THE CRITIQUE OF DIGITAL CAPITALISM

AN ANALYSIS OF THE POLITICAL ECONOMY OF DIGITAL CULTURE AND TECHNOLOGY
The Critique of Digital Capitalism
An Analysis of the Political Economy of Digital Culture and Technology

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Anything that can be automated, will be. The “magic” that digital technology has brought us — self-driving cars, Bitcoin, high frequency trading, the internet of things, social networking, mass surveillance, the 2009 housing bubble — has not been considered from an ideological perspective. The Critique of Digital Capitalism identifies how digital technology has captured contemporary society in a reification of capitalist priorities, and also describes digital capitalism as an ideologically “invisible” framework that is realized in technology. Written as a series of articles between 2003 and 2015, the book provides a broad critical scope for understanding the inherent demands of capitalist protocols for expansion without constraint (regardless of social, legal or ethical limits) that are increasingly being realized as autonomous systems that are no longer dependent on human labor or oversight and implemented without social discussion of their impacts. The digital illusion of infinite resources, infinite production, and no costs appears as an “end to scarcity,” whereby digital production supposedly eliminates costs and makes everything equally available to everyone. This fantasy of production without consumption hides the physical costs and real-world impacts of these technologies.

The critique introduced in this book develops from basic questions about how digital technologies directly change the structure of society: why is “Digital Rights Management” not only the dominant “solution” for distributing digital information, but also the only option being considered? During the burst of the “Housing Bubble” burst 2009, why were the immaterial commodities being traded of primary concern, but the actual physical assets and the impacts on the people living in them generally ignored? How do surveillance (pervasive monitoring) and agnotology (culturally induced ignorance or doubt, particularly the publication of inaccurate or misleading scientific data) coincide as mutually reinforcing technologies of control and restraint? If technology makes the assumptions of its society manifest as instrumentality — then what ideology is being realized in the form of the digital computer? This final question animates the critical framework this analysis proposes.

Digital capitalism is a dramatically new configuration of the historical dynamics of production, labor and consumption that results in a new variant of historical capitalism. This contemporary, globalized network of production and distribution depends on digital capitalism’s refusal of established social restraints: existing laws are an impediment to the transcendent aspects of digital technology. Its utopian claims mask its authoritarian result: the superficial “objectivity” of computer systems are supposed to replace established protections with machinic function — the uniform imposition of whatever ideology informs the design. However, machines are never impartial: they reify the ideologies they are built to enact. The critical analysis of capitalist ideologies as they become digital is essential to challenging this process. Contesting their domination depends on theoretical analysis. This critique challenges received ideas about the relationship between labor, commodity production and value, in the process demonstrating how the historical Marxist analysis depends on assumptions that are no longer valid. This book therefore provides a unique, critical toolset for the analysis of digital capitalist hegemonics.
The Scarcity of Capital

The collapse of the United States’ “Housing Bubble” in 2008 is the logical and inevitable result of the illusion of production without consumption. However, in spite of the financial collapse, the bailouts of insolvent financial institutions, and the on-going disinflation, credit, and value collapse, the institutions receiving bailouts became stronger as a result of the bailout\(^1\) indicating a fundamental change to the relationship between the physical commodity-form and immaterial values identified with currency and financialization. Financial “bubbles” are an inevitable result of a systemic shift focused on the generation of value through the semiotic exchange and transfer of immaterial assets. In the case of the “Housing Bubble,” those assets being traded were based on mortgages—debts generated without regard for the reality of underly-

\(^1\) Simon Johnson, former chief economist at the International Monetary Fund, quoted on *Bill Moyers Journal*, April 16, 2010, http://www.pbs.org/moyers/journal/04162010/profile.html: “The big banks became stronger as a result of the bailout. That may seem extraordinary, but it’s really true. They’re turning that increased economic clout into more political power. And they’re using that political power to go out and take the same sort of risks that got us into disaster in September 2008.”
ing, physical assets and the labor needed to meet those debts. The failure to address the immanent source of the problem precipitating the crisis—the default on underlying mortgages—and instead focusing on the financial institutions (whether it is through “bailouts,” regulation, or investigation of “fraud”) is a demonstration of the shift that has occurred from a physically productive economy to one based on semiotic manipulation; this situation has not been addressed by conventional media or analysis, and requires a consideration of how other, systemic factors of immaterialization are determining the kinds of choices available in order to engage these crises when they arrive.

