# Truth Machines: The Political Economy of Command and Control

*Written, secret, subjected, in order to construct its proofs, to rigorous rules, the penal investigation was a machine that might produce the truth in absence of the accused.*

Michel Foucault, *Discipline and Punish.[[1]](#footnote-1)*

In the first place, we have to recognize that the society of discipline does not *come to an end* with the advent of the society of control. The physical discipline of bodies remains an integral part of the state apparatus, even while technologies of control expand their sphere of operation. In *Between the World and Me*, Ta-Nehisi Coates warns his son that

destruction is merely the superlative form of a dominion whose prerogatives include friskings, detainings, beatings, and humiliations. All of this is common to black people. And all of this is old for black people. No one is held responsible.[[2]](#footnote-2)

Just because capitalism has discovered new and subtle ways to exercise control over one – predominantly white and affluent - segment of the population does not mean that physical discipline does not retain its oppressive power and its potent violence. “Simply because we police ourselves… does not mean that there is no longer a distinction between the citizens and the police.”[[3]](#footnote-3) Recognizing this distinction, we are still justified in asking how this self-policing came about, and what is the relationship between what Deleuze has called “the societies of control”[[4]](#footnote-4) and the regime of truth proper to those societies?

## Inflection Points

The socio-economic changes that we can, since Deleue, think about in terms of a transition from societies of discipline to societies of control are part of a larger cluster of changes apparent in every discipline: from the Fordist assembly-line to immaterial labour, from the Keynesian welfare state to free-market neoliberalism, from modernism to post-modernism. Indeed, the far-reaching nature of these changes provides a multitude of options for periodizing this transition, for defining its various moments. The May 1968 revolts, the end of the Bretton Woods accords in 1971, the 1973 oil crisis, the end of the Vietnam War in 1975, the 1979 election of Margaret Thatcher, or the 1980 election of Ronald Reagan; these are all significant moments in a transition that encompassed all of the centres of capitalism to say nothing of its effects on the periphery.

 What is clear from this list of inflection points is that between the late 1960s and the early 1980s we witnessed a change in the socio-economic orthodoxy, as well as the power relations, of the capitalist world. The economic blueprint for this new orthodoxy[[5]](#footnote-5) was laid down in 1962 in Milton Friedman’s *Capitalism and Freedom*, written in the context of the society of discipline theorized a few years later by Foucault in *Discipline and Punish* (1975). In this society, discipline and coercion, just as much as social services and full employment, were equated with the “big state” of the New Deal and the post-war consensus. For Friedman, economic and political liberty were tightly coupled and both were violated by the constraints of the welfare state. Liberty, in Friedman’s view, was defined as an absence of coercion which could only be guaranteed by the free-and-equal contractual relationships between sovereign parties:

The possibility of co-ordination through voluntary co-operation rests on the elementary yet frequently denied proposition that both parties to an economic transaction benefit from it, provided the transaction is bi-laterally voluntary and informed… Co-operation is strictly individual and voluntary provided: (a) that enterprises are private, so that the ultimate contracting parties are individuals and (b) that individuals are effectively free to enter or not to enter into any particular exchange, so that every transaction is strictly voluntary.[[6]](#footnote-6)

In this view, both the factory discipline of early capitalism and the Fordist/Taylorist discipline of the assembly line must be replaced by “voluntary” (self-)control. It follows that the transition from the society of discipline to the society of control is, in large part, a transition from the *external* disciplining of the labour force to the internalization of labour discipline through technologies of control, in order to bring about the apparent voluntarism and illusion of non-coercion of the neoliberal order. In effect, by taking labour discipline away from the state and making it a function of machines operating according to algorithms and statistics, social control itself is automated, and workers’ participation in their “specific mode of subjection”[[7]](#footnote-7) appears entirely voluntary. The neoliberal order thereby fits Friedman’s model of voluntary and informed transactions, that is, freedom.

This argument is not entirely new. Friedman’s insistence on the liberty of contractual parties is reminiscent of the formal requirement of capitalism that workers be “free in a double sense” – free both of traditional political bonds (to a feudal lord, for example) and free to sell their labour-power. Marx understood that this double freedom – socio-political and economic – was not real, but merely formal or logical – only the appearance of freedom. In the same way, Friedman’s contracting parties are only formally free, free for the sake of argument. Friedman posits a world in which individuals, acting according to their interests, are free from all responsibility towards others[[8]](#footnote-8). This is the position Marx deconstructs in his critique of the “eighteenth century Robinsonades”, the positing by classical political economists of a “state of nature” in which individual human beings were entirely self-sufficient, ignoring the social qualities of human activity which is a precondition of human society itself, let alone the individual. In the “Introduction” of 1857, Marx writes that this presumed state of individuals outside of and not responsible to society was nothing but an *anticipation* of capitalist society, its origin myth:

In this society of free competition, the individual appears detached from the natural bonds etc. which in earlier historical periods make him the accessory of a definite but limited human conglomerate… Not as a historic result but as history’s point of departure. As the Natural Individual appropriate to their notion of human nature, not arising historically, but posited by nature. This illusion has been common to each new epoch to this day.[[9]](#footnote-9)

Because *under capitalism* people are alienated from society and each other, this condition is made the *origin* of capitalist society, rather than its result, in an attempt to legitimate the capitalist order of things. The concept of free, uncoerced individuals voluntarily entering into exchanges is the “noble lie”[[10]](#footnote-10) on which bourgeois economics and politics are based.

The “free” labourers thrown off the land and into the factories as capitalism developed found themselves part of the process of transition from a regime of bodily punishment to behavioural discipline described in *Discipline and Punish*. The techniques of maintaining social order changed focus in this period; in Foucault’s words, their purpose became “not to punish the offense, but to supervise the individual”[[11]](#footnote-11). By 2017, as we shall see, these techniques have changed again, to *internalize* the function of supervision itself. This new model of labour discipline, of social control, indeed the pacification of all society, is a modulation of the techniques for maintaining order from an external supervisory discipline (the Panopticon, Taylorism), to an internalized (self-)control (individualized tracking, gamification, hyper-Taylorism). With each modulation, then, the formal, apparent freedom of the disciplined subject increases, while their real freedom decreases; the technologies of coercion only become more subtle.

## Cybernetic Capitalism

The transition we have been discussing – from discipline to control, from welfare state to neoliberalism – marks a shift in the moment of capitalism itself. In 2015’s *Cyber-Proletariat[[12]](#footnote-12)*, Nick Dyer-Witheford calls attention to the ways in which digital technologies have played a major role in the transition from a capitalism driven by mass, assembly-line labour in the immediate post-war period, to the cybernetic or “immaterial” capitalism that has developed since the end of the 1960s. Writing in 1989, Ursula Franklin notes that “we are living in a very difficult, very interesting time, a time in which a major historical period is coming to an end”[[13]](#footnote-13). The process which began with the socio-political upheavals of 1968 and witnessed both the Vietnam War and the 1973 oil crisis, led in the late 1970s to the political victory of neoliberalism, the cultural victory of postmodernism, and the technological dominance of robotics, networks, and cybernetics. Dyer-Witheford writes that

From the 1970s on capital’s ‘cybernetic offensive’… relentlessly destroyed the factory bases of the mass worker, reducing their workforce by automation, relocating them from the north-western quadrant of the globe to the former periphery of the world system via container transportation and electronic networks, and, in the core, shifting from industrial jobs to service and technical work.[[14]](#footnote-14)

These material changes in the way we work have had consequences for the way we experience our lives and the way we experience the world. As David Harvey argues in his history of neoliberalism, the neoliberal worldview

has become hegemonic as a mode of discourse. It has pervasive effects on ways of thought to the point where it has become incorporated into the common-sense way many of us interpret, live in, and understand our world.[[15]](#footnote-15)

Our connections with machines running on data gleaned from surveillance and tracking have made the post-truth societies of control properly cybernetic. Even the association of Fox News with Donald Trump supporters implies an ongoing, totalizing connection between the television (and the internet) and the consuming subject who both absorbs and emits information along various cybernetic channels. That information in turn feeds back into the system as yet more statistical training data. Neoliberalism, holding that prosperity and freedom are a function of unencumbered and uncoerced market transactions, has overseen the creation of a massive cybernetic organism, one whose human parts constantly report their condition, and which uses feedback to correct and control the human parts in their turn[[16]](#footnote-16). It seeks – unevenly – to bring all human action into the domain of the cybernetic market. In Harvey’s view,

this requires technologies of information creation and capacities to accumulate, store, transfer, analyse, and use massive databases to guide decisions in the global marketplace. Hence neoliberalism’s intense interest in and pursuit of information technologies (leading some to proclaim the emergence of a new kind of ‘information society’).[[17]](#footnote-17)

Made possible by the same improvements in computing power and precision as robots and networks, cybernetics is both a way of modeling computation systems on biological processes and of tying those systems back into the biological organisms themselves. For Norbert Wiener, the “father of cybernetics”, cybernetics did not require implants, though of course these are increasingly common today; he would have recognized the FitBit, for example, as a cybernetic feedback mechanism joining human organism and controlling machine. With this coupling of the human and the machine in technologies of control, we are forced to come to terms with the different senses of the word “truth”. There is truth whose opposite is the lie, and there is logical, statistical, quantifiable truth, whose opposite is falsity[[18]](#footnote-18).

