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Book Author(s): Jonathan Beller

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The Internet of Value, by Karl Marx: Information as Cosmically Distributed Alienation

I thought of a labyrinth of labyrinths, of one sinuous spreading labyrinth that would encompass the past and the future and in some way involve the stars.

—Borges

There is a deceptively simple but nonetheless correct equation between what has become the media-environment and the unconscious, discernable from the evidence that is the global warming of the material substrate of our thought and now entering a new stage variously christened, the anthropocene, “the capitalocene,” “the white supremacist capitalocene,” (Mark Driscoll), plantationocene, chthulucene (Haraway). There is also a growing recognition that these hot materialities are indeed the return of the repressed of centuries of idealism, alienated science and all its attendant if unfathomable colonial violence. However the argument of *Message*, that both “the environment” and “the unconscious” are computational and together currently comprise elements of a single system, goes further than just to suggest that these two ostensibly separable conceptual entities (the first demonstrably everywhere as indicated by “the anthropocene,” and the second, only just proposed in this text as “the computational unconscious”) are of a piece. Let us recall through the lens of Stanislaw Lem and Andre Tarkovsky (*Solaris*) that according to Marx (arguably the first great figure in software studies) “nature is man’s inorganic body”—and the history of the species is also the history of the transformation of this inorganic body—its reprogramming. No wonder that in the fictional, if allegorical, science of “Solaristics” that investigates the uncanny star Solaris, the very appearance of the cosmos becomes an expression of the species’ repressed. In an interactive and recursive relation, Solaris mysteriously sends emanations of the scientists’ unconscious back to their observatory to haunt them.

Marx's de-encryption of private property anticipates this insight into the historical materiality of the as yet untheorized unconscious that would later emanate from the outside when in the 1844 manuscripts he cracks the code (codification) of private property to show that private property, rather than being a natural form (along with its affective dimension, "greed" existing as a natural attribute), is "not the cause but the effect of alienated labor." The long history of alienated labor is the antecedent of the universalist generalization of private property that comes into being only by separating the workers' product from the worker and giving them less in return and recursively iterating through cycles of expansion for centuries without end. The analogy Marx uses to discredit the naturalizing mythos of private property as the cause of avarice and wage labor is one with theology. "[T]he gods in the beginning are not the cause but the effect of man's intellectual confusion. Later this relationship becomes reciprocal."¹ Private property as effect is naturalized and soon taken up as an explanatory cause by political economists and nearly everyone else and this is the source of intellectual confusion, to say the least. As "man" is inscribed in "nature," "nature" is inscribed in "man," says Marx, in a reciprocity based for him upon a confusion of first principals.

Such recursive mistaking of mediation effects for causal agents—private property, avarice, the subject, the nation—has been a leitmotif thus far in *Message*. We observe that this type of mistake, characteristic of idealism, has all too often naturalized murder. With colonialism and the forced shattering of indigenous traditions, various "mytho-ontologies" have undergone a narrowing and "refinement" through disenchantment by dominant science working to exclude nearly all other mythic domains of ordination and narration save its own. This science however has fully incorporated a transformation of "man"/"nature" by history that has for at least seven hundred years been dominated by what we may now recognize as the informatics of capitalism—an incorporation that in its dynamics and consequences is both unconscious and the unconscious that has consequences beyond all calculation. Science separates race from colonialism and slavery, gender from heteropatriarchy, homo sapiens from the environment and humans from their media. No wonder we are zombies in the face of climate change—the somnambulism imposed by the spectacle and the separation from embodiment imposed by information leaves us with an impoverished idea of the bio-dynamics of capitalism and encloses us in a mytho-ontology that presupposes greed

and private property but has translated those presuppositions into computational operations.

We could recast history here and say that this appearance of being outside the world and the reality of being incapacitated by it, results from the automation of planetary life by alienated computation. As Marx puts it “It is only to be expected that a living, natural being equipped and endowed with objective (i.e., material) essential powers should have *real natural objects* of his essence; as is the fact that his self-alienation should lead to the establishing of a *real* objective world—but a world in the form of *externality*—a world therefore, not belonging to his own essential being, and an overpowering world. There is nothing incomprehensible or mysterious in this. It would be mysterious, rather, if it were otherwise.”² “Man” emerges mediated through his objects, his externalities—a logic that places “man” outside of “nature” and makes clear why dialectics is forced into the uncomfortable claim that capital was simultaneously the best and the worst thing that ever happened: the liberation of the productive forces and all that, capital as the condition of “man.” Self-alienation from nature produces both the human and nature—an “originary” binary that in truth can only be imposed retroactively as the result of alienation. This alienation is, for the early Marx “objective man,” and as Sean Cubitt has brilliantly shown, it constitutes the environment as an externality of capitalism and colonialism that, in a second moment, even when re-deployed by environmentalists for protection and saving, continues to presuppose capitalism and colonialism in the very notion of “the environment” precisely because the environment is conceived as an externality.³ The conditions under which the environment is an externality are consequent from colonization—in the *longue durée*, the practical continuation of the severance of man (“man”) from nature (“nature”). Thus any invocation of “the environment,” presupposes it as a colonial externality. The notion itself, despite the best intentions of some, results and persists from the unchecked proliferation of narratives by abstractions embedded in the material operations of political economy broadly conceived—abstractions that are themselves part of systemic colonization of the planet and the mind by capital. These abstractions contain within themselves the naturalizing notion of originary severance that is private property, the still eminently practical means by which people continue to be separated from resources that they might otherwise access (and arguably the means by which the categoricity of distinct speciation comes into being). The list of what has been severed

from access is long but it includes air, water, land, earth, life and nature. Dominant self-conceptions and the concept of the environment—to say nothing of the actually existing planetary relations—urgently require decolonization.

