**INTRODUCTION**

Ryan Cardeno and Michael Baybayan are employed fulltime in the digital economy. Objectively, the nature of their work is informational, cognitive, linguistic, and technological. Like software engineers and programmers at high-tech startups in Silicon Valley, Cardeno and Baybayan spend their workdays in offices where they have access to wireless broadband and high-performance computers. Yet, the similarities between the material conditions of their work and those of software engineers in Silicon Valley end here. Despite being employed by multibillion-dollar Internet companies based in the United States, Cardeno and Baybayan are compensated with a monthly salary ranging from $300 to $500. Moreover, both are Filipino citizens, subcontracted by outsourcing firms across the Philippines.

Everyday, Cardeno and Baybayan—alongside over 100,000 workers worldwide—moderate endless torrents of user-generated content uploaded to social media websites around

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3 Sykes, Cardeno’s former employer, has 6 offices in the Philippines: http://www.sykes.com/philippines/contact/. As of October 2014, Baybayan was employed by an outsourcing firm called *TaskUs* in their Bacoor office, thirteen miles southwest of Manila: http://www.taskus.com/contact/
the clock.4 Their labor is to sanitize the mainstream web; to purge our Facebook feeds and Google search results from material deemed gruesome, violent, and explicit. In a way, the service janitors provide in physical space, Cardeno and Baybayan perform in cyberspace: the labor of cleansing our digital culture. Online content moderators, like Cardeno and Baybayan, are parties to an invisible yet indispensable class of postindustrial workers colloquially known as “data janitors.” This growing workforce consists mostly of delocalized and subcontracted cultural workers who are also predominantly nonwhite, underpaid, and overworked. “Data janitors” compose a new class of waged labor largely employed in the menial and repetitive tasks of decoding, organizing, transcribing, digitizing, and censoring the continuous data streams that incessantly besiege the Internet.

The recent emergence of a digital proletariat is an undeniable corollary of fundamental transformations in the capitalist mode of production since the end of World War II. “Data janitors” are thus a result of late capital’s productive rearrangements influenced as much by the advent of networked technologies as by the postwar surge in finance capital, not to mention widespread political and social developments in Western democracies, including neoliberal juridical reforms in corporate taxation, financial regulation, and labor legislation.

Throughout the 1960s and 70s, scholars affiliated with the Italian Marxist traditions *Autonomia* and *Operaismo* were among the first to theorize and critique capital’s postindustrial turn from a Marxist perspective—a movement inaugurated, in large part, by the seminal works of Mario Tronti and Antonio Negri in the early 1960s.5 The socioeconomic transformations of

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4 Chen, “The Laborers Who Keep Dick Pics and Beheadings Out of Your Facebook Feed”
the 1960s and 70s heralded a new era for European capitalism and politics alike; but they also marked a decisive rupture in Italian Marxism. The prospect of a reinvigorated Marxist discourse, rooted in a critical reinterpretation of the *Grundrisse* and *Capital, Volume III*, signaled a cogent and concerted move away from the reigning orthodoxy of Gramscian dogmatism that had, until then, characterized the Italian left and informed much of the Communist Party line.⁶

More recently, during the 1990s and 2000s, scholarly works by thinkers associated with the autonomist and workerist traditions made their way to the United States.⁷ Not incidentally, the widespread dissemination of this literature in the American academy coincided with the acceleration of postindustrialism, the rise of finance capital, and the development of networked technologies, including the World Wide Web in 1992 and Web 2.0 in the early 2000s. The reception of postwar Italian Marxism in the United States inspired a second, “post-autonomist” wave of Marxist theories and critiques of contemporary capitalism.⁸ The post-autonomist turn, led largely by the joint work of Michael Hardt and Antonio Negri, proposed a politically optimistic view of postindustrial capitalism, rooted in its salient and uncompromising departure from industrial manufacturing. According to these authors, the interplay between technological innovation, developments in education, and financial deregulation led to the following postindustrial economic transformations: the emergence of immaterial labor characterized by affective, intellectual, and creative activity; the movement in labor organization away from the

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⁷ Many classics of postwar Italian Marxism were translated into English for the first time during the 1990s, particularly indicative of this was the 1996 publication of *Radical Thought in Italy: A Potential Politics*, a collected volume of many influential works in the autonomist and workerist traditions, edited by Michael Hardt and Paolo Virno.  
⁸ Throughout this paper I use “post-autonomist” (adj.) and “post-autonomist Marxism” (n.) schematically in reference to the particular Marxist thinkers I engage in the course of my argument, namely, Michael Hardt, Antonio Negri, Maurizio Lazzarato, Carlo Vercellone, and Paolo Virno.
capitalist sphere of production; the emergence of Marx’s “general intellect” as an autonomous online site for immaterial activity; the return of indirect and formal subsumption of labor; and, most importantly, the idea that the combination of these developments culminates in anti-capitalist action, a harbinger of total revolution—what Hardt and Negri have called “elementary communism.”

While post-autonomist theories accurately depict many, if not most, forms of skilled digital labor, their proponents can only conclude that postindustrial capitalism affords workers the grounds and tools for critical action by completely purging workers like Cardeno and Baybayan—the material conditions of their work, the products of their activity, and their own living labor—from Marxist discourse. In what follows I offer a critique of post-autonomist Marxism by re-inscribing the material conditions and political salience of unskilled and racialized digital work into critical discourse. Read as such, this paper is an initial attempt to sketch a counter-history of the informational epoch of production through a narrative that foregrounds the secret materialities of postindustrial capital hidden in the confines of what I call “the absent factory.”