How the collapse of the “Housing Bubble” has been addressed internationally reveals and validates the transformation from productive labor to semiotic manipulation, and consequently, in the various government “bailouts” focusing on reifying the immateriality of markets against physical limits by suspending mark-to-market valuations of assets, an

2 Alan Greenspan, “Letter to SEC Chairman Richard C. Breeden,” November 1, 1990, states: “The Board believes that market value accounting raises a substantial number of significant issues that need to be resolved before considering the implementation of such an approach in whole or in part for banking organizations. Accounting methodology should be developed to measure the results of a particular business purpose or strategy; it is not an end in itself. For an institution whose business purpose is to trade marketable financial assets on an intra-day basis, for example, closing daily market values would measure the success or failure of that particular business purpose. An end of the day balance sheet, marked to market, is clearly the appropriate accounting procedure in the example. Generally, the business strategy of commercial banks, on the other hand, is to employ their credit insights on specific borrowers to acquire a diversified portfolio of essentially illiquid assets held to term. The success or failure of such a strategy is not measured by evaluation such loans on the basis of a price that indicates value in the context of immediate delivery. Clearly, one aspect of value in an exchange is the period of delivery. But the appropriate price for most bank loans and off-balance sheet commitments—is the original acquisition price adjusted for the expectation of performance at
action thus enabling the generation/maintenance of the immaterial values created in the asset bubble. The continuing disjunction between physical assets and their role as immaterial tokens within a system of exchange are suggestive of larger, more systemic crises to come: the underlying problematic of debt generated as a side-effect of immaterial production (the transaction costs posed by the semiosis, subsequently doubled by bailouts that serve to regenerate or “reinflate” the initial asset bubbles through additional sequences of sale and resale sponsored by government agencies for the protection of the markets and those who profit from them) hypertrophies the underlying pathology by creating additional debts and, paradoxically, by increasing the value of assets whose uncertain values are the cause of the initial panic, evident in the collapse of the asset bubble itself.

Debit-versus-production was a systemic dynamic in the early twenty-first century “Housing Bubble,” revealing a semiotic process (a procedure of sampling/remixing), and the denial of the importance of the actual, physical commodity form: property owners’ ability to pay their debt whose fragmentation, combination, and reduplication resulted in the (digital) investment security. It was both the exchange of these derivative securities and the extension of credit to almost anyone who would request it (in the form of “0% down,” “Alt-A,” or interest-only mortgages) that generated the immaterial securities sold in the capital markets, producing an expanding network of assets and the steadily escalating values necessary for wealth extraction. At the same time, the significance of the physical asset was denied in a literal demonstration of the aura of the digital’s break with physicality, where new values were primarily created by the re-packaging/semiotic manipulation of securities generated from mortgages (CDOs and other mortgage-backed securities), and secondarily from the accompanying sales of actual real estate. The physical commodities (houses) were only signifi-

maturity. It is only when that price differs from the book value of the asset that an adjustment is appropriate.”
cant to the extent that they could provide debts; the transfer of these debts (mortgages) into securities (Collateralized Debt Obligations) for semiotic manipulation and resale in derivative markets (accompanied by “insurance” in the form of Credit Default Swaps). Once translated into a virtualized form, their physical basis and link to productive labor was denied. The collapse of the “Housing Bubble” in 2008 precipitated from increases in the payments mortgage holders needed to provide each month on their housing debt due to their adjustable rate mortgages increasing their monthly payments above a value they were able to pay. 3 This denial of the physical basis is apparent in the Troubled Asset Relief Program’s (TARP) focus on the virtual, semiotically-manipulated investment securities derived from mortgages, 4 rather than on preventing further defaults on the underlying mortgages themselves; it is the default of the mortgage holders due to the scarcity of capital to meet their mortgage obligations that created the collapse of the “Housing Bubble” itself, and caused the “Credit Crisis” in 2009.

Ruptures between physical asset and virtual commodity become apparent in TARP’s acquisitions of the devalued mortgage-backed securities: the value of securities whose redeemability had fallen into question was conserved by removing them from circulation at full value (hence it was a bailout). The underlying physical limit imposed by the scarcity of capital created the “freeze” of credit in 2009. Scarcity of capital appears via the problematic function of fiat currency, a lacuna formed in the dynamic of immaterial values expanding up to the limit of the physical ability to meet those demands. Agents within this system have their roles prede-

4 The TARP program was launched by the Federal Reserve Bank on October 14, 2008. For more information on that first and subsequent programs, see http://www.treasury.gov/initiatives/financial-stability/TARP-Programs/Pages/default.aspx.
terminated by the nature of the system itself; it is not a matter of an elitist conspiracy that digital capitalism acts as it does, so much as it is the requirements of systemic equilibrium that force specific actions.