Commenting on the power of concepts to inform consciousness and differentiating her Chthulucene from the name of monster in the racist imaginary of a story by H.P. Lovecraft, the cyborg known as Donna Haraway writes:

“My” Chthulucene, even burdened with its problematic Greek-ish tendrils, entangles myriad temporalities and spatialities and myriad intra-active entities-in-assemblages—including the more-than-human, other-than-human, inhuman, and human-as-humus. Even rendered in an American English-language text like this one, Naga, Gaia, Tangaroa, Medusa, Spider Woman, and all their kin are some of the many thousand names proper to a vein of SF that Lovecraft could not have imagined or embraced—namely, the webs of speculative fabulation, speculative feminism, science fiction, and scientific fact. It matters which systems systematize systems, which stories tell stories, which concepts think concepts. Mathematically, visually, and narratively, it matters which figures figure figures, which systems systematize systems.⁴

It matters which systems systematize systems. If I understand her correctly, Haraway’s injunction to make kin at the end of her essay is a recasting of her notion of the cyborg that understands “we” are trans-species, trans-material assemblages and that “our” current essentialisms regarding who “we” relate to and who “we” are, are not only profoundly refugee unfriendly (she has in mind refugees: human, animal and all types) but are killing the planet. I couldn’t agree more.

* * *

The alienation of “man” from “nature” brought about by the alienation of man from his product by wage labor (at once capitalizing and digitizing) leads Marx, twenty-odd years after the 1844 manuscripts to the following observation regarding the misunderstanding of nature, man and capital: “[T]here is not one single atom of its value [capital’s] that does not owe its existence to unpaid labor” (Vol. 1, Ch., 24, 405). This means two things 1) that all the value of capital is theft and 2) that nothing of the environment, no matter, is in and of itself of value to capital. Not only

is exchange value content indifferent, it is without material content. Value conferred by unpaid labor accretes to capital via the repurposing (re-ordering, in-forming) of materials, that is to say, the repurposing of raw materials, that is, of matter, for social purposes. Value is not in things but in what has been done to things in their working up within the socio-historical context. We understand from this deduction that capitalist valuation is exclusively, inexorably a socio-historical relation. It is a *form*, an *informing* of matter. More precisely still, it is socio-historical relation indexed by number and organized as early computation.⁵

Marx says explicitly, "As use values, commodities are, above all, of different qualities, but as exchange values they are merely different quantities, and consequently do not contain an atom of use value."⁶ Therefore: 1) The only externalities that can be accounted for in capital are in fact internalities—that which can be valued: the numerable. Use-values can only be represented to capital as exchange-values. Human life itself is only visible to capital as labor power, that is, as exchange value (and living is visible, only as risk). These exchange-values, though external to matter and use, nonetheless index attributes of matter and use by number (notionally as value, practically as price); they are actually moments in capital's calculus of value that can be compared to one another via management. This management has come to be known in sophisticated forms as derivatives, and include the options and contracts of synthetic finance, but also prices, methods of bookkeeping, the laws governing ownership, and really any structure intent upon the profitable management of rights to property. These contracts of ownership linked to exchange values are thus internal to capital's system of valuation, and its system of valuation is its system(s) of account, which is to say, of representation. This content indifferent system of executable representation (calculation, accounting, calculus) permeates discourse and creates ideology. Clearly the extension of these representational capacities into the visual domain through spectacle, cinema and computation opens up another huge field of analysis. Additionally, 2) there is another set of externalities that Sean Cubitt (above) has discussed with great acumen and precision regarding the environment, as have others, writing in the register of transnational feminism such as, Rosalinda Fregoso and Melissa Wright, regarding femicide and disposable life, which is of value only in as much as it is of no account. These realms of no account are the realms of the innumerable—the environment itself, the place where waste can be dumped, people can be starved, raped, harvested and murdered, oceans and atmospheres

polluted, all with impunity, all without being held to account. These externalities in the form of lands, animals, peoples, ecologies, experiences, histories, cultures, genocides, fireflies are included as excluded in capital's conscription of systems of representation. When our very language has been conscripted as a means of capitalist production and reproduction, when it is expropriated and recoded by content indifferent management, the difficulty and perhaps impossibility of making the second externality count is effected to the point of exclusion and these outsides become accessible only by what might be figured as an anti-racial-capitalist, decolonial feminist-queer poetics and politics, where intellection, engaged in active self-decolonization endeavors to neither presuppose nor conform to programs of capitalist conscription.