Broadly, I argue that post-autonomist Marxist theories of capitalism do not, and cannot, sufficiently account for, or address, some of the most distressing political effects of capital’s ongoing subjugation of labor, most importantly its intersection with extant regimes of racialization as well as its direct and coercive subjugation of a precarious workforce. This shortcoming, I argue, cannot be easily dismissed as it reveals just how inadequate these theories are, not only as means to understand and explain postindustrial capitalism, but also—and more crucially—as theoretical frameworks for critiquing it. In other words, insofar as contemporary Marxist critics mischaracterize the postindustrial mode of production, the capital-labor relation,

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and their effects, they consequently miss the political object of their critiques. In a word, their prescribed remedy is ineffective precisely because it ensues from a misdiagnosis of the problem they seek to resolve.

I begin in Part 1 by identifying the key characteristics of the post-autonomist understanding of postindustrial capitalism. I argue that the shortcomings of these theories take shape in three distinct and incremental stages, where one misunderstanding segues into another, resulting in an untenable and totalizing theory of contemporary capitalism. In part 2 I provide a selective examination of digital production in Silicon Valley. Through a reinterpretation of labor politics at Google’s corporate headquarters, I argue that—contrary to traditional narratives concerning capitalism’s “new spirit”—the company sustains a racialized and authoritarian regime of labor control; deploys coercive mechanisms of real subsumption targeted at its nonwhite, unskilled workforce; and directly organizes and subjugates its means of production. Moreover, I suggest that Google engages in these labor practices in secret, by hiding its “data janitors” and “cultural microworkers,” as well as the work they perform, within a concealed, highly monitored, and virtually invisible postindustrial factory.10

In Part 3, I expand on what I find to be the central shortfall of post-autonomist Marxism, namely, its failure to provide a theory and critique of how—by recourse to what mechanisms and discourses—the shift from industrial to postindustrial capitalism is racially

10 Most scholars who critique post-autonomist Marxism have traditionally focused on their failure to account for how industrial manufacturing remains either as important or more important than postindustrial capitalism, as much with regards to economic and cultural production, as with social and political formations. Rather than attacking post-autonomists by grounding my critique on exogenous factors and spheres of production, I try to be as generous to their theories as possible by critiquing them in their own terms, that is, by studying the very sphere of production that is the subject of their analyses. For critiques of post-autonomist Marxism from the perspective of industrial/modern capitalism, see: Nick Dyer-Witheford, “Empire, Immaterial Labor, the New Combinations, and the Global Worker,” in Rethinking Marxism, 13:3/4 (Fall/Winter 2001), pp. 73-98; David Neilson, “Formal and Real Subordination and the Contemporary Proletariat: Re-coupling Marxist Class Theory and Labour-Process Analysis,” in Capital & Class 91 (2007), pp. 89-123; Paul Thompson, “Foundation and Empire: A Critique of Hardt and Negri,” in Capital & Class 86 (2005), pp. 73-98
organized. In failing to account for the racialized nature of postindustrial subsumption, these authors consequently excise the precarious, authoritarian, and racial material conditions of postindustrial production from Marxist critique. In virtue of such erasures, these authors propose that an “immaterial” commodity emerges alongside the post-autonomist fantasy of a “virtuosic” and “elevated” workforce—a collaborative multitude of creative producers, consumers, and political agents. In a final epic act of emancipation, or so they tell us, immaterial product and labor integrate; embodied in a renewed collective subjectivity, this multitude charges the political stage with unmitigated revolutionary zeal. Yet, as I hope to show, this “political stage,” this springboard for “elementary communism,” is firmly rooted in the sanitized (physical and digital) domains of whiteness, whose fiction—not only in cyberspace and Google’s factory, but also in the pages of Hardt and Negri’s texts—is sustained by the active erasure of capital’s absent and racialized materialities in theory and practice alike.

Ultimately, this paper is an attempt to re-incise the sublimated material condition of the postindustrial mode of production back into Marxist theory; to rethink Marxist critiques of contemporary capitalism by reassessing the postindustrial mode of production through its concealed—or rather deliberately erased—sources of value: the absent factory; racialized and coercive regimes of production and control; an underpaid and overworked class of “data janitors;” capital’s hidden mechanisms of real subsumption, physical subjugation, and direct organization of labor; and an endless stream of raw data that never reaches our screens. The material politics of raw data speaks in fact to the fruits of a menial, repetitive, manual, and alienated form of digital work, which Internet users seldom see, hear, think of, or discuss, yet whose utility is at once ubiquitous and invaluable—indispensable for creative, affective, artistic, and intellectual production today. In what follows, the labor of “data janitors” emerges
as an essential and overlooked specter of late capital’s digital cultures and subjectivities; a mute, invisible, and omnipresent form of labor, eminent in every Google search result, tacitly presumed in every unconscious scroll down social media feeds.

I. Marxist Theories of Postindustrial Capitalism

Through the course of the 2000s, Michael Hardt and Antonio Negri developed an extensive Marxist theory of postindustrial capitalism presented in countless articles, interviews, edited volumes, and three co-authored books, Empire (2000), Multitude (2004), and Commonwealth (2009).¹¹ In recent years, Hardt and Negri’s post-autonomist scholarship has become a classic of contemporary Marxist critique, its influence being felt as much in social and political theory as in cultural and literary criticism. Indeed, their now famous postulates of postindustrial capitalism remain instrumental to ongoing academic debates on the past, present, and future of Western Marxism.¹² Some of the most fundamental and influential aspects of Hardt and Negri’s theory ensue from their formulation of the present-day technological epoch of production, which they characterize with reference to the emergence of new biopolitical and affective forms of immaterial labor, capital’s (re)turn to formal mechanisms of labor subsumption, the advent of Marx’s “general intellect,” and, overall, the transformative potentials of this productive schema as an elementary iteration of communism.

