-to-be*. It is my contention that the socio-technical acceleration that characterizes our recent history is premised upon an understanding of the primacy of becoming - one that has its immediate origins in Enlightenment empiricism and the Nietzschean will-to-power (as well as perhaps the work of Henri Bergson), but which unwittingly finds its justification in ancient understandings of teleology and divine goodness.

Zygmunt Bauman (2000: 112) argues that the commodification of time is directly related to its gradual adoption as a tool utilized for 'overcoming resistance of space: shortening distances, stripping

the "remoteness" of the meaning of an obstacle, let alone of a limit, to human ambition'. To understand the culture of speed in teleological terms - specifically, a teleology projected by humans onto the networks of technical objects that increasingly regulate our temporality; an instrumentalized, exteriorized distortion of the Enlightenment project - allows us to reconceptualize this acceleration, not in terms of a final limit, for it cannot conceive of such a thing, but rather, in terms of a discourse that constantly infects every stage and aspect of our understanding of the world. This discourse brackets out any notion of the human as a limited being - as one whose functions are potentially amputated by the demands of a society that operates faster than the speed of thought. But more importantly, to think speed as telos allows us to divorce the concept of progress from that of acceleration: progress involves tangible, pragmatic ends; in the teleology of speed, these are liquidated by an inhuman apparatus of digital temporalization.

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