From the perspective of information technology, the transition from discipline to control is inscribed in the history of computing through the dominance of formal logic and its view of truth, which have spread from the domain of nature to the domain of human affairs. Historically, the truth of formal logic was restricted to the realm of the natural sciences, while a more dialectical view of the truth was proper to the human sphere, as witness the dialogues of Socrates. Formal logic equates truth with validity, which requires abstraction; dialectical logic maintains the importance of the truth of concrete reality.[[19]](#footnote-19) The cyberneticization of capitalism has been at least in part the process of replacing social and political (dialectical) truth with abstract, formal, binary truth. The fears prevalent throughout the history of science fiction of the inhuman and dehumanizing logic of machines rests precisely on the nature of this logic. True/False, binary 1/0, is an abstraction and forces logic into the most basic and unnuanced of discrete and closed positions. True<->Lie is a continuum: multitudinous, free-form, open, and contextual[[20]](#footnote-20). Like the machines which monitor our every action, True/False is unchallengeable: a behaviour either conforms to the norm or it does not. There is no room here for any of the human virtues or justifications, no room for social and political contradictions. Truth/Falsity is true only insofar as it is effective, as it does what it sets out to do, like the “effective procedure” of computer science[[21]](#footnote-21), which in this case is to maintain a social order based on a notion of quantity, discreteness, either/or; like mathematic itself, this order is fair, neutral, objective. From this perspective, then, if we follow Friedman’s argument, the lie of the Truth/Falsity binary is a noble one insofar as it restricts politics and economics to the constrained logic of the contract.

## Feedback: Cybernetics and Truth

Truth has been human – as opposed to a divine – prerogative since Descartes, for home truth was both clear and distinct[[22]](#footnote-22). The obtuse interrogator in Asimov’s *Foundation* argues that “the truth should be clearer… less mysterious, more open to the mind”[[23]](#footnote-23) – a police view of truth. It is one of the qualities of critical theory, beginning with Marx, Nietzsche, and Freud, that truth is recognized as often not only obscure and indistinct, but unconscious and irrational. For Marx, human beings “make their own history, but they do not make it just as they please”[[24]](#footnote-24), indicating that there is a truth created by social forms independent of the truth of any individual within them. This puts truth at odds with the (neo)liberal view of society as composed of individual, fully understood, mutually beneficial transactions, where truth is only significant as it exists within a given contractual relationship. For Foucault, both the view of truth as knowledge and the amenability of social forms *to* knowledge, could only come about through a “specific mode of subjection”, and I would argue that post-truth is precisely the form of knowledge of the mode of subjection of our historical moment.

In Marxist terms, truth belongs to a particular conjuncture of a mode of production and the social relations and culture appropriate to it. The question then becomes, what are the social relations that have given rise to “post-truth” as a form of knowledge in the conjuncture we call neoliberalism? The question is one of political economy. If cyber-capitalism[[25]](#footnote-25), the computerized global capitalism of hyper-automation, networks, and robotics, is the specific economic form of our time, and neoliberalism its specific political form, then we might understand post-truth as its specific epistemological form. In this sense, then, Foucault’s “machine that might produce the truth” can be understood as the *episteme* of cybernetic capitalism, indicating not only the sociality of truth, the technology of truth production, but also its emerging non-human nature. We are perhaps witnessing the alienation of human beings from the truth, a transformation as momentous as the Cartesian moment.

Just as truth and objects of knowledge differ according to modes of subjection and production, so too, for Deleuze, “types of machine are easily matched with each type of society”[[26]](#footnote-26). What kind of machines, then, are producing the truth of post-truth society? For Deleuze, human bodies – the bodies on which penality is inscribed – are desiring machines, and the distinction between animal and machine is lost in the bravura opening of *Anti-Oedipus*:

Everywhere it is machines – real ones, not figurative ones: machines driving other machines, machines being driven by other machines, with all the necessary coupling and connections. An organ-machine is plugged into an energy-source machine: the one produces a flow that the other interrupts. The breast is a machine that produces milk, and the mouth is a machine coupled to it.[[27]](#footnote-27)

This is cybernetics, the study of “control and communication in the animal and the machine”, the type of machines proper to cybernetic capitalism. For Norbert Wiener, developments in computing during the Second World War made possible solutions to engineering problems common to both machines and animal organs. Initially, the connection between the animal and the machine proceeded by analogy:

It became clear to us that the ultra-rapid computing machine, depending as it does on consecutive switching devices, must represent almost an ideal model of the problem arising in the nervous system. The all-or-none character of the discharge of the neurons is precisely analogous to the single choice made in determining a digit on the binary scale, which more than one of us had already contemplated as the most satisfactory basis of computing-machine design.[[28]](#footnote-28)