In this section, I engage in a close reading of three central components of contemporary Marxist theories of postindustrial capitalism that, like Hardt and Negri’s, stem from postwar

¹¹ Hardt and Negri’s Labor of Dionysus was an important precursor to Empire trilogy that followed: Michael Hardt and Antonio Negri, Labor of Dionysus: A Critique of the State-Form (Minnesota, MN: University of Minnesota, 1994)
¹² Hardt and Negri’s reformulation of post-autonomist Marxism was particularly salient in recent attempts by “new left” thinkers to reconceive the idea of communism. See: Costas Douzinas and Slavoj Zizek (eds.), The Idea of Communism (New York, NY: Verso, 2010)
Italian Marxism. These three categories concern what post-autonomist Marxists generally understand by the *character of labor* (Hardt and Negri and Maurizio Lazzarato), *the capital-labor relation* (Carlo Vercellone), and the *transformative promises of postindustrial capitalism* (Paolo Virno). By paying particular attention to the interdependence between each of these points, I argue that post-autonomist Marxists arrive at implausible conclusions based on misguided interpretations of the postindustrial mode of production. Their sequential mischaracterizations begin with their untenable definition of labor, which segues into an insufficiently critical understanding of the capital-labor relation, and ultimately results in a generally misrepresentative political and economic theory of contemporary capitalism. In essence, these three points are essential to my argument, developed in following sections, since they convey how and why Marxist critics sustain their most important—and least convincing—claim that postindustrial capitalism affords workers the grounds, tools, and conditions for revolutionary political action.

**The Character of Postindustrial Labor**

Hardt and Negri’s formulation of immaterial labor in *Empire*, based largely on Hardt’s 1999-article “Affective Labor,” laid the theoretical groundwork for their succeeding theories of affective and biopolitical labor, as well as subsequent post-autonomist reworkings of Marx’s concept of the “general intellect.” For Hardt, the dematerialization of labor proceeds from the displacement of modern industrialism by capitalist postmodernization, a process he interchangeably defines as cognitive, postindustrial, and informational capitalism.¹³ In contrast to modern capitalism, the provision of services and manipulation of informational data lie at the

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heart of postmodern economic production: whereas modern capitalism industrialized production, postindustrial capital informationalized it.\(^{14}\)

As early as 1999, Hardt proclaimed the end of modern capitalism, foreshadowed by the demise of industrialism’s dominance over competing economic systems, political formations, and social relations.\(^{15}\) As industries are transformed by postmodern informatization, he argues, “the division between manufacturing and service [becomes] blurred,” such that the production process becomes fully informationalized.\(^{16}\) Under this new economic arrangement, services are characterized by “the continual exchange of information and knowledges.”\(^{17}\) From this, Hardt concludes that, “since the production of services results in no material and durable good, we might define the labor involved in this production as *immaterial labor*—that is, labor that produces an immaterial good, such as services, knowledge, or communication.”\(^{18}\) Consequently, postindustrial labor is reduced to a purely performative act resulting in no material product.\(^{19}\)

Hardt and Negri’s definition of postindustrial labor builds on Maurizio Lazzarato’s earlier notion of immaterial labor as “the labor that produces the informational and cultural content of the commodity.”\(^{20}\) By privileging the place of information and culture as the pivotal constituents of the immaterial commodity, Lazzarato consequently construes immaterial labor as dependent on high levels of cultural capital, education, technical training, and knowledge-based skills. Intuitively, Lazzarato’s immaterial workforce is largely employed in the cultural

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\(^{14}\) *Ibid.*, p. 90

\(^{15}\) *Ibid.*, p. 91

\(^{16}\) *Ibid.*, p. 92

\(^{17}\) *Ibid.*, p. 94

\(^{18}\) *Ibid.*, emphasis in original


\(^{20}\) Maurizio Lazzarato, “Immaterial Labor,” in *Radical Thought in Italy*, p. 133
sector: “advertising, fashion, marketing, television, cybernetics, and so forth.” As such, immaterial labor in Lazzarato denotes the productive activity of the “intellectual proletarian,” a worker who, despite being exploited as the proletariat, is nonetheless educated and skilled as an intellectual. From this, Lazzarato defines the skill set of immaterial labor in terms of “intellectual skills,” as regards the cultural and informational content of the commodity, and “entrepreneurial skills” with respect to the management of social relations. Manual skills, on the other hand, are inconsequential to postindustrial production, a contingent supplement to necessary immaterial skills such as creativity, technical knowledge, and intellectual ability.

Hardt and Negri broaden the conceptual scope of this definition by reformulating Lazzarato’s notion of cultural/informational labor as “affective labor,” which they define as the production and manipulation of affects, “such as a feeling of ease, well-being, satisfaction, excitement, or passion,” associated with a service-driven culture industry. In this way, Hardt and Negri argue that postindustrial production requires the immaterial labor of “the head and heart, including forms of service work, affective labor, and cognitive labor.” By stressing the affective reach of postindustrial labor, Hardt and Negri note that the immateriality of work does not refer to an abstract or disembodied workforce but to the dematerialized and virtual nature of its product.

What is central to Hardt and Negri’s characterization of postindustrial production is not merely that a novel and dynamic form of labor emerged from capitalism’s technological
transformations, but that immaterial production became “hegemonic over all the other valorization processes.” To be sure, however, Hardt and Negri’s claim regarding the hegemony of immaterial labor should not be understood to mean that industrial production has become an inconsequential political, social, economic, and cultural force, much less that it has been completely replaced or obliterated by informational capitalism. Rather, their emphasis on immaterial labor’s hegemony alludes to their view that this specific form of postindustrial labor denotes the predominant—not only the most politically salient and economically significant, but also the most widespread and important—type of productive activity within postindustrial capitalism. In other words, their formulation of immaterial labor embodies the overall character and essence of postindustrial production. Indeed, the notion that immaterial labor has become the hegemonic form of capitalist work is felt across a wide array of contemporary Marxist scholarship. Particularly indicative of this is the bourgeoning academic literature on “digital labor,” which specifically addresses the capitalist production cycle enabled by the Internet and networked digital technologies.