Our foray into the immateriality of exchange value—an immateriality precisely resultant from the material organization of production and reproduction—along with our sense of exchange-value's structural exclusion of the surround opens the way forward to another key point for *Message*. With respect to the viral onslaught of value as an immaterial abstraction that nonetheless works its way through the presumed externality that is the environment and nearly all other externalities as well, it is today possible to specify value's relation to information. For it is the incipient digitization of the life-world by capital, its development of machines of account—machines that had to be made increasingly interoperable—that paves the way for the “discovery” of information. In reality capital first developed machinic modes of perception and cognition that were sensitive to what would be “information” and then necessitated its invention through the development of general theories of information. Information is a real abstraction.

Information is a real abstraction, the consequence of the historical working up of the material world, not the cause but the effect of alienated labor. As noted at the outset, the specific history of information as an emergent mode of financialization is not properly speaking the subject of *Message*. That history remains to be written! I am only trying to indicate the path. Some writers who sense the close proximity between information and capitalism are already on it. In his brilliant book, *Control*, Sebastian Franklin writes:

The specific valorizing logic of control can thus be understood according to the following proposition: if labor under capital is always already digital, then the digitization of practices not formerly understood as labor—communication, sociality, identity, formation,

attention—forms a necessary precondition for their conceptualization as such. In other words, *digitization* is a precondition for *subsumption*.⁷

Digital Culture 1 is the precondition for Digital Culture 2, the commodification of the life-world is the precondition of post-Fordism, of “immaterial labor,” and of racial computational capital. The exchange value of a commodity, the quantity of “the universal form of value” that it embodies, is immaterial, but is nonetheless a number. What this means is that the value measured in a quantum of money is a number assigned to a process. “The value of commodities is the very opposite of the coarse materiality of their substance, not an atom of matter enters into its composition.”⁸ We see clearly then that there is no substance to exchange value—despite its material mediation it is nothing but the quantitative index of a social relation. This social relation, however, is itself material and historical—“objective” in Marx’s sense.

This quantity of Value, V, indifferent to any and all materials but nonetheless requiring the operations of a biological and material substrate that crystallizes a constellation of social relations (originally the commodity in *Capital*, originally wage-labor in the 1844 manuscripts), is, in essence, an abstraction—a number assigned to a matrix of social relations through the very operation of these relations: exchange value, abstract universal labor time, the basic building block of a humanity measured by clocks. It depends upon the historical emergence of a set of increasingly coordinated practices and interconvertible measurements that have become generalized, and universal in the sense that they are inexorably transmitted across the planetary situation. This requires what in a long ago essay on Dziga Vertov I referred to as the meshing of what Ernst Bloch called non-synchronous temporalities, as well as the incipient digitization presided over by the world market. The organization of the world by means of digitization has been going on for some time. Franklin’s *Control* clearly articulates Charles Babbage’s view of God as a grand programmer, his “view of the universe as fundamentally digital,” and in a lucid argument about the incipient digitization brought about by capitalism he “posits Babbage’s world view as a proxy for capital’s optimizing gaze.”⁹ Given the encroachment of digitality and Marx’s clear notion that value is an immaterial number assigned to a matrix of social relations, we prick up our ears then when we hear Norbert Weiner conclude in his essay “Computing Machines and the Nervous System,” that there exists an immaterial domain called “information” present in

relation to any given phenomenon: “Information is information, not matter or energy. No materialism that does not admit this can survive at the present day.”¹⁰

The wager then is that not only does “not an atom of matter enter into” the composition of information, but that information emerges in the foot print of capitalist valuation—it is not “nature” in any naive or unmediated sense but rather value achieving a new order of self-consciousness, self regulation and interoperability. The connection to cybernetics is now clearer. Weiner writes:

We have already spoken of the computing machine and consequently the brain as a logical machine. It is by no means trivial to consider the light cast on logic by such machines, both natural and artificial. Here the chief work is that of Turing. We have said before that the *machina ratiocinatrix* is nothing but the *calculus ratiocinator* of Leibnitz with an engine in it; and just as modern mathematical logic begins with the calculus, so it is inevitable that its present engineering development should cast a new light on logic. The science of today is operational; that is, it considers every statement as essentially concerned with possible experiments or observable processes. According to this, the study of logic must reduce to the study of the logical machine, whether nervous or mechanical, with all its non-removable limitations and imperfections.¹¹

The reference in Weiner is Turing’s 1936 paper, “On Computable Numbers, with an Application to the Entscheidungsproblem,” in which the machinification of computation was proposed as a universal possibility—one that gave rise to what became known as the “universal Turing machine.”¹² This paper generalized the thinking already present in Charles Babbage’s and Lady Lovelace’s steam driven analytic engine, effectively showing not only that all mathematical process could be machine driven but that it was fundamentally machinic. *The abstraction that was the calculus of Leibnitz and Newton was thus always already the thinking of machines.* Marx argued that the organization of machinery created a “vast automaton” out of fixed capital in which workers were only its “conscious organs” and capitalists did the thinking of capital. So too then, the mathematicians—those who so rigorously enumerated the calculus of space and time. They did the thinking of machines. Given the mesh between industrial history, the machinification of thought and

capitalist accumulation, the conjecture that computation is the auto-poiesis of capital implies that information is its representational medium.