Wiener’s research led him to investigate the improvement or replacement of organic functionality by a combination of the animal and the machine, predicting both functional prosthetics, but also the cyborgs and cybernetic implants – not to mention the entire discourse of “posthumanism” – of the present day. Wiener also predicted the substitution of machines for humans in the “mode of subjection” of capitalist society:

Long before Nagasaki and the public awareness of the atomic bomb, it had occurred to me that we were here in the presence of another social potentiality of unheard of importance for good and evil. The automatic factory and the assembly line without human agents was only so far ahead of us as is limited by the willingness to put such a degree of effort into their engineering as was spent, for example, in the development of radar in the Second World War.[[29]](#footnote-29)

Between 1948, when these words were written, and 1992, when Deleuze inaugurated the “societies of control” working through “computers, whose passive danger is jamming and whose active one is piracy and the introduction of viruses”, a “mutation of capitalism” took place which made Wiener’s vision a reality. In Deleuze’s terms,

Capitalism is no longer involved in production, which it often relegates to the Third World, even for the complex forms of textiles, metallurgy, or oil production. It’s a capitalism of higher-order production. It no longer buys raw materials or assembles parts. What it wants to sell is services and what it wants to buy is stocks. This is no longer a capitalism for production but for the market, which is to say, for being sold or marketed.[[30]](#footnote-30)

This cybernetic phase of capitalism developed out of the kernel of Wiener’s research[[31]](#footnote-31). In 1948, he could look on the potential of cybernetic automation as holding possibilities for both good and evil. For Deleuze, on the other hand, such automation moved us from a society of discipline to a society of control, part of the larger transition or inflection within capitalism that we have been discussing. Studies of post-war capitalism like Dyer-Witheford’s support Wiener’s contention that “the metaphysical dominance of machines [has become] a most immediate and non-metaphorical problem”[[32]](#footnote-32). To understand the mechanisms by which such metaphysical dominance, such internalized control, might work, we must look at the concept of *feedback*.

One of the cybernetic problems Wiener and his colleagues identified was how to allow a machine to self-regulate its performance. It is possible to program a robotic arm, for example, to move to a certain position relative to an absolute frame of reference. In contrast, a human being can move an arm to a given position relative to another object. The mechanism by which this is achieved is feedback, where the difference between an expected result and an actual result is fed back into the mechanism, allowing it to continually adjust the action to minimize the difference. The feedback loop in the muscles of a human being is generally so subtle as to be unconscious, except in conditions where the neuromuscular system is operating differently. The “control of a machine on the basis of its *actual* performance rather than its expected performance” involves “tell-tales or monitors, that is… elements which indicate a performance”[[33]](#footnote-33). Thus cybernetics brings together data, surveillance, tracking, gamification, and truth in the service of the self-control, self-adjustment, or self-regulation of individuals. (Post-)truth, in this sense is merely the measure of conformity with expected performance, the deviation from the statistical norm mined out of zettabytes of self-reported and illegally captured data.

This new period of capitalism was heralded as “the coming of post-industrial society”[[34]](#footnote-34) or the “information age”[[35]](#footnote-35), a period when the advances in cybernetic control that date from the end of the Second World War were presumed would lead to regimes of immaterial and affective labour free from scarcity or coercion, increased leisure time and standards of living. All of this would be supported by software and algorithmically-controlled robots. Instead, we are living in a long period of economic downturn[[36]](#footnote-36), often slow, but punctuated as in 1973, 1987, and 2008 with increasingly harsh crises. Like Dyer-Witheford’s vortex, this process has been compared with storm formations amenable only to statistical analysis. We live in a world of civil war, religious fundamentalism, drone strikes, “dodgy dossiers”, “alternative facts”, and a resurgent fascist right. We also live in a world of ubiquitous surveillance, data mining, wearable technologies, hyper-Taylorism, tracking, targeted advertising, the “deeps” (deep web, deep learning, and deep state), and the ultra-rapid, statistically-based financialization of the economy – all made possibly by the all-too-material hyper-exploitation of the global South, and the prison-industrial complex [[37]](#footnote-37) at home. Indeed, it is vital to remember that not only is the “society of control” mainly a phenomenon of the capitalist metropoles, but it is also unevenly applied: what is self-regulation to the affluent, predominantly white, cultures of the capitalist centre remains brutal, bloody, bodily “discipline” to oppressed and marginalized populations. We need only think of the crimes that gave rise to the Black Lives Matter movement[[38]](#footnote-38) or the violent suppression of indigenous protests against piplines[[39]](#footnote-39), not to mention the “starlight tours” and the sheer number of missing and murdered indigenous women in Canada, to recognize that there is no neat dividing line between societies of discipline and of control. If anything, discipline and control tends to break down along class, gender, and racial lines *within* a given society.