The Postindustrial Capital-Labor Relation: Formal Subsumption and the General Intellect

Building on Hardt and Negri’s theory of postindustrial production through a close reading of Marx’s Grundrisse and Capital Volume III, Carlo Vercellone offers a sophisticated interpretation of capital’s emergent mechanisms of labor subsumption. According to Vercellone, the central change effected by postindustrial capitalism is its transformation in the

28 Ibid., p. 25
capital-labor relation, that is, the means through which capital extracts surplus value from labor. For Vercellone, postindustrial capital subjugates labor through what Marx characterized as a formal, rather than real, process of subsumption. In Marx’s historical schema, formal subsumption precedes the industrial mode of production and the advent of modern capitalism in Europe. During feudalism, for instance, landlords were confronted by an already active and autonomously organized labor process such that “the co-operation of workers [did] not require mechanisms of capitalist direction of production.”

Because they found themselves at the margins of a labor process they sought to subsume, landlords were rentiers rather than owners of the means of production, meaning that they subsumed labor only after the production process had taken place. On this account, the surplus value extracted from labor—capital’s revenue—is best understood as rent rather than profit.

For Marx, the industrial revolution initiated the arrangement of production by capital, which in turn became characterized by capital’s direct organization and control of labor through techniques of concentrated manufacturing, mechanized production, and, later on, the Fordist assembly line. What Marx coined as capital’s “real subsumption” of labor is thus rooted in the historical and progressive separation of intellectual and manual labor, conceptual and material tasks, as well as polarization of knowledge and the parceling of labor, which in turn enacted technical and organizational transformations that facilitated capital’s total control of the labor process, the means of production, and its products.

32 Vercellone, “From Formal Subsumption to General Intellect,” p. 23
The transition from formal to real subsumption under industrial manufacturing desocialized the production process, consequently stripping labor from non-labor activity. Whereas before the industrial revolution work time and social time converged almost indiscriminately, industrial capitalism transformed time into the measurement of labor, such that productive and unproductive activity—labor and non-labor—became distinct according to the factory regime. As such, labor was defined as the productive activity organized and controlled by capital both temporally, within the working day, and spatially, through the physical confines of the factory. This industrial arrangement effectively rendered labor abstract, divested of all “intellectual and creative quality.” As Vercellone remarks, “The subsumption of the worker to capital becomes real when it is imposed inside the production process and no longer only outside it.” As a firm encloses its workforce within its physical property—the factory grounds, assembly line, machines, tools, and all other expressions of fixed capital—its subsumption of labor is no longer indirect, abstract, or formal, but direct, material, and real.

Vercellone’s key argument is that postindustrial capital proceeds from, and is therefore characterized by, the crisis of Fordism and real subsumption rooted in the progressive development of mass education, diffuse intellectuality, and the “general intellect,” which he claims are corollaries of the socialization of knowledge and the democratization of education. Our present condition of “diffuse intellectuality,” he continues, emerges from the development of mass education and technical training. Consequently, Vercellone has it, a new type of autonomous, “immaterial and polyvalent” labor springs into being displacing the parcelized

33 Ibid., p. 24
34 Ibid.
35 Ibid., p. 27
worker of Fordism. In contrast to the industrial production arrangement, where capital controlled society’s general knowledge by virtue of owning the means of production, post-autonomist Marxist generally agree that recent sociotechnological developments afforded by postindustrial capitalism have socialized the productive sphere by democratizing and expanding popular access to computers, knowledge, and the Internet.

In short, Vercellone credits postindustrial capitalism as the catalyst for two important productive transformations: the appearance of socialized knowledge as the central source of wealth creation, and the reconfiguration of social time as the temporal realm of productive activity. To the extent that postindustrial capitalism elides the distinction between the spheres of social reproduction and economic production, “the exploitation of the use-value of labour-power expands to the entire social day.”

Thus, as the site of economic activity is displaced, scattered across the social domain, labor is organized outside capital’s reach.

Given the allegedly autonomous organization and productive cooperation of labor power outside the capitalist sphere, capital is forced to dominate production and extract surplus value from labor through external and indirect mechanisms. Vercellone conceives this particular dynamic of postindustrial capitalism as a return to formal subsumption and rent, where a rentier class mobilizes specific mechanisms, such as intellectual property rights, in

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37 Ibid., “From Formal Subsumption to General Intellect,” p. 28
39 Vercellone, “From Formal Subsumption to General Intellect,” p. 34
40 Ibid., p. 20, p. 22. Vercellone’s analysis of subsumption develops from Hardt and Negri’s claim that, because “capital is increasingly external to the productive process,” the “exploitation of labor-power and the accumulation of surplus value should be understood in terms of not profit but capitalist rent,” for profit derives from capital’s “internal engagement in the production process,” whereas rent is an external mode of extraction: Hardt and Negri, Commonwealth, p. 141
order to “re-enclose, in a new phase of the primitive accumulation of capital, the social mechanisms at the base of the circulation of knowledge.”\(^{41}\) As formal subsumption comes to inform the capital-labor relation in postindustrial production, he argues it becomes “necessary to rethink the concepts of wage, productive labour and exploitation in a framework where [labor] cooperation is no longer confined within the factory but extended to the whole of society.”\(^{42}\) So, rather than deriving revenue from a profit-based model where the entire production process, from labor power to the means of production, is organized, supervised, controlled, and owned by capital, Vercellone suggests that firms now capture surplus value from labor only after the production process, such that their revenues are more accurately understood as rent. On this account, postindustrial capitalism is said to radically transform the role of capitalists: no longer do firms accumulate capital by directly creating and managing the productive process, but by enclosing the general intellect and expanding the market sphere by privatizing and appropriating the “common goods of knowledge and life” through juridical mechanisms.\(^{43}\)