Real estate formed the evident basis for the 2008 bubble and precipitated its collapse: those mortgages that were recombined and portioned into multiple, derivative assets—the superficial value based in payments made by mortgage holders each month—had in fact become secondary to the exchange and sale of the derivatives, credit default swaps (insurance), and other secondary, superstructural assets generated from them. It was the widespread creation of these derivatives based on housing debt that was the wealth-producing force in the expansion of the “Housing Bubble” in a self-reinforcing cycle where the production of additional derivatives acted systematically to spur mortgage (debt) creation; when the mortgages with adjustable interest rates increased the monthly payments beyond a value the actual mortgage holders were able to pay, the bubble burst in the panic over which derivative assets were no longer valuable, endangering all mortgage-backed securities (and the insurance issued as “protection”). The problematic nature of these defaulting mortgages was, and remains, an issue of wages vs. debt. Nevertheless, TARP’s focus in dealing with the problems posed by this economic collapse was not on physical assets (the mortgages in default or in danger of default or the issue of wages used to make payments on this debt), but on the virtual, semiotically-manipulated investment securities derived from them. This apparent discrepancy has received little attention or consideration.

Scarcity of capital within this construction becomes apparent via the inherent imbalance emergent in the breach between existing values and the number of potential future claims posed by a derivatives market whose value is significantly larger than the quantity of immanent labor (physical, automated and immaterial) available to produce new physi-

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5 Bernanke, “Four Questions about the Financial Crisis.”
cal values to match those claims; however, it is not a question of commodity values vs. speculative values, but between rentier claims (titles to production values) and production capacity. It is this mismatch between capital and rentier claims that was exposed by the collapse of the 2008 “Housing Bubble” and that became apparent as the “Credit Crisis” of 2009. Bank insolvency, for example, emerges precisely because investors held more claims on value-to-be-produced than there are available values to be claimed. This type of failure is a feature of how semiotic transactions develop values independently of physical assets.

The illusion of production without consumption that produced these crises is central to my conception of the digital proposed in chapter three, “Aura of the Digital.” The digital is a symptom of a larger shift from considerations and valuations based in physical processes towards immaterial processes; hence, “digital capitalism” refers to the transfer of this immateriality to the larger capitalist superstructure. Because the digital is a semiotic realm where the meaning present in a work is separated from the physical representation of that work, the “aura of the digital” describes an ideology that claims a transformation of objects into that semiotically-based immateriality. At the same time, the digital appears as a naturalization of the concentration of capital, since the digital itself poses as a magical resource that can be used without consumption or diminishment, leading to a belief in accumulation without production. This shift from a basis in limiting factors and scarcity is inherent to the immaterial form posed by the digital; at the same time, it denies how scarcity of capital is imposed by the dual forms of interest and profit on capital expenditures.

The force that is evident as the immaterial form of digital capitalism is a transformation of the underlying relationship between the universal equivalent, based in the physical commodity-form, in its role as currency in Marx’s formulation, and its valuation, independent from its role as marker-of-exchange, as physical commodity. Gold and silver are no longer intrinsically valuable, but rather exhibit a fluctuating
value relative to the socially produced fiat currency. The change in the US Dollar from its historical basis as a currency “backed” by a precious commodity (such as gold or silver) to one without such a basis marks the change from exchange via the physical commodity-form to an immaterial exchange whose basis is purely social rather than physical (the fiat currency); this shift demonstrates an extension of immateriality into the political economy as a whole. (It is less a radical change than an incremental transition that emerged in the abandonment of the Bretton Woods agreements, and consequently in the role adopted by the US Dollar as the global reserve currency in the 1970s.)

While the underlying structural logic that precipitated the economic crisis of 2008 has its foundations in the same ideology of immateriality that is apparent in the aura of the digital’s denial of physical reality, the factors that produced this immateriality are evident in the internal structure of how this semiotic system drives its participants towards immaterial values. At the same time, those semiotic structures of financialization, exchange of titles to future production, and ideology of rupture between physical and immaterial values leads recursively to a debt cycle emergent in the large-scale bubbles of the “Housing Bubble” (2000s), the “Dot.Com Boom” (1990s), and the “Savings & Loan Collapse” (1980s) in the United States; similar bubbles have emerged internationally in Japan and Europe over the same period, revealing how the escalation of values apparent in the semiotic, immaterial production of digital capitalism is both internationally systemic, unsustainable, and unavoidable.

This new immaterial basis contributes to other shifts in production and labor. Semiotic manipulation replaces physical asset-basis reality (in the physical commodity form), and immaterial labor replaces physical production, revealing the process of reification that legitimates immateriality as a vehicle for wealth production: the reason the Federal Reserve and Troubled Asset Relief Program bailouts in the “Housing Bubble” of 2008 focused on the liquidity of the banks, and
were concerned with the flow of credit,⁶ lies with this market-
based semiosis generating wealth without expenditure via a
spontaneous creation of exchange value sans labor or con-
sumption of resources (it is transactional rather than produc-
tive). This fantasy is a fundamental condition of digital
capitalism. It is a system attempting to expand without limit,
inevitably encountering physical constraints imposed by the
scarcity of capital, which precipitates the recognition of a
collapsing “bubble,” thus, crisis.