Built on machines, but an immaterial isolate of machines, computational process proposes to be content indifferent and medium indifferent—the universal Turing machine implies (in the abstract) that one computer is as good as another. Our abiding insistence that this indifference to history and specificity is not the case in computation is the equivalent to an insistence that there is or must be a persistent form (persistent forms) of non-capitalist valuation. If there is not a single atom of matter in exchange-value, then neither is there a single atom of matter in information or computation. Weiner says as much. What then of the rest, of the body and the flesh—of what matter is matter? Regarding the immense edifice of computation from the standpoint of life not (not yet? not completely?) taken up as labor by capital, that is, from the standpoint of what Neferti Tadiar calls “remaindered life,” the machine as The World Computer, is at once basis and externality.¹³ It is violently alienated intelligence as condition of possibility.

In addition to splicing machines and brains into the same circuit, informatics can therefore be understood as the “subjectivity” of the objective situation of “man,”—non-conscious thinking (at least so far as humans have been concerned), emerging in a world grown increasingly complex and abstract: in a word, “operational.” The *machina ratiocinatrix* speeds up (motorizes) the calculus in a capitalized world, “essentially concerned with possible experiments or observable processes,” because, dependent upon innovation capital must stave off the falling rate of profit. But just because machine-mediated logical operations are non-conscious in a human sense in no way implies that they are not self-conscious in a machinic sense. They are self-reflexive in the same manner that, as Turing pointed out in his essay published in *Mind*, computation works on its own operations and store of information. They are also not without vectors of intention, for what else is logical problem solving but an algorithmic approach to representations of life—a program. As Turing emphasized, humans are often surprised by the outcome of programs they themselves set in motion. The human mind does not and cannot immediately grasp the logical implications (outputs) of a program and its inputs. Today, actually existing computers outpace the narrowly biological mind’s capacity in this respect by orders of magnitude—in algo trading, but everywhere else as well. This machine-thinking, that outpaces life, is precisely the thinking of sedimented, dead labor.

Of course, machine-thinking is today nothing if not cybernetic. The machine operator who once worked on “their” machine now works in the machine. Machine thinking has re-sculpted perception and mind for seamless interface and near total capture. The amortized consciousness of sedimented historical sensual labor, expropriated by capital, welds itself to current thinking and by enveloping, enclosing, ramifying and programming it, organizes it in ways that are at once extremely subtle, broad-spectrum sensual, and nearly impossible to disarticulate from any possible form of awareness. That’s why the kids are all sick: “augmented” reality. But we must wager that “we” retain the capacity to note the spectral character of life as well as the encroachment of what Achille Mbembe understands as necropolitics in which death and power over death is the vernacular of power. When death is the medium of expression, how might the living signal our aspiration?

For Marx, the information that is the exchange value of a commodity has a legible dimension/approximation (its price), and a dimension that relies on social relations that are fundamentally unconscious. “The commodity is exchange-value but has its price.”¹⁴ Price is not one with value, but is, rather “notional.” This means to say that when the commodity realizes its price in a sale, the relations and ratios informing the sale are gleaned from background information processing and abstraction, some of which is pre-conscious or unconscious. Seizing upon these same relations with machinic computation posits that they might be given symbolic form in a register that departs from the market—one that is representationally adequate to the market but not, in the first instance, the market. We may position the history of information theory as the effort to formalize these relations in executable form while eschewing the dialectical call for understanding an abstraction, a machine or an abstract machine in relation to its social embedding. Dialectics surfaces the repressed of information, namely noise. “Information” was and remains a way of treating the social as an externality—as noise. This tension between the formalizations of political-economy via the principles and practices of exchange value (and now financialized computation) with dialectical critique precisely describes Marx’s struggle with representation (*darstellung*): how to represent capital in a way that at once follows the movements of production and the capitalist market and comprehends it such that the hegemony of that market might be transcended.

Dialectics endeavors to outpace the market and outthink computation. But we need to be aware that the insights of dialectics are hardly immune

from market digitization. Take for example the insight, “Money does not effect the actual circulation of commodities in space and time. It merely realizes their price in a way that transfers the title of ownership to the commodities to the purchaser, to the person who has offered the means of exchange. What is circulated by money is not commodities, but the titles of ownership to them.”¹⁵ Almost 150 years later, we can clearly grasp from Marx’s statement about the social dimension of exchange, what is becoming an axiom of crypto-currencies: monetary circulation is a matter of informatics and contracts. The traffic in rights to ownership mediated by money are antecedents to forms such as the bitcoin blockchain and Ethereum’s programmable blockchain and “smart contracts” developing in the twenty-first century. The current thinking on crypto refers to this immanent restructuring of finance by computational money-forms as “the internet of value.” The visionaries here are not imagining crypto as a mere replacement of “fiat money.” Building on the practices of post-Fordist economy and cognitive capitalism, it is clear that money executes a transfer of rights by means of quantification and more or less understood that social process will be ever more intimately wedded to financialization and encrypted as money in real time. A new computational layer of communication and datavisualization that formally binds financialization to representation (of intention, identity, visibility, aesthetics, etc.) is in the works: “the internet of value.” A century and a half ago Marx’s dialectical method resolved aspects of property relations that are now being self-consciously utilized in the build out of crypto-currencies. However, none of these currencies are post-capitalist—at least not yet.