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## Statistics, Data, and the Society of Control

Many of the algorithmic systems that have marked the advent of this new world rely on statistical modeling or prediction. Machine learning systems like the “deep learning” TensorFlow software library from Google or the financial algorithms whose out-of-control velocity led to the financial crisis of 2008 essentially use machinery to enable the rapid parsing of historical data (“training data”) to perform statistical prediction at speeds and scales impossible for human beings. Indeed, speed is one of the most marked characteristics of the period under discussion, along with increased militarization, as Paul Virilio has shown[[40]](#footnote-40).

The roots of this statistical revolution can be traced to developments of 19th century science, especially in the work of Ada Lovelace and Charles Babbage, but as Marx demonstrates, it also arises from capitalism’s reliance on abstract, aggregate, statistical labour rather than the specific labour of individuals[[41]](#footnote-41). It has been argued that the introduction of statistics into physics formed the basis of the revolution of Newtonian into Relativistic science in the 20th century. Writing in 1950, Norbert Wiener argued that statistics allowed physicists to ignore characteristics of systems that had previously been seen as significant or defining. Instead, they argued that the only feature distinguishing two systems was the amount of energy contained in each[[42]](#footnote-42). In physics, the reciprocal of energy is entropy, a measure of the amount of potential work available within a given system. In information science, on the other hand, the entropy of a system can be used to inform predictions about future states of the system through probability. While the definition of entropy differs for physical and information systems, its usefulness in terms of statistical prediction is clear. Adami’s concept of information as “that which allows you to make a correct prediction with accuracy better than chance”[[43]](#footnote-43) connects the concept of information-entropy with that of feedback – the ability to achieve an end result through historical data rather than by chance. Feedback measures actual performance against expected performance and is concerned with the difference between them. Adami writes:

We can never know the actual uncertainty that we have about any physical object, unless the statistics of the possible measurement outcomes of that physical object are for some reason known with infinite precision (which you cannot attain in a finite lifetime). It is for that reason that I suggest to the reader to give up thinking about the uncertainty of the physical object, and be only concerned with differences between uncertainties (before and after a measurement, for example). The uncertainties themselves we call entropy. Differences between entropies (for example before and after a measurement) are called information.[[44]](#footnote-44)

Differences between measurements, differences between actual and expected performance, prediction, achievement: these are the mechanisms by which information regulates action and behaviour.

By mid-century, Western culture had become fascinated by statistics. Asimov’s *Foundation*, published in 1951, is predicated on an application of statistics to history and social movements. Echoing Lenin, we could say that contemporary capitalism is “statistics plus computerization”[[45]](#footnote-45), the fulfillment of Babbage’s wish that “these calculations had been steam”[[46]](#footnote-46). In statistics, whether applied to physics, information, or social prediction, probability replaces certainty. Insofar as a probabilistic model of the truth can be applied to the statistical totality of human beings, the truth can only be measured in terms of its effectiveness, that is of its power to predict or control[[47]](#footnote-47). Indeed, it is precisely this transition from certainty to probability, from power over an individual to power over a population, that has led from Foucault’s society of discipline to Deleuze’s society of control, from power over individual bodies to control over statistical populations. This power is felt as the power of a norm. Monitoring and gamification, from FitBit to Untapped, reinforces the internalized control of the mean by penalizing underachievement and deviation. This is especially stark in struggles around disability and accessibility. Control is enforced by norms embedded in our built environment, but it is also monitored and enforced by self-tracking systems, for example in Amazon warehouses.

For Foucault, the transition to statistical truth entails a change in the status and function of truth itself. It is a question of *episteme* (scientific truth) as opposed to *doxa* (common sense truth or opinion). Foucault described *episteme* as

the strategic apparatus which permits of separating out from among all the statements which are possible those that will be acceptable within, I won’t say a scientific theory, but a field of scientificity, and which it is possible to say are true or false.[[48]](#footnote-48)

In the post-truth era, “true” and “false” are a matter of statistical probability, what is true is what is normal, average. Hence the common critique of “post-truth” during the 2016 US presidential election was the critique of “normalization”. Normalization is not, I think, the “making normal” of a given phenomenon in *reality*, but making its existence and belief in it the statistical norm, a question of mass or preponderance, of weight in a population or discourse. In the post-truth era, the ability to say whether something is true or false (“alternative facts”) depends on where it falls on a statistical distribution of belief. Crudely put, if enough people believe something, it is true[[49]](#footnote-49).