An accelerating shift towards immaterialism—values cre-
ated without productive action—is apparent in the historical
rise of the digital in the United States: the issuing of a rentier
currency based on debt (on December 23, 1913 with the Fed-
eral Reserve Act, which created the Federal Reserve Note);
the shift from currency based in the universal equivalent
commodity, the “gold standard,” to a fiat currency (on Au-
gust 15, 1971); the transition to a financial economy focused
on immaterial labor (the trend of manufacturing to shift to
Asia during the 1980s, and the rise of globalization in the
1990s); and finally with the emergence of the aura of the digi-
tal (with the widespread adoption of digital communication
technology at the heart of the semiotic financialization that
enables these asset bubbles, a trend starting in the 1970s, ac-
celerating in the 1980s, and fully emergent in the 1990s with
the initial Dot.Com boom). In all cases, these transfor-
mations describe a fundamental social shift from concerns with
physical, tangible equivalency to an immateriality described
by the aura of the digital—the illusion of an infinite domain
capable of producing value without expenditure, coupled
with a denial of physical costs and limited resources—as it
merges with the systems of value production and exchange.

⁶ While this move followed the suggestion of Hyman Minsky for the
Federal Reserve to be the “lender of last resort,” it also did nothing
to address the underlying problem with the “Housing Bubble” of
ideas/articles/2009/09/13/why_capitalism_fails/.
The “Housing Bubble” of 2008, no less than the “Dot.Com Bubble” of 2001, and the collapse each triggered, demonstrate the pervasiveness of this ideology and the shift to semiosis in immaterial (financial) transactions in place of physical production. Digital capitalism can be identified with the simultaneous appearance of these interlocking social-economic conditions, each of which reinforces the ideology of immateriality apparent in the aura of the digital.

Immaterial currency and physical labor generate a disparity between the demands made by titles to future wealth reified in the fiat currency, and the ability of labor and production to meet those demands. Its fundamental basis favors imbalances and collapses following/producing financial bubbles; this rupture between physical labor and immaterial ‘production’ reveals a system that inherently cannot maintain equilibrium. Understanding this new condition requires a reconsideration of Karl Marx’s foundational definitions of commodities, the physical commodity-form, and the universal equivalent in relation to value and labor. The dynamic tension of this relationship manifests itself through the semiotic process of currency generation via the extension of credit: the creation of liens against future productivity encapsulated in the iteration and exchange of immaterial ‘commodities’ within the marketplace—what is termed “financialization.”

§9.1

In conventional Marxist theory the distinction between the physical commodity-form and the role of the universal equivalent commodity is not significant precisely because the universally equivalent commodity, currency, maintains a dual identity: as both agent of exchange in transactions, and as physical commodity-form in itself. The foundations for this conception are in Marx’s Capital, Volume 1, and his subsequent considerations of the commodity-form depend on the maintenance of this duality. The transition to immaterial production emerges from a breach of the duality between
currency and commodity-form: when the universal equivalent is no longer also a physical commodity-form, which is the case with fiat currency, the consideration of the dynamic of currency as independent from the commodity-form is essential. The two cannot be assumed to continue to move in tandem as different aspects of the same entity.

Nevertheless, the relationship between currency (money) and labor remains central to the dynamic of immaterial production and the escalating values of commodities. The development of rentier and fiat currencies are basic components of this process of wealth extraction via immaterial labor. The paradox of immaterial value and futurity in fiat currency can be recognized in the essential nature of fiat currency itself: first, that the currency is a reification of the pure social relation that is Marx’s definition of “currency,” in place of the dual social-commodity nature he identifies; and second, as a rentier form, it functions as a title to future labor, not as a representation of past labor. These differences make significant alterations to the definitions posed in Capital, Volume 1. Marx begins his analysis with the discussion of foundational concepts of labor, value, and commodity, speaking only briefly about a universal equivalent (currency) based in the exchange of physical commodities being simplified through the use of a single commodity-form to stand for exchange value:

The simple or isolated relative form of value of one commodity converts some other commodity into an isolated equivalent. The expanded form of relative value, that expression of the value of one commodity in terms of all other commodities, imprints those other commodities with the form of particular equivalents of different kinds. Finally, a particular kind of commodity acquires the form of universal equivalent, because all other commodities make it the material embodiment of their uniform and
The general form of relative value, inherent in all commodities, is Marx’s foundation for the symbolic value identified with money: it is the foundational principle of exchange that produces “money” through the universal equivalence between the value of the underlying physical commodity (gold) that is “money” and value of other commodities. The current situation where there is no physical asset providing a basis for exchange value is beyond the scope of his description; it is a key distinction between the paradigm he constructs and the contemporary political economy: an individual commodity, when employed as a general equivalent for other commodities, becomes the “universal equivalent.” Thus, a capitalism dependent upon fiat currency divorced from any connection to a physical universal asset (such as gold or silver) is beyond the scope of the historical foundations of Marx’s theorization; a reassessment of his foundational definitions is thus required to understand the parameters of this changed scenario. The separation of currency from physical asset is an essential enabler for contemporary immaterialism.