The degree to which the inner dynamism of the commodity form can be elaborated is testified to in the writings of Marx and beyond—it is elaborated even in communist revolutions. However, one thing is clear: this “thing” called value is constituted by both a social relation and a civil contract; it is thus, also, a tacit collective agreement that there are pre-individual and trans-individual forces at work in the market. Theses organizational forces, manifest in and through wage labor, alienation and private property (a causal chain, if one recalls the exposition in the 1844 manuscripts, that becomes recursive) and the logistics thereof, are the precondition of the exchange of equivalents in the market. The market as information machine, as itself a computer, an understanding already achieved by Hayek in 1945, was less a discovery of informatics, than a pre-condition for the emergence of informatics. Dissolving here

(a la 2001) from the primeval bone toss of Marx's dialectical analysis of industrial capital to the orbiting space stations of Google, Facebook and bitcoin, one could say that the becoming economically conscious of the fine lattice-work of informatic relations and the understanding of them as simultaneous means of production and communication is in fact the significance if not the meaning of the internet—at least from the standpoint of capital. As I said of cinema in the *CMP*, the dominant mode of representation has become the dominant mode of production. Taken as a whole, the internet is the nonconscious cognition of “man,”—the cognitive process of the market in the largest sense, that then processes its conscious organs.¹⁶

As a kind of aside, my own view of the nonconscious status of AI, is one of extreme skepticism. Let's pull our heads out of the sand, shall we? Just as machines operate at orders of magnitude faster than human brains (beneath or beyond the level of human discernment) so too does the daibolical intelligence of the market. Marx clearly understands these market relations (their intelligence) as forcibly imposed.

“[T]he totality of the process appears as an objective relationship arising spontaneously; a relationship which results from the interaction of conscious individuals, but which is neither part of their consciousness nor, as a whole subsumed under them. Their own collisions give rise to an alien social power standing above them. Because circulation is a totality of the social process, it is also the first form in which not only the social relation appears as something independent of individuals, as, say, in a coin or an exchange value, but the whole of the social movement itself.”¹⁷

In brief, this analysis of circulation, its elision of conscious relations, and its imposition of market conditions on human existence accounts for and historicizes both Adam Smith's invisible hand in which the pursuit of individual interests serve the general interest and Hobbes' naturalization of the war of each against all and brings us into the present. By drawing an arc that spans from Hobbes' Leviathan and Smith's invisible hand to Google's invisible mind, we may grasp that Marx's analysis of the social totality is indeed a proto-theory of both AI and of the unconscious: the commodity form is a symptom (a fetish) requiring the depth hermeneutic of the dialectic. For us it also provides the basis for a theory of the computational unconscious and a means of historicizing information as the

product of alienated labor. The unconscious is structured like a language, a computer language. This computer language is in us more than “us.”

Thus one sees through Marx’s analysis of monetary circulation, the instantiation of the individual:

“Money ... as the individuality of general wealth, itself emerging from circulation and merely representing the general, as mere social result, implies no individual relation at all to its owner, its possession is not the development of any one of the essential aspects of his individuality, but rather possession of something devoid of individuality ...”¹⁸

The subjective dimension is given as follows:

“Money is therefore not only *an* object of the quest for enrichment, it is *the* object of it ... Avarice is possible without money, but the quest of enrichment is itself the product of a definite social development, not a *natural* in contrast to an *historical* development. This explains the lamentations of the ancients about money as a source of all evil. The quest for pleasure in its general form and avarice are two particular forms of greed for money. The abstract quest for pleasure implies an object that can embody the possibility of all pleasures.”¹⁹

Marx continues, “The greed for money or quest for enrichment is necessarily the downfall of the ancient communities ... ” It is itself the community and cannot tolerate any other standing above it.²⁰ “Where money is not itself the community it must dissolve the community.”²¹ Given this notion, or at least intimation of a communal totality—here viral, cannibalistic and alienating, “the false community of the spectacle” as Debord would say or “the communism of capital” as Virno has it—there is the strong suspicion on the part of economists and entrepreneurs (but also among some revolutionaries) that some (non-humanist) episteme (Althusserian science?) ought to be adequate to these relations; this episteme is generally known as social, or political, or economic science, but has become computer science. Leaving aside for now the question of the singularity, in which the sedimented and alienated consciousness of capitalism as computational power becomes irrevocably self-conscious (I just suggested that for all practical purposes, it has) and which by definition would outpace our thought, we should be able to grasp clearly that any version of Marxist social science (at least) needs to become

Marxist computer science; Marxist critique of political economy needs to become Marxist critique of the digital/attention economy of racial computational capital. Thus we require a Marxist theory of information. I hasten to underscore here—and this is the point of making this argument for a Marxist theory of information only one chapter in the larger work that is *Message*—that the Marxism I have in mind registers capitalism as racial capitalism, and understands it as axiomatic that the difference made by information is always social difference.