“Post-Fordism is the Communism of Capital”: The Transformative Promises of Postindustrial Capitalism

For Paolo Virno, one of the more systematic defenders of the transformative potential of informational capital, the character of postindustrial labor marks the dissolution of the industrial division between capitalist work and political action, which in turn endows labor with a virtuosity capable of producing a political space of non-domination and liberation, a “non-

\(^{41}\) Vercellone, “From Formal Subsumption to General Intellect,” p. 33
\(^{42}\) Ibid., “Wages, Rent and Profit”
\(^{43}\) Ibid.
State public sphere.” Virno claims to invert Hannah Arendt’s proposition that political action has internalized a model of productive work by suggesting the opposite thesis: in the post-Fordist era, it is capitalist production that has absorbed the transformative prerogatives of political action. For Virno, the characteristics of postindustrial labor that capture elements of political action are the same postulates advanced by Hardt and Negri, namely, the communicative network of the workplace, the intellectual skills of labor, and the cultural, affective, intellectual, and linguistic-communicative content of production—all of which have become “the prototype of waged labor in general.” Virno adds to Hardt and Negri’s theory by supplementing their conception of postindustrial labor with an imperative for subjective social cooperation and a reformulation of the culture industry as the preliminary site for labor’s exodus from state and capital.

Moreover, Virno notes that, as labor moves to the side of the production process, it gives rise to social cooperation, mass intellectuality, and the re-creation of the public realm such that work becomes dependent on, and expressive of, the virtuosity of political action. It is in the sphere of the culture industry—whose “activity without an end product” becomes an end in itself—where the structure of wage labor overlaps with political action. Virno locates the political dimension of postindustrial labor in a distinction between the mechanical automation of industrial manufacturing and the linguistic-virtuosic character of services rendered by the living labor of post-Fordist cultural workers.

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44 Virno, “Virtuosity and Revolution: The Political Theory of Exodus,” in Radical Thought in Italy, p. 190
45 Ibid., pp. 190-191
46 Ibid., p. 191
47 Ibid., p. 193
49 Ibid., p. 58
In Virno, the general intellect appears as the foundation of a capacious and heterogeneous form of social cooperation based on an idea of labor as “virtuosic performance” rooted in shared communicative and cognitive attitudes independent from technical and hierarchical divisions of labor.\(^{50}\) The political character of postindustrial labor thus constitutes a “radically new form of democracy.”\(^{51}\) Whereas social cooperation under Fordism was “objective,” the labor of each individual worker being put into relation to the labor of others by a skilled engineer or factory foreman, the cooperation of postindustrial production is of a “subjective” order, where “individual work consists of developing, refining, and intensifying cooperation” as an end in itself.\(^{52}\) In this process, the monological feature of labor gives way to a condition of cooperation where the activity of any one worker is codependent on that of any other, such that subjective cooperation becomes the primary productive force of production and ultimately of anti-capitalist action.\(^{53}\)

Another important aspect of Virno’s theory lies in his integration of political action with the idea of the general intellect in order to articulate labor’s exodus—its mass defection—from the private sphere of capital and the public realm of the state. Virno’s political theory of exodus denotes labor’s flight from both state and capital in order to express the fullest extent of its radical virtuosity, its transformative political action, in a liberated and democratic commons, “the public sphere of Intellect.”\(^{54}\) Virno’s theory identifies a radical and liberating potential in the postindustrial interweaving of work, action, and intellect, whose defection from the state

\(^{50}\) Ibid., “Virtuosity and Revolution,” p. 191, p. 195  
\(^{51}\) Ibid., p. 197  
\(^{52}\) Ibid., A Grammar of the Multitude, pp. 62-63  
\(^{53}\) Ibid., p. 63  
\(^{54}\) Ibid., “Virtuosity and Revolution,” p. 197
gives rise to an autonomous “Republic” based on “engaged withdrawal,” “intemperance,” “disobedience,” and “nonservile virtuosity” as political tools of resistance.\(^5\)

Like Virno, Hardt also locates the transformative promises of postindustrial labor in the notion that its productive cycle of affect and value engenders “an autonomous circuit for the constitutions of subjectivity, alternative to the processes of capitalist valorization.”\(^5\) As “one of the highest value-producing forms of labor” and “the strongest link in the chain of capitalist postmodernization,” immaterial/affective production constitutes the “pinnacle of the hierarchy of laboring forms” under postindustrial capitalism.\(^5\) Immaterial and affective labor, he continues, “produce sociality, and ultimately produce society itself.”\(^5\) As industrial production is transformed by an informational economy, so too is “the quality of labor and the nature of the laboring process,” such that “information, communication, knowledge, and affect come to play a foundational role in the production process.”\(^5\) This same move is also supported by Lazzarato, for whom “new communications technologies increasingly require subjectivities that are rich in knowledge,” forewarning the materialization of “a new ‘mass intellectuality.’”\(^5\)

Thus, the transformative, communal potential of postindustrial labor lies in its capacity to produce affects and sociality outside the capitalist production cycle in the form of a socialized and collective subjectivity that connotes less an abstract liberal individual than society as a whole.\(^5\)

Overall, these critics seek to mobilize the affective facet of immaterial labor in order to provide a totalizing and promising notion of postindustrial production. In leaving the industrial