This position clearly has enormous implications for politics. In *Hatred of Democracy*, Jacques Rancière writes that in the current conjuncture,

our basic reality does not leave us the choice to interpret it and merely requires responses adapted to the circumstances, responses which are generally the same, whatever our opinions and aspirations.[[50]](#footnote-50)

The post-truth societies of control are ones in which our very understanding of truth now serves the purposes of docility and the restriction of agency. The rationality of binary logic, its mathematical purity and lack of ambiguity, driving a statistical, probabilistic model of truth, is simply the latest legitimating principle, or noble lie, for societies that – with the advent of postmodernism – deny all legitimating principles. Post-truth as statistics is true insofar as it satisfies this logic, but as with all legitimating principles, it must always be contested. Its purpose is always discipline and the maintenance of social order; the societies of control have merely automated legitimacy as they have automated everything else. My insistence on the continuity of neoliberalism with prior phases of capitalism, in contrast to the view of it as something entirely new, is important to show the transitional developments from early capitalism (the society of discipline) to cyber-capitalism (the society of control). Moufawad-Paul describes this development as a purely “formal transformation that… has not altered the underlying logic of capitalism”[[51]](#footnote-51), the logic of exploitation and profit.

Such an insistence on the basic continuity of capitalist exploitation is also in part to counter the liberal critique of neoliberalism: that it is just a mistake, an error that can be corrected simply through “the shaping of a new social contract”[[52]](#footnote-52). There was no period of “good capitalism” prior to this period of deregulation, austerity, and the dismantling of the social safety net. Even the post-war consensus was simply a temporary compact, an “imperial détente”[[53]](#footnote-53), between labour and capital in which a small sector of the Western working class was bought off at the expense of people of colour, gender and sexual minorities, people with disabilities, and the working class of the rest of the planet. Similarly, the transition from a society of discipline to the society of control mustn’t be seen as a rupture: it is a change in emphasis, rather than a fundamental transformation. While Deleuze’s “Postscript” marks a particular moment in this transition, studies of the history of labour show us that in fact the movement from discipline to control began sometime in the late 1960s. We haven’t yet reached the end.

*Conclusion: Excess and Emancipation*

Feedback restricts and controls excess or deficiency in movement. This is as true in the cybernetic organism as it is in democratic society, where the restriction of “democratic excess” is a political requirement. Liberal democracies seek to contain the “excesses” of individualism, of identities, of the demand for rights – excesses that are engendered by the ideology of liberalism itself – by supplying a homogeneous set of values, ideas, and mores to the populace through education and mass consumer culture. They hope that this will provide a substitute, an alternative legitimacy to the “natural” order of birth and wealth of the *ancien regime*. These principles, however, risk asking for more than liberal democracies are prepared to provide, in terms of recognition, rights, agency. But in order to avoid repressing this democratic excess by discipline or force, in order for ruling oligarchies to *make use of* individualism, identity, and human rights, individuals must feel that they are acting freely, without coercion; they must control *themselves[[54]](#footnote-54)*. It is not enough, anymore, for the state to discipline the “docile bodies” of its subjects, for this would destroy the illusion of freedom, equality, consumer choice, and self-determination which lies at the bottom of neoliberal contractual relationships. In the societies of control each individual, each cog in the massive cyborg of global capitalism, must rely on impersonal feedback loops to gauge the distance between their own expected and actual performance.

But it is precisely this reliance of the individual on mechanisms of feedback that open up a space to resist post-truth, to replace self-regulation with emancipation. In Rancière’s view, the radical equality of one person with another is not the mathematical equivalence to which the cybernetic machine reduces us. Rather it is a

movement that blurs the given distribution of the individual and collective, and the accepted boundary of the political and the social… the action that constantly wrests the monopoly of public life from oligarchic governments the omnipotence over lives from power of wealth.[[55]](#footnote-55)

The debasement of choice to feedback, of the dialectical plurality of and richness of human truths to the binary despotism, the “single choice”, of digital truth, requires for its functioning the individual’s awareness of their inadequacy, their inequality with respect to others, the vast gulf between their performance and what is expected of them. Our docility is made possible by our feelings of failure. We are required to feel like failures, incompetents, “less than”. This is the truth of post-truth societies of control, a truth learned from advertising: in order to be controlled, one must feel like an imposter. “The austerity subject is… unsure of itself; this is both its strength and weakness”[[56]](#footnote-56). In terms of information, our feeling of failure comes about through comparing ourselves with the massive aggregate of data that describes the *average* against which we judge ourselves and come up short. As much as we deviate from the norm, we are deviant, and our feedback loops are the means by which we register our deviance and by which we can approach the safety of the norm again. Our own individual intelligence becomes subordinated to the massive online database of global cybernetic intelligence, leading to what Rancière calls “stultification” (*abrutissement*), the subordination of one intelligence to another. It is only by recognizing our own fundamental adequacy, the equality of our own intelligence and identity, that we can escape the domination of control, the subjection of our human truths to “post-truth”; that we can achieve something out of fashion in today’s fractured discourse: the communal emancipation of a world of equals.