The imperial masters of social, now computer science (not the mere academics relegated to our pay silos and Twitter “feeds,” but the practitioner-entrepreneurs), feed their avarice, their abstract quest for pleasure in general and the object that in Marx’s phrase “can embody the possibility of all pleasures,” by decoding the social/computational logic of the community—of any phenomenon whatever—formalizing it, and developing a proprietary relation to that formalization. They call “their” insights nifty things like “Google” and “Facebook” and “Apple” and help to devour prior social orders by moistening them with information and re-organizing communication. Progress is bound less to their genius and more to their proprietary rights. Can we reengineer these relations?

The control of communication, as Weiner noted, is the very strategy of the “Lords of Things As They Are.” This current control of communication has meant the instantiation and control of information, a control that in turn means a control of the market, and of social production and reproduction. The decoding and recoding of social practices in a proprietary vein is the precise logic of the start-up, as well as that of speculative markets, particularly that of the markets for celebrity, “tech” and art. Why? “The abstract quest for pleasure implies an object that can embody the possibility of all pleasures.” Content indifferent information is the contemporary analogue for content indifferent pleasure. The greater the accumulation of information, the greater the quantity of abstract pleasure. Without diminishing the brilliance of the achievements manifest in these corporate platforms, which do indeed harness collective aspirations and abstract an eon of collective praxis, we can also see what drives them. They embody the same logic of abstraction that drives many of the rest of us to abjection, sleeplessness, psychosis, insanity, precarity, outrage, breakdown, migration, starvation and/or death, in the unequal distribution of dispossession. Within the dialectics of avarice they offer the lure of increased sociality, and in return they strip-mine our libidos, our neuronal powers, our cognitive capacities,

our language, our imagination and our time. In the twenty-first century it is paradigmatically social-media, the grim reaper, which extracts content indifferent value from the myriad qualities of social life to provide an elite coterie of vested owners with what can embody the possibility of all pleasure, namely, money and the informatic control of rights.

Within the space of the social, information, in contrast to what we better understand as the community of exchange values, does not, at least until now, appear as social; it has been expressed as a property of things—"neither matter nor energy" and there with or without an observer (according to its observers, anyway). It is what communicates even between non-sentient things that otherwise do not communicate. It is, as Benjamin critically observed, the antithesis of narrative and the annihilator of experience. We search information in pursuit of life and in flight from death, doing what we can to avoid the crashing of the wave. And while we would be solipsistic and even foolish to imagine that after our own deaths, nothing means anything, it is perhaps slightly less egocentric to wonder, "What of the cosmos beyond the life-span of our visible generations, or even of 'our species'?" In as much as we believe in the immortality of information, is there really any question we can pose that is not also in some way about our own place in the universe, that does not posit our own critical consciousness even after it has logically disintegrated? While there is within this reader-writer an impulse to say yes, it's not all about "us" and better if it isn't, I must confess that I/it is not sure—I/it is perhaps unable to escape the originary ethnocentrism of the sign and its extension into informatics. However, I also recognize that not caring about those in the future is analogous to not caring about those in the present or the past; we may be removed from them in a narrow way, but there are many many tendrils that link our fates together in the web of time. It only matters if it matters. If information binds us together in a negative way, what about the historical emergence that is the consolidation of the net communal will of what has been? What about the echo and persistence of all the endurance, survival, communication and aspiration that built the apprehension of the indifferent infinity called information? However bound by autopoietic limitations the answers to such a question about cosmic meaning may be, when regarding the relation of information to community our responses do not need to fall back into an identitarian framework, nor, in recognizing the alienation of so much intelligence, do they need to fantasize a return to origins. However, we may and indeed must ask, if death has developed such an

articulate, infinite and immaterial infrastructure, wherefore life? If there is so much death in our information, in our images, in our streets, in our borderlands, and in our persons, what of the living that are marooned at the edge of space and time?