\(^{55}\) Ibid., pp. 197-200
\(^{57}\) Ibid., p. 90
\(^{58}\) Ibid., p. 89
\(^{59}\) Ibid., p. 93
\(^{60}\) Lazzarato, “Immaterial Labor,” p. 134
realm of manual work, labor attains an affective and biopolitical character, which in turn characterizes human relations in their free and autonomous essence, as produced outside the capitalist production cycle. Hardt and Negri emphasize this last point by noting that presently “productivity, wealth, and the creation of social surpluses take the form of cooperative interactivity through linguistic, communicational, and affective networks.”62 They conclude from this that, in the expression of its own creative energies, “immaterial labor thus seems to provide the potential for a kind of spontaneous and elementary communism.”63 Clearly, then, the stakes of postindustrial capitalism for post-autonomist Marxism are monumental: to the extent that late capitalism has radically reconfigured the character of labor, the cycle of production, and techniques of subsumption, it has in turn galvanized an interdependent and inter-constitutive autonomous sphere of sociality, intellect, affect, subjectivity, and production, one that, by orchestrating the synthesis of political activity and work, harbors the revolutionary and transformative promise to overcome labor subsumption through the obliteration of capital. This is an idea best conveyed by Virno’s maxim that “post-Fordism is the communism of capital.”64

II. The Absent Factory: Unveiling Hidden Regimes of Digital Production

Upon further examination, the division of labor in postindustrial capitalism is in fact far more nuanced than Marxist narratives account for. Whereas twentieth-century technological innovations in manufacturing afforded industrial capital unprecedented gains in relative surplus value by substituting human labor with machine automation, digital capital now employs a precarious and unskilled human workforce to perform labor previously done by automated

62 Hardt and Negri, Empire (Cambridge, MA: Harvard University, 2000), p. 294
63 Ibid.
64 Virno, A Grammar of the Multitude, p. 111, emphasis in original
systems. Increasingly, the tendency in the high-tech sector has been away from automation and towards “heteromation,” that is, the practice of delegating the menial tasks of mechanical systems back to human workers who, as a result, become indispensible mediators of computational technologies. Following from this shift in the postindustrial division of labor, a vast population of human workers that had been driven out of the capitalist workplace by industrial automation is drawn back into the computational fold by technical systems of heteromation. In contrast to the highly skilled labor pool of software engineers and programmers, heteromation employs “cheap labor from the so-called ‘precariat’—a pool of unemployed, underemployed, or unemployable workers” whose compensation falls “well below minimum wage levels.”

The human labor within systems of heteromation includes menial and repetitive work known as digital “microwork.” To the extent that ICT companies seek to expand the scope of culture under their command, they are inevitably confronted with new forms of language, image, sound, video, text, and sensory data that flood social media websites, computer hard drives, and mobile phones on a daily basis. In light of this monumental influx of cultural information, digital microworkers are hired to process, transcode, transcribe, format, moderate, parse, and classify raw and disorderly streams of information. These workers perform a labor that exceeds the technical and aesthetic sensibilities of algorithms that, unlike humans, “do not wield the cultural fluencies necessary to interpret this kind of [cultural] work.”

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68 Ibid.
perform the work of transcribing audio clips, transcoding video files for YouTube, organizing unstructured text into database fields through Amazon’s Mechanical Turk, scanning text for Google Books, rating search result pages for Google’s PageRank algorithm, and censuring graphic content from Facebook feeds and Google search results.\(^{69}\) In the tech industry, these microworkers are popularly known as “data janitors.” They are responsible for collecting, sanitizing, and organizing “unruly” content before it can be put to meaningful (affective, creative, subjective, linguistic, etc., etc.) ends by software developers, engineers, and the general public.\(^{70}\)

As such, techniques of heteromation include systems whose workers are not of necessity “users” of the digital services they provide. In other words, microworkers are “subjects who take action within a software system but have no interest in the outcomes produced by their actions within the system.”\(^{71}\) Unlike skilled knowledge workers, “data janitors” hardly have any intellectual, linguistic-communicative, or affective stakes in the informational and cultural content of their labor, from which they are explicitly alienated. It is precisely because their motives for work are exogenous to the “general intellect” that capital must \textit{directly} organize data microworkers as a waged labor force.

Moreover, at the same time capital reconfigures data microwork through technologies of heteromation, it organizes labor through the aid of large-scale networked data management systems of surveillance, control, and productivity known as Computing Business Systems (CBS). This management system has transformed the workplace of data workers into “the


\(^{71}\) Ekbia and Nardi, “Heteromation and its (dis)contents”
factory floor of the service economy.”72 These techniques of control mirror those employed in Fordist assembly lines wherein automated machines are deployed to steer employee workflows. In this case, algorithms operate to track the movement of workers (such as typing and scanning) through body-worn GPS technology; these technologies also monitor “fulfillment rates,” or success at sales, allowing employers to fire workers who do not meet sales targets.73 Moreover, Amazon Mechanical Turk employees, call center attendants, and electronic ticketing agents all work around a script set up by management. Together, these technologies of labor surveillance and control mean that workers have “little latitude to express judgment, creatively problem-solve, or leverage their built-up, on-the-job wisdom.”74

The Googleplex: From Knowledge Campus to Digital Factory

While it is certainly true that a large portion of digital workers are scattered across the globe, connected only virtually through the Internet, as many as 3.5 million people work on-site at ICT firms in Silicon Valley alone. Google, for instance, has a state-of-the-art physical infrastructure, most of which is located at the company’s corporate headquarters in Mountain View, California: a twenty-six-acre “campus” composed of 3.1 million square feet of office space known as the Googleplex. Google’s campus is the workplace of most company employees, more than that it is the physical embodiment of postindustrial capital’s allegedly “new” labor regime and so-called revitalized work ethic: an almost perfect elision of work and social life, of productive and affective activity.75

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72 Irani, “Justice for ‘Data Janitors’”
74 Irani, “Justice for ‘Data Janitors’”
While working at the Googleplex as a “user experience designer” from 2003 to 2007, Lilly Irani remarked that “another Googleplex” presented itself after hours, “at the edges of campus, in the marginalia of product talks, and beyond journalists’ and policy makers’ view.”