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1. Michel Foucault, *Discipline and Punish: The Birth of the Prison* (New York: Vintage, 1995), 37. [↑](#footnote-ref-1)
2. Ta-Nehisi Coates, *Between the World and Me* (New York: Spiegel and Grau, 2015), 9. [↑](#footnote-ref-2)
3. J. Moufawad-Paul, *Austerity Apparatus* (Montreal: Kersplebedeb, 2017), 121. [↑](#footnote-ref-3)
4. Gilles Deleuze, “Postscript on the Societies of Control”, *October* 59, Winter 1992: 3-7. [↑](#footnote-ref-4)
5. It was hardly new, simply given a new twist. The sanctity of contract was an integral part of classic liberalism (cf. Rousseau’s *Social Contract*), but was also a major part of Proudhon’s critique of liberalism, roundly criticized by Marx. See William Clare Roberts, *Marx’s Inferno: The Political Theory of* Capital(Princeton and Oxford: Princeton University Press, 2017), 161. [↑](#footnote-ref-5)
6. Milton Friedman, *Capitalism and Freedom* (Chicago: Chicago University Press, 1982), 19-20. [↑](#footnote-ref-6)
7. Foucault, *Discipline and Punish*, 24. [↑](#footnote-ref-7)
8. See, for example, Milton Friedman, “The Social Responsibility of Business is to Increase its Profits,” *The New York Times Magazine*, September 13, 1970. [↑](#footnote-ref-8)
9. Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy (Rough Draft)* (London: Penguin, 1973), 83. Marx has previously made the same argument in *The Poverty of Philosophy* (1847). [↑](#footnote-ref-9)
10. Cf. Plato, *The Republic*, Book 3, 415c-d. [↑](#footnote-ref-10)
11. Foucault, *Discipline and Punish*, 18. [↑](#footnote-ref-11)
12. Nick Dyer-Witheford, *Cyber-Proletariat: Global Labour in the Digital Vortex* (Toronto: Between the Lines, 2015). [↑](#footnote-ref-12)
13. Ursula Franklin, *The Real World of Technology* (Toronto: House of Anansi, 1999), 1. [↑](#footnote-ref-13)
14. Dyer-Witheford, *Cyber-Proletariat*, 38. [↑](#footnote-ref-14)
15. David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005), 3. [↑](#footnote-ref-15)
16. Yet again Marx was prescient in this respect. See, for example, the “fragment on machines” (*Grundrisse*, 692-695). [↑](#footnote-ref-16)
17. Harvey, *Neoliberalism*, 3-4. [↑](#footnote-ref-17)
18. Considerations of space prevent me from delving into the arguments between dialectical and formal logic, but these arguments bear heavily on this distinction. See Richard Norman and Sean Sayers, *Hegel, Marx and Dialectic: A Debate* (Brighton: Harvester Press, 1980). [↑](#footnote-ref-18)
19. Norman and Sayers, *Hegel, Marx and Dialectic*, 123. [↑](#footnote-ref-19)
20. For example, texts such as this one are neither “true” nor “false” according to the discrete/binary model of formal logic. [↑](#footnote-ref-20)
21. See Alonzo Church, “An unsolvable problem of elementary number theory,” *American Journal of Mathematics* 58, 1936: 345-363; A.M. Turing, “On Computable Numbers, with an Application to the Entscheidungsproblem,” *Proceedings of the London Mathematical Society* 42, no. 1 (1937): 230-265. [↑](#footnote-ref-21)
22. Rene Descartes, *Meditations on First Philosophy* (Cambridge: Cambridge University Press, 1986), 24. [↑](#footnote-ref-22)
23. Isaac Asimov, *Foundation, Foundation and Empire, Second Foundation* (New York: Everyman, 2010), 25. [↑](#footnote-ref-23)
24. Karl Marx, *The Eighteenth Brumaire of Louis Bonaparte* (New York: International Publishers, 1963), 15. [↑](#footnote-ref-24)
25. James Laxer, *The Undeclared War: Class Conflict in the Age of Cyber-Capitalism* (Toronto: Viking Canada, 1998). [↑](#footnote-ref-25)
26. Deleuze, “Postscript”, 6. Marx puts this another way when he writes: “Technology reveals the active relation of man to nature, the direct process of the production of his life, and thereby also lays bare the process of the production of the social relations of his life, and the mental conceptions that flow from those relations”. Marx, *Capital: Critique of Political Economy*, *Volume 1* (London: Penguin, 1976), 493. [↑](#footnote-ref-26)
27. Gilles Deleuze and Felix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1983), 1. [↑](#footnote-ref-27)
28. Norbert Wiener, *Cybernetics or Control and Communication in the Animal and the Machine* (New York: MIT Press and John Wiley & Sons, 1961), 14. [↑](#footnote-ref-28)
29. Wiener, *Cybernetics*, 27. [↑](#footnote-ref-29)
30. Deleuze, “Postscript”, 6. [↑](#footnote-ref-30)
31. Dyer-Witheford, *Cyber-Proletariat,* 39-45. [↑](#footnote-ref-31)
32. Wiener, *Cybernetics*, 27. [↑](#footnote-ref-32)
33. Norbert Wiener, *The Human Use of Human Beings: Cybernetics and Society* (Boston: Houghton Mifflin, 1954), 24. [↑](#footnote-ref-33)
34. Daniel Bell, *The Coming of Post-Industrial Society: A Venture in Social Forecasting* (New York: Basic Books, 1973). [↑](#footnote-ref-34)
35. Christian Fuchs, *Reading Marx in the Information Age: A Media and Communication Studies Perspective on* Capital, Volume 1 (Oxford: Routledge, 2016); Christian Fuchs, “Capitalism or the Information Society? The Fundamental Question of the Present Structure of Society,” *European Journal of Social Theory* 16, no. 4 (2012): 413-434. [↑](#footnote-ref-35)
36. Robert Brenner, *The Economics of Global Turbulence: The Advanced Capitalist Economies from Long Boom to Long Downturn*, *1945-2005* (London, New York: Verso, 2006). [↑](#footnote-ref-36)
37. Angela Davis, *The Prison-Industrial Complex* (Oakland: AK Press, 2001), compact disc. [↑](#footnote-ref-37)
38. Keeanga-Yamahtta Taylor, *From #BlackLivesMatter to Black Liberation* (Chicago: Haymarket, 2016). [↑](#footnote-ref-38)
39. Aaron Labaree, “[NoDAPL: Standing Rock and the ‘Deep North’](http://www.aljazeera.com/indepth/features/2017/01/nodapl-standing-rock-deep-north-170109063857178.html),” *AlJazeera,* January 17, 2017. [↑](#footnote-ref-39)
40. Paul Virilio, *Speed and Politics* (Cambridge, Mass: MIT Press, 2006). [↑](#footnote-ref-40)
41. Marx, *Capital*, 135. [↑](#footnote-ref-41)
42. Wiener, *Human Use of Human Beings*, 10-11, 21-22. [↑](#footnote-ref-42)
43. Christoph Adami, “What is Information?” [**arXiv:1601.06176**](https://arxiv.org/abs/1601.06176)[nlin.AO] (2016), DOI: [10.1098/rsta.2015.0230](https://arxiv.org/ct?url=http%3A%2F%2Fdx.doi.org%2F10%252E1098%2Frsta%252E2015%252E0230&v=908a0d50), 8. [↑](#footnote-ref-43)
44. Ibid., 5. [↑](#footnote-ref-44)
45. “Communism is Soviet power plus the electrification of the whole country”, V.I. Lenin, “Our Foreign and Domestic Position and Party Tasks”, in *Collected Works*, 4th English Edition, Progress Publishers, 1965, Volume 31, 408-426. [↑](#footnote-ref-45)
46. Quoted in Harry Wilmot Buxton and Anthony Hyman, *Memoir of the Life and Labours of the Late Charles Babbage Esq, FRS* [1872/1880] (Cambridge, Mass: MIT Press, 2003), 46. [↑](#footnote-ref-46)
47. “A broader principle of cybernetics… was the idea that information is not about *knowing* but *doing*.” Dyer-Witheford, *Cyber-Proletariat*, 42. [↑](#footnote-ref-47)
48. Michel Foucault, *Power/Knowledge: Selected Interviews and Other Writings* (New York: Vintage, 1980), 197. [↑](#footnote-ref-48)
49. This explains the rise of proponents of previously discredited theories, from Anti-Vaxxers to Flat-Earthers, as well as the prominence of conspiracy theories in contemporary discourse. [↑](#footnote-ref-49)
50. Jacques Rancière, *Hatred of Democracy* (London, New York: Verso, 2009), 77. [↑](#footnote-ref-50)
51. Moufawad-Paul, *Austerity Apparatus*, 53. [↑](#footnote-ref-51)
52. Franklin, *Real World*, 132. [↑](#footnote-ref-52)
53. Moufawad-Paul, *Austerity Apparatus*, 34. [↑](#footnote-ref-53)
54. It would also go against the (neo-)liberal principle of small government to use state apparatuses to repress the population. In essence, the state automates repression, following the same logic of automation as everything else. [↑](#footnote-ref-54)
55. Rancière, *Hatred of Democracy*, 93-96. [↑](#footnote-ref-55)
56. Moufawad-Paul, *Austerity Apparatus*, 86. [↑](#footnote-ref-56)