Can we say (in agreement with Brian Rotman's groundbreaking work on mathematics as sign system in *Signifying Nothing*) that information, likewise, elides the subject (I, God, totality) even as it smuggles in its ghost. This degree zero of information we should call the myth of non-presence (the presence of anti-presence that ushers in presence under erasure), a deep conviction, or rather a theology of the irrelevance and non-existence of what used to be called the human species, a world-view ceaselessly dedicated to the absence of concrete human agents, but no less ethnocentric for all that.²² Information, "the difference that makes a difference" as Bateson said, derives from the Latin nominative and the Latin verb *informare* (*to inform*) which means to give form or to form an idea of. "To give form, therefore I am." As an expression of maroonage we can re-write this grammatological formulation as "Information, therefore I am." The post-structuralist rewriting of Descartes, in which "think, therefore I am," expresses that the subject is an artifact of grammatical function, a phantom presence generated only after the fact of, that is, in the very movement of sign function, of the symbolic, of the signifying chain, expresses that the subject of information as presence is therefore also a myth, an artifact that merely suggests metaphysical presence, rather than a pre-existing agent. I is a predicate rather than a subject who is always already absent—this famously, was "the myth of presence." The spectral I of information, the informatic dividual, megalomaniacal and abject, is indeed the spirit of contemporary capitalism. Secular religion, an ascetic ideal. Knowing all devouring information encompasses the cosmos, therefore I am. And yet, in accord with an idea I develop elsewhere as the politics of the utterance, the strategic voicing of this spirit, this immaterial cybernetic consciousness so firmly grounded in and dependent upon the totality of the material array, matters profoundly. Does it hew toward all that appears, that is, to the spectacle and data-visualization? Or, might this spirit, Turing's trans-substantiation, also be a specter, the product of so much disavowed violence that may yet devise strategies to hew toward all that is disavowed, disappeared, invisibilized, haunting and forgotten, as these unremembered violences are nonetheless part of this history of its moment of emergence and therefore part of what it is?

The perception of information *qua* information, the analytical instantiation of the category itself, clearly has its origins in history and in sociality. Today there is almost no escape from the legacy of that perception: we are all part of the history of technology and all haunted by presence. Such is consciousness. Our emergence as an affordance of fixed capital is bound up with planetary materiality and information. Dominant history has it that the category of information arises and is formalized as an intervention in the merely social by punchcards, quantum physics, cybernetics and communication theory. Indeed, as ostensibly autonomous realms, the cumulative result of these emergent disciplines was a mythic generalization of the logistics of inscription of information as the fundamental cosmic modality. Thus information is now at the foundation of any event whatever—indeed any and every event without exception at least in the multiverse of computational physics. Here we have wagered, a bit more precisely, that information arises in the footprint of the value form and that value as an immaterial number assigned to a social relation was indeed the precursor to the conceptual matrix that became information. Information: a way for value to get more value. No doubt this work of analysis can and will be done better and more thoroughly, but we have established that the cybernetic social totality of the computational multiverse has capitalism in its DNA. (Literally of course, since the discovery of the role of DNA was itself premised on an informatic model).

Information as “the difference that makes a difference” was in fact informatics’ very own concept of *differance*. A deferral of meaning that found dramatic expression in many domains, for example, Shrodinger’s cat, who was alive and dead until one had a look. The fact of information has been generalized as a universal principle, visible everywhere one looks and, what’s more, everywhere one does not look, but could. We thus concur with critical race theory’s critique of dominant discourses of post-humanism in our analysis of information: it places the sovereign subject of colonial humanism (white, male) under erasure while leaving it operative. Technology as “white mythology” says Joel Dinerstein, Posthumanism as having afro-futurist, anti-racist, decolonizing roots in the rejection of the racist category of the human says Alexander Weheliye. Information as the further deracination of exchange value (itself dehistoricized and naturalized in everyday experience), and as the temporary suspension of price from propriety, serves as in an interum calculus that has value inputs and outputs at each end. It casts its

net(work), its informatic reticulum, into speculative domains that have financialized protocols operationalized before and after. The endless flux of the cosmic informatic churn, presents an endless array of virtual subjectivities, any of which might become vested. NSF grants and medical research are the most obvious examples of this process, and all research, as Flusser says, aspires to be photographed, which for us, is another way of saying that it unfolds in a capitalist milieu bent upon the bio-mediated extraction of information.

As we shall see in greater detail in the final chapter, the general formula for capital, $M-C-M'$ becomes $M-I-M'$, where I is information. As simple circulation, it returns a value equivalent, but as capital, the very informationalization of money and life also assumes a machinery of value extraction: Facebook, bitcoin, the NSA, Tech. This shift in the general formula of capital, in which surplus value is extracted by means of the human-mediated production of information, is the key to any understanding of post-Fordism and begins to forecast what's beyond. In a nutshell, information as a universal property of things means that the entire universe is posited as an interoperable site of financialization. The machines that measure information and the informatic results they procure/produce are inscribed with ever increasing granularity between M and M' .

Thus information as a presumably value-neutral category represents the cosmic naturalization of digital market relations. Under such conditions, we may be sure that any super-intelligent machine we make, (along the lines say, of any of those discussed in Nick Bostrom's *Super-Intelligence*) will be the algorithmic embodiment of our history—of objectified humanity savaged under racial capitalism—and not the objective (as in ahistorical and value-neutral) embodiment of some deracinated universal Absolute Intelligence—which is to say that it is likely to be totalitarian with respect to any and all inferior races, the so-called human race included. Shanon's words now sound almost as chilling as they were prescient: "I can visualize a time in the future when we will be to robots as dogs are to humans ... I'm rooting for the machines!"