These secluded and covert workplaces, Irani notes, concealed scan workers, who “flipped pages in time to a rhythm-regulated soundtrack,” and content moderators who sanitized Google’s ad results by filtering explicit content. Despite working within the confines of the Googleplex, these workers were invisible to Google’s knowledge-based workforce: “they never showed up in the lavish, celebrated spaces where Googlers drank, ate, and brainstormed.”

This absence, Irani concludes, is far from incidental. Google’s productive, nonhierarchical, flexible, and playful workplace depends on “hidden layers of human data work: subcontractors who were off the books, out of sight, and safely away from both central campus and technological entrepreneurship’s gleaming promise of job creation.”

Google’s Absent Factory: *Workers Leaving the Googleplex*

In 2007, Andrew Norman Wilson, a video-artist hired part-time by Google made a startling discovery. Looking outside his office window, he noticed a group of workers leave a secluded building on the outskirts of the Googleplex. At exactly 2:15 PM every day, he watched the same workers leave the same building. Four years later, Norman Wilson presented the results of his discovery in a video exposé titled *Workers Leaving the Googleplex* (2011), where he reveals Google’s systematic and secretive concealment of its predominately nonwhite, unskilled workforce, whose invisibility is a product of its secret confinement in a

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76 Irani, “Justice for ‘Data Janitors’”
77 Ibid., Irani refers to these content moderators as “Indian workers I never met.” This highlights the racialization of unskilled digital labor among telemarketing agents and content moderators.
78 Ibid.
79 Ibid.
heavily monitored digital factory at the fringes of the Googleplex.\textsuperscript{80} The workers seen in Norman Wilson’s film leaving Google’s opaque factory building are subcontractors employed in the digital labor of data-entry for Google Analytics and text digitization, that is, “the labor of scanning books, page by page,” for Google Books.\textsuperscript{81} These workers, employed in ten-hour shifts from 4:00 AM to 2:00 PM, go by the team name “ScanOps” and are identifiable by unique yellow badges, which they are forced to wear by management.

According to Norman Wilson, a system of color-coordinated badges illustrates an internal hierarchy that determines, among other things, which class of employees has access to Google’s leisurely infrastructure.\textsuperscript{82} As a part-time contractor, Norman Wilson wore a red badge, while fulltime “Googlers” and interns wore white and green badges respectively. These three classes of workers enjoyed unrestricted access to the various services and amenities offered within the Googleplex. Indeed, Norman Wilson’s film depicts these privileged employees moving freely around campus, entering and exiting glass buildings, riding Google loaner bikes, boarding the Google limo to San Francisco, walking into one of Google’s gyms, and arriving at the Googleplex for “a free meal from one of the twenty gourmet cafés after a day of working at home.”\textsuperscript{83}

Yellow badge employees, on the other hand, are perfectly excluded from the leisurely privileges conceded to fulltime “Googlers,” red badge contractors, and interns—most of whom are highly educated and skilled workers employed in Google’s knowledge-based operations, such as software development, computer systems analysis, programming, coding, and research.

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\textsuperscript{81} \textit{Ibid.}
\textsuperscript{83} Norman Wilson, “Conversation with Laurel Ptak,” in \textit{Aperture} 210 (Spring 2013), p. 126
\end{flushright}
Yellow badge workers, Norman Wilson observes, “were not allowed [to] set foot anywhere else on campus, except for the building they worked in, […] they were purposefully kept separate.” Moreover, yellow badge employees were predominantly black and Latino. “They stood out on the Google campus,” Norman Wilson notes, “because of their race—many [being] people of color—and their attire, which was not that of the usual tech worker.” In light of their physical exclusion from Google’s infrastructural and social spaces marked by whiteness, yellow badge workers go about their work unnoticed, never seen or spoken of around campus.

Certain factors in Norman Wilson’s exposé illustrate the type of authoritarian regime used against yellow-badge workers: he was reported to management by a yellow-badge worker; he was detained by Google security; a security guard reprimanded a worker for talking to him; he was shunned by most workers he tried to interview; and he was ultimately fired for making this video. That Norman Wilson was both reported and ignored by yellow-badge workers alludes to workers’ fear of management; that he was detained and fired foregrounds Google’s regime of labor control centered on secrecy and surveillance, which is also evinced in the worker who was reprimanded by security.

Postindustrial Production in the Absent Factory

Norman Wilson defines the work of ScanOps employees as “a labor of digitizing informational materials that requires no cognitive involvement with the content of those materials.” The labor process, he continues, “is quite Fordist—press button, turn page,

84 Ibid.
86 Norman Wilson, “Conversation with Laurel Ptak,” p. 126
87 Norman Wilson, “Conversation with Lauren Ptak,” p. 129
repeat. In other words, rather than producing knowledge, yellow badge workers produce its technical means. Instead of interacting with the informational and cultural content of the services they provide—in a way that would be intellectually, affectively, or creatively rewarding—“data janitors” perform the work whose end, far from being the activity itself, is to enable knowledge workers and users to perform the types of creative and cognitive labor deemed affectively and intellectually rewarding. In arranging, organizing, and classifying data, microworkers “clear the ground,” so to speak, for software engineers and programmers to meaningfully engage with the cultural content of digital services and commodities.

By unveiling a Fordist factory regime suppressed by illusory narratives of Google’s utopian workspace, Norman Wilson’s exposé paints a picture of postindustrial capitalism highly reminiscent of its industrial progenitor. Indeed, far from symbolizing Virno’s political theory of exodus—a defection of labor from both state and capital—the movement of ScanOps workers away from the physical space of production only reaffirms capital’s direct hold on and real subsumption of labor. By depicting the uneventful and ordinary ritual of workers leaving work, Norman Wilson invariably captures their visible resentment of having to return the next day at 4:15 AM, a particular affect rife with a critical promise of subversive action that is in this case either completely depleted or coercively tamed by capital.

From the factory gates to the parking lot, workers move in a languishing stride, expressing a particular form of lived precarity, an exhaustion that foregrounds the all-too-familiar reality of real, direct, and coercive subsumption under industrial capitalism. Nowhere is political activity more distinct from work. The transformative promises of Virno’s fantasy of subjective social cooperation and collective subjectivity are at once negated and subverted. That is, collaboration and socialization are not so much discouraged as they are institutionally

88 Ibid.
reprimanded. In this light, the departure of yellow badge workers from the Googleplex is, as Norman Wilson intended to show us, not much different from the multitude of manufacturing workers leaving Lyon’s Lumière factory in Louis Lumière’s 1895 film *Workers Leaving the Lumière Factory*, or the distinct cohorts of industrial workers shown leaving workshops and factories in Harun Farocki’s 1995 video essay *Workers Leaving the Factory*. By drawing our attention to something new about Google’s labor regime, Norman Wilson has consequently reminded us of something we already knew about modern capitalism.

Above all, Norman Wilson takes viewers beyond the knowledge-based work of Google’s “campus” and into the company’s hidden factory. In light of both the digital microwork of “data janitors” and Norman Wilson’s revelations, we can begin to appreciate how post-autonomist theories misrepresent the postindustrial production cycle in fundamental ways. In short, five particularly pressing, and previously unexamined, characteristics of postindustrial labor emerge: first, it is as manual and menial as it is skilled and/or cognitive/linguistic; second, it is conspicuously lodged within the capitalist sphere of production, rather than being autonomous from it; third, it is directly controlled and organized by capital through a coercive factory regime; fourth, it takes place in a physical space that is planned, managed, and owned by capital; and fifth, it is alienated from the informational content of the services and commodities it produces. These observations, in turn, lead to two broader political conclusions: first, that postindustrial capital continues to subsume labor—as it did during industrial capitalism—through real rather than formal means; and second, these observations point to a politics of racialized regimes of digital production that at once organize and divide labor in postindustrial capitalism. All in all, Norman Wilson’s work helps to expose the post-autonomist insistence on the transformative promises of capital as something of a neoliberal fantasy.
III. The Politics of Racialized Labor in Postindustrial Capitalism

In his reading of Silicon Valley’s labor history, Curtis Marez notes that the emergence of neoliberalism in California’s Central Valley was enabled by a racialized political economy where “individual white market freedoms [were] defined in relationship to Mexican farm workers.” Marez aptly illustrates the ways in which digital labor in Silicon Valley, as was the case with farm labor in the agricultural economy that preceded it, is “overwhelmingly performed by racialized populations.” From the 1930s to the 1960s, Mexican immigrants served Santa Clara Valley’s agricultural industry as low-wage cannery workers and farming peons; today, the region’s ICT sector employs a predominantly nonwhite class of unskilled labor as hardware manufacturers, data microworkers, and custodians. In short, Marez’s history of Silicon Valley suggests that the emergence of digital culture and high-tech capital in the region has been, and continues to be, highly dependent on systems of racialized labor.

In 2013 Google made public its Employer Information Report (EEO-1), a form used by the U.S. Equal Employment Opportunity Commission to track labor force diversity in the United States. As expected, the report revealed the highly homogenous racial and ethnic makeup of Google’s workforce: 61% of whom were white, 2% black, and 1% Hispanic. Yet, what is most striking about Google’s release of information is not so much what it reports as

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89 Marez, “Cesar Chavez, the United Farm Workers, and the History of Star Wars,” p. 96
91 Marez, “Cesar Chavez, the United Farm Workers, and the History of Star Wars,” pp. 104-105
what it omits. By reporting only the diversity among managers, software engineers, programmers, technicians, and sales personnel, Google’s EEO-1 suggests that the company does not employ an unskilled workforce *at all*. As I argue above, however, Google does in fact employ a vast number of unskilled and underpaid digital workers whose labor, despite powering the tech industry, remains perfectly hidden from the press, policy makers, users, and other tech workers. As such, Google’s absent workforce foregrounds a racialized distribution in the sensible fabric of society, one that is operative within the data industry as a racial politics of exposure and concealment. Indeed, one of the repercussions of foregrounding the hegemony of intellectual, immaterial, and creative work in postindustrial capitalism, as post-autonomist Marxists continue to do, is that it further masks the existence of an unskilled digital working class, disavowing possibilities for critical understandings of the insidious yet furtive consortium between race and postindustrial capital.

Moreover, by failing to account for this invisible yet ubiquitous—and absolutely indispensable—type of digital work, Marxist critics become complicit in capital’s own project to conceal, understate, and above all sublimate its unskilled workforce, its digital Fordist factories, its coercive regime of production, and its racialized labor politics. In short, if the menial work of “data janitors” in Google’s secret factory is a reminder that postindustrial hierarchies of data microwork echo earlier industrial regimes of racialized labor, then the failure by contemporary Marxist theorists to account for the intersection between digital capitalism and race suggests that the conventional Marxist understanding of race as epiphenomenal to capital remains a persistent axiom in the tradition.

Christian Zolniski’s ethnographic work investigates how the intersection between labor flexibility and racial hierarchies, that is between capitalism and racism, impact unskilled

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*Irani, “Justice for ‘Data Janitors’”*
immigrant workers employed by ICT companies in Silicon Valley. Zlolniski notes that through the course of the 1980s, many of these companies restructured their operations, “moving toward greater decentralization and labor flexibility.”\textsuperscript{95} This meant that operations formerly performed in-house became subcontracted, giving