The concept of “fiat currency” plays an important role in the contemporary dynamic of digital capitalism. Unlike the formulation of currency in Marx, digital capitalism lacks direct physical connections to tangible commodity values. Whereas Marx’s concept of “exchange value” acts as a repository for value produced by past labor (i.e. the physical commodity-form is literally “in” the material basis of currency), in digital capitalism there is no “saving” of past labor value: separated from the physical basis of the universal commodity, exchange value does not have a foundation in productive labor since it is no longer simultaneously a signifier for relative value and a physical commodity in itself. The separation of currency from its historical basis in a tangible commodity necessarily generates a virtualized (digital) value separated

from any tangible basis in material reality. Separating the commodity aspect (gold/silver/etc.) from the exchange value of currency alters the basis of exchange itself.\(^8\) The exchange value of fiat currency demonstrates is not derived from the commodity nature of the money itself; in digital capitalism these relations between commodities—relative value—become a purely social relation that denies any basis in past labor: what it enables is a shift into rentier claims on future labor—as agent for putting production in motion. This shift is apparent in the systemic paralysis caused by the credit crisis in 2009.

The contrast between the virtualized currency of digital capitalism and traditional currency is stark: traditional currency was a physical commodity whose value within the economic system was clearly defined, whose symbolic value was directly connected to its commodity nature, and whose relative value to other commodities was limited by the physical production embodied in the physical, universal commodity-form itself. These traditional units of exchange were either directly formed from a universal commodity (i.e., gold coins), or stood in for it (i.e., were theoretically redeemable as this universal equivalent). Within digital capitalism such a transaction is no longer possible. The exchange value of traditional universal commodity-forms is now unstable, shifting precisely because the material commodities no longer function as universally exchangeable currency. That role is occupied by the immaterial value of fiat currency.

Freed from the limitations posed by a physical basis in commodities, the quantity of currency in circulation can increase exponentially, yet appear to retain its value since there is no physical commodity-form whose physical limit will constrain value. The potential collapse posed by the “Housing Bubble” in 2008 appears precisely when the relationship between the quantity of currency and its value in relation to other commodities (in this case, mortgage-backed debt, itself an immaterial claim on future production) comes into ques-

tion: thus the systemic danger posed by such collapses emerges as an inherent property of the currency itself.

§9.2.a

Marx described physical values two ways: (1) as objects of utility, what Marx terms *use value*, which is the material commodity itself, and (2) as depositories of past labor, or *value*, in which the *exchange value* is represented as money and retains its value because of the commodity basis:

Gold confronts the other commodities as money only because it previously confronted them as a commodity. Like all other commodities it also functioned as an equivalent, either as a single equivalent in isolated exchanges, or as a particular equivalent alongside other commodity-equivalents. Gradually it began to serve as a universal equivalent in narrower or wider fields. As soon as it had won a monopoly of this position in the expression of value for the world of commodities, it became the money commodity.

This dualism collapses when we consider the reified social values of digital capitalism. There is no commodity equivalent to the fiat currency, thus fiat currency undoes this preservation of values generated by past labor through/as currency. Fiat currency is neither an embodiment of productive action, nor a repository of already-generated-value precisely because it is not a commodity, and cannot be translated into a commodity. The underlying social basis for currency—the *acceptance* of a universal equivalent—becomes the *only* value reified in currency (money) as the exchange value of currency; this virtualization is symptomatic of a transformation of the system of exchange from one based on physical labor and productive economy to a virtual economy. This

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development is the precondition for finance to emerge as the immaterial production that characterizes digital capitalism.

Unlike physical commodities (such as corn and iron), which can always be exchanged in a direct, physical transaction (a quantity of corn exchanged for a quantity of iron), in fiat currency the value of commodities is no longer expressed through an exchange of value, but rather in a transactional debt: it becomes an exchange of titles to future production; to purchase gold or silver, for example, is to translate the value of fiat currency into a speculative asset whose value over time is unstable precisely because it is not “fixed” as representative of past production, but in relation to production to be performed. These claims against future labor substitute for the historical duality of social relation and tangible commodity. This transaction is rentier in nature: it suggests that the elementary form of commodity value is not expressed through relationships between commodities of any type, but rather through the ability to exchange the currency for labor to be performed, (also known as debt). Marx’s concept of “equivalent value between commodities” no longer applies since there is no commodity already produced by labor mediating this exchange of values.

Fiat currency functions to set labor in motion (i.e. as capital), not as a reserve where value is conserved; in the process of this shift, it renders commodities valueless precisely because they are no longer equivalent, except in terms of their expression via claims on future productivity—in an immaterial value not in immanent physicality. In this construct, futurity (future-labor-production) comes to replace the historical universally equivalent commodity (gold); futurity is transformed into the universal commodity, and the economy it produces depends upon the ability to receive and manipulate credits (i.e., financialization), rather than through the management and distribution of commodity production.

However, it is not a quantitative relation between physical commodity-forms (a quantity of commodity X exchanged for a quantity of commodity Y), that is directly visible in the proportion of exchange values between objects of one sort
and those of another sort—in digital capitalism the nature of exchange value becomes a variable social relation distinct from (and unrelated to) quantitative relations. The dynamic of exchange value qua fiat currency reifies a social foundation that Marx identifies as characteristic of all currency, changing the symbolic relationship that originated in the relative value of commodities into/as the fiat currency itself. This dematerialization of commodity values reflects a fundamental shift from material production to immaterial labor, and by extension, the automated labor of computer systems, and the rise of semiosis apparent in the transactional wealth generation of financialization.

§9.2.b

Because of the dual costs of physical production—once through the expenses of raw material, and then a second time through the transaction costs imposed by the rentier nature of fiat currency—digital capitalism privileges the generation of value via immaterial exchange where there is only the transaction cost of the fiat currency itself. Precisely because physical production is exchanged for claims on future production in the asymmetrical valuation of immaterial exchange demonstrates how labor has already been expended before it has been performed (i.e. is a debt to be paid). Given this transformation, the shift from a capitalism based on physical labor and production to digital capitalism based on semiosis (the exchange of titles to future production via financialization) is inevitable. It is forced onto actors within the system of digital capitalism by the demand to maximize wealth extraction—profit; it is the logic of the system itself that produces this change. The production of value within digital capitalism is thus necessarily and inherently extractive—a symbolic-order manipulation where physicality (to the extent that it still applies) is a mere pretext for the transactional exchanges that create increased value; “production” within this virtual realm is a matter of semiosis (the symbolic manipulation of financialization), rather than physical pro-
duction. Unlike Marx’s construct, where the value of a commodity remains constant so long as the labor time required for its production remains constant, in digital capitalism, commodity values necessarily escalate because of their indebtedness against future production via their valuation within the virtualized exchange reified in fiat currency. To repay the debts they pose, values must increase.

Being severed from the limitations of the physical commodity-form—where currency can only expand in proportion to the physical material it is exchangeable for—allows dramatic increases in currency-in-circulation. The result is a cycle where claims against future production expand until they encounter the limiting factor: the ability of labor to meet the titles levied against its future production; this constraint is the scarcity of capital. The scarcity of capital limits expansion precisely because the emergent imbalances between claims on future labor and the ability to meet those claims are traditionally resolved through price inflation/currency devaluation—the instability of exchange values inherent in fiat currency’s translation into commodity objects. However, digital capitalism poses a special situation for this traditional resolution to the asymmetry of value and labor, since digital capitalism develops from fiat currency replacing universal equivalent, and from the transition to the virtualized values of semiotic transactions characterized by financialization.

Fiat currency in digital capitalism does not enable the storage of past labor value. The system of exchange and circulation of currency (credit) that is the basis of these semiotic transactions cannot allow the fiat currency to be devalued without threatening the acceptance of the social relationship that enables the currency itself: digital capitalism is threatened with imminent collapse when the circulation of credit ceases. Thus, the focus on the financial institutions becomes inevitable in the bailouts and actions taken to contain the collapsing bubble: the physical basis (real estate in 2008) that precipitated the crisis is an epiphenomenon when considered

in relation to the semiotic transactions those physical assets enable.

§9.3

While digital capitalism may appear to be an affective form of capitalism, and to a certain extent it does deploy affective measures to achieve its ends, a more correct designation is agnotologic capitalism: a capitalism systemically based on the production and maintenance of ignorance.12 The accusations of fraud against banks such as Goldman Sachs for creating derivatives “designed to fail” and then claiming that these commodities are of the highest value demonstrates how this process of misinformation designed to obfuscate, confuse, and confound functions to create ignorance. This situation is partly a function of ideological blindness, and partly a reflection of the all-too-human desire to believe in positive scenarios such as the well-known, but hypothetical, “free lunch.” Coupled with an affective performance, the agnotological dimension can only produce a social dynamic of misinformation.

This agnotism affects all participants within digital capitalism, precisely because it is the enabling factor for the perpetuation of the cycle of bubbles and the escalation of values they create. The limited horizons produced within this social network of agents and immaterial assets constrains the range of potential solutions to those that reinforce the established dynamic; this is the Ponzi formulation in action—as with the caucus-race in Alice in Wonderland, there is no alternative but to run faster simply to remain in place. It is this perverse dynamic that generates the need for affective remedial services. Juan Martin Prada’s affective capitalism is thus a symptom of the disassociation between the reality of capitalist

12 This term follows the suggestion by Robert N. Proctor, who proposed agnotology to describe the systematic, false production of “science” designed by the tobacco industry to create confusion about the health risks of smoking tobacco.
Therefore, it seems to be almost evitable that the increasing computer automation of the productive and management processes in companies should only be able to generate the mere effects of closeness, affective simulations of service for the user, who will not cease to complain about the lack of contact with actual “flesh and blood” people when hiring services, solving doubts or presenting complaints.  

The affective labor created to address this alienation is part of the mechanisms where the agnotological order maintains its grip on the social: managing the emotional states of the consumers who also serve as the labor reserve is a necessary precondition to the management of the quality and range of information. The creation of systemic unknowns where any potential “fact” is always already countered by an alternative of apparently equal weight and value renders engagement with the conditions of reality—the very situations affective labor seeks to assuage—contentious and a source of confusion, reflected by the inability of participants in bubbles to be aware of the immanent collapse until after it has happened. The biopolitical paradigm of distraction, what Prada calls “life to enjoy,” can only be maintained if the underlying strictures remain hidden from view. If affective labor works to reduce alienation, agnotology works to eliminate the potential for dissent. This elision is essential.

Creating values through the production of immaterial values that are constructed around a fictitious basis in tangible assets (there are more derivative assets than can be matched to physical commodities) requires that the valorizing process apparent in the semiosis remain unacknowledged. The biopolitical paradigm of distraction serves this

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semiosis by keeping the social agents occupied in affective pursuits and fantasies of economic advancement (home ownership as “the American Dream” being the lure for the “Housing Bubble”). Without these tangential considerations distracting the human resource, the valorization process would be impeded as the concept of production is extended to all parts of the social domain, and subsequently deployed in the escalation of values inherent in the financialization process.

§9.4.a

The US Dollar (the “Federal Reserve Note,” issued by the Federal Reserve Bank, an independent federal agency guaranteed by the United States Treasury) occupies an unusual place in the realm of currency: simultaneously both a rentier currency and a fiat currency, it is also employed not only within the national political economy of the United States, but internationally between nation-states as the global reserve currency. The US Dollar performs the role not only of universal equivalent between commodities, but between alternative currencies as well; it embodies the relative value of all exchanges within the global political economy.

Where fiat currency is inherently based on liens against future productivity, when all currency is issued by an independent organization, (i.e., the Federal Reserve Bank in the United States), the debt-basis is hypertrophied: rentier currency comes into existence by being lent (i.e., having a rent imposed at the moment of its creation even when not a fiat currency), and like other types of fiat currency, it is a debt that fundamentally cannot be repaid because it requires an amount of repayment greater than the quantity of currency in circulation.\(^\text{14}\)

§9.4.b

That the Federal Reserve System in the United States resembles a Ponzi scheme has been noted by a variety of observers, including former Assistant Secretary of the U.S. Treasury Paul Craig Roberts, and former New York Governor Elliot Spitzer.\textsuperscript{15} Considering parallels between the Federal Reserve and the Ponzi scheme is therefore instructive: as these observers have suggested, the larger Federal Reserve system can be understood through the Ponzi scheme.

At their simplest level, Ponzi schemes are a microcosm of capitalist accumulation that remain in equilibrium only so long as (1) the number of investable claims against future profits remain constant, and (2) there are sources of income that do not require repayment (thus falling “outside” the system of exchange and circulation). Yet, collapse is potentially immanent even with these constraints—profits generated by “investments” are only sustainable so long as they are being drawn from sources outside the network of titles to future wealth (the investment system itself).

In the larger Federal Reserve System, increases in value for fiat currency apparent in price escalation are counterposed by the equalizing force of currency devaluation: there are no “profits” being produced, only a semiotic manipulation in the form currency circulation (promissory notes against future production). However, the ideology reified in the aura of the digital suggests the problem posed by inherent instability and potentially immanent collapse can be resolved via the shift from physical production to semiotic (immaterial) production, or financialization. It is an ideological position that takes capitalism’s requirement to extract infinite wealth from finite resources and reifies it as a productive teleology through/as the Ponzi nature of this formulation. The generation of asset “bubbles” is not only required by this

system, it is the demonstration of the system in action that these “bubbles” appear. Rather than an unusual circumstance, such developments are required by the nature of the currency system itself. When coupled with the immaterialist ideology of digital capitalism, the scale of these asset “bubbles” increases due to the lack of constraints on the expansion of fiat currency.

§9.4.c

Understanding the special circumstances created in digital capitalism where the fiat currency is simultaneously divorced from the universal equivalent commodity and generated as a debt requires a consideration of how the Ponzi scheme can function as a model for the development of this system. Capital scarcity is a constant feature of this arrangement as there is always a greater outstanding debt than there is currency to repay it; the Ponzi scheme demonstrates this accelerating process of circulation.

The Ponzi scheme is a special variety of investment fraud where the normal conditions of investment and rent paid on capital invested becomes an explicit formulation of “robbing Paul to pay Paul.” As in all capital investments, the earlier the investor, the greater their profit; however, even though a Ponzi scheme produces initial “profits,” all investors ultimately lose all of their “investment” because the structure itself does not allow their repayment—a portion of their “investment” has already been repaid to them as their “profits.” Thus, the Ponzi scheme has a continual need for expansion (“economic growth”) to maintain its equilibrium: there is no production of new values, only the recycling and expansion of claims against future production.

The rentier/fiat currency issued by the Federal Reserve Bank mirrors the Ponzi scheme’s repayment of investors using their own investment (generation of claims against future production): only it is the Federal Reserve bank that is in the position of investor in the scheme—the rentier currency issued by the bank (as with the commodities sold by the Ponzi
scheme) must be repaid to the bank with interest. The more rentier currency there is in circulation, the greater the debt to the bank; thus, the digital capitalist economy will inevitably produce a ‘crash’ when the limits of productive capacity (labor) cannot keep pace with the demands of virtualized value via rentier currency; this is the inherent scarcity of capital within digital capitalism itself.

Two conditions enable the Ponzi scheme to continue functioning: the recycling of “profits” as new investments (which the Federal Reserve does when it purchases Treasury bonds issued by the United States government, essentially buying its own debt\(^\text{16}\)); and through the introduction of new sources of investment via derivatives and the financial markets themselves.

The Ponzi structure makes itself visible through cycles of asset inflation—so called “bubbles” of which the “Housing Bubble” of 2008 is simply a highly visible example, followed by periods of deleveraging—in which the investments lose their value, thus the amount required to be repaid for them—that return the system to equilibrium. The contradiction between the futurity of currency and the reality of labor, called the “unwinding of debt,” are inherent features of how digital capitalism maintains equilibrium through/as a virtualization of values. In the process, it forces a continual process of valorization as the need to identify new, unfinancialized domains that do not require repayment steadily increases. The agnotistic dimension of digital capitalism is essential for it continues to function only so long as there are new investors (i.e. sources of value entering the system), thus maintaining equilibrium through/as the stream of “profit” payments. To meet the rentier/fiat currency’s claims on future labor, there have been a variety of effects imposed by the need for equilibrium: the addition of new sources of labor (women enter the labor force); the reduction in the value of labor itself

(“offshoring” and “globalization”); the expansion of capital formulation into previously unvalorized domains (securitization and other innovative forms of investment, and the invention of new “markets” for goods such as “children”); through automation, the immaterial production characteristic of the digital; and increased efficiency (or increased labor) without increased wage. The emergence of affective labor is both an example of this extension, and an enabler for the valorization process within the social.

However, the paradox of immaterial value and futurity makes the revaluation of the rentier/fiat currency inevitable because the expansion needed to continue making rentier payments continually increases directly in proportion to the already-existing commitments, and eventually confronts the limits imposed by physicality in the scarcity of capital. It is such a collision that created the “Housing Bubble” as mortgage holders could no longer (or were no longer willing to) meet the obligations posed by their debt. Considered in such terms the obvious solution to the problem posed lies with the debt; however, as the debts are systemic, the nature of digital capitalism itself makes addressing the causes of asset bubbles impossible.

§9.5

The distinction between the valuation of immaterial and physical capital determines the generation of ‘capital’ within digital capitalism. As the nature of exchange value is reified in the form of currency, the relations between currency and commodity have significance for the nature of capital; as fiat currency exists as a pure social value, and the aura of the digital masks a systemic myopia derived from the absolute incommunicability between virtuality and physicality: it reiterates the divide that is the scarcity of material production in physical real-world fabrication (the so-called productive economy) as the scarcity of capital in digital reproduction (emergent in the inability to contain the contradiction between immaterial value and futurity in fiat currency).
Within the rentier/fiat currency system is the action of the digital aura both as expansive procedure and as immaterial ‘production’ via the commodification of virtual “assets” without relationship to physical commodities; it makes the capitalist paradox of escalating value reveal the systemic paradox of rentier/fiat currency through the inability to meet the fiscal demands imposed through the twin forms of interest on investment (ground rent) and the need to produce profit on capital expenditures to provide social reproduction. The scarcity of capital within this construction becomes apparent via the inherent imbalance between the number of potential future claims (infinite) and the quantity of immanent labor (physical, automated and immaterial) available (finite). This contradiction manifests itself as a systemic failure in the system of exchange: what is called a “freeze on credit” precisely because the rentier/fiat currency’s expansion of value depends on generating greater numbers of debits against future production, (i.e. the extension of “credits”). As the claims on labor exceed the ability to meet those claims, rentier/fiat currency reveals itself as futurity, rendered visible by the cessation of exchange: no exchange is possible when all labor is already allocated. Only the (re)payment of existing debits over time or their wholesale forgiveness (via a “jubilee”) will enable credit to resume circulation.
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