Situating the emergence of information theory and practice in the history of capitalism (and keeping in mind the fate of Pavlov's dogs), it is thus legitimate and indeed historically and politically necessary for us to ask: Is it Information that transcends Value, making Value just one instance of Information (ambient in markets); such that a category or

superset that contains value as a subset led to the discovery of many other subsets of seemingly immaterial variables that index more general relations; or, does Value transcend Information, the latter of which as a category appears to be even more autonomous and therefore abstract than Value but, in actual practice, only operates/appears within the domain of Value (and markets), and thus not only in the domain of sociality per se but of Capital? Is informatic process the very means by which racial capitalism continues to expand its Imperium? No amount of “OOO” is going to answer that one, I’m afraid. What we need is a critique of Digital Ideology that re-subjectifies and historicizes the ostensibly non-subjective and ahistorical, a critique that, once having out-informed information, is not content to rest there, but is committed to develop new methods, idioms, and practices capable of recognizing the instrumentality of processes of digital occlusion and exclusion, and to actively refuse non-existence by demanding new methods of account. This critique must understand its own embodiment, its own emergence from *within* the framework of racial capitalism even as it writes in the name of an outside.²³

Otherwise, the world will go on as it does, intensifying its violence, its environmental destruction, its genocide and radical dispossessions. To be clear, this murderous future is the path we are currently on since the planetary communication system—its integrated system of accounts—kills people(s) in its everyday operations. Racial Capitalism is another name for intergalactic information processing as we know it. Computational Capital as communication system, a militarizing apparatus and a distributed factory, crunches numbers and many of these numbers are people. We, the substrates of computational capital ... The devaluation of the 2 billion dispossessed and living on two dollars a day, as accomplished by advertising, nationalism, imperialism, militarization, “aid,” borders, internet, educational systems and art, is part of the general, world-wide devaluation of the working day with regard to the fixed capital embodied in machines and their information. The historical devaluation of those in the Global South is thus far only intensified and exacerbated as the processor extends its range and resolution.

Information is alienation distributed. It paints the cosmos with sedimented dead labor. To speak in the vernacular, it is the inhuman perceived by the inhuman in a matrix that encompasses what used to be human. It is an “object” that exists everywhere for a “subject” that exists nowhere. As the communication of the stolen sedimented dead

labor that is capital accumulation, it is an abstraction meaningful to an abstract machine—all of which transpires with absolute indifference relative to the use-values afforded, including the use-value known as “you.” Your own particular value, based upon your production price and the value that your virtuosic activity gives to the computer that is capital, is calculated as a multiple of removes from absolute dispossession. Even if your multiple happens to go up (even if you are worth 50 or 500 times the lowest common denominator of “human” life), the general value of humans (or is it *humans*?) approaches zero while the extraction of productive activity still remains essential. Because capital depends upon labor, and laborers are increasingly devalued in relation to the cosmic expansion of fixed capital as information, we see increasingly intensive exploitation on increasingly massive and increasingly granular scales. The falling rate of profit brought about the decrease in the relation of the value of labor power as compared to fixed capital is compensated for by the extension of the working day to every and evermore waking hours, and the proliferation of metrics of extraction to linguistic, psychic, neuronal and metabolic levels. Likes, movements, heartbeats, pheromones and prison time are all value-productive for someone as every attack surface of the body and cerebellum is exploited. The devaluation of life on Earth is the mirror image of the cosmic distribution of information.

Computation is the reticulated extension of financialization. We are back to Tarkovsky’s *Solaris*, in which the history of suffering is the very medium through which one apprehends the cosmos. Thus we have an image of the world media system and thus we may grasp the emergence and most general function of informatics in computational capital. Despite what the ideologues will tell you, neither your soul nor ambient information have escaped capitalist valuation. The very fact of information and its metrics, both the data and the infrastructure that records, measures and posits it, is the result of alienated labor: sedimented dead labor, theft. Yet some think it is just information that wants to be free.

Does the “notional” assignation of price really begin to extend itself into the subatomic and the universal? Already, the cost-benefit analysis called the atom bomb seemed to say yes. So too does the large space telescope, the Higgs-Bozon particle colliders, and all the seemingly autonomous science undertaken without a serious regard for global inequality. John von Neuman, who Philip Mirowski credits with having invented both the A-bomb and modern computing in 1943, may have

been remarking on the relation between the specific and the general case when he said, “I am thinking about something more important than bombs. I am thinking about computers.”²⁴

And then of course, there is the oh-so-familiar computer-mediated financialization of everyday life. Interface, get paid. Move up the value chain on Instagram or at your institute, get paid. Garner those attention metrics, get paid. In the context of my overall argument regarding computational capital, our re-placing of the “universality” of information by and indeed within the domain of exchange value cosmically posited brings the entire armature of information back to McLuhan’s chicken: Information, an egg’s idea to get more eggs.

In conclusion, information is but game theory for eggs. Well, at least we have posed the question: “Was information value’s idea to get more value?” There may not be a definitive answer, but new pathways for thought and praxis open when the logic gate selected is “Yes.”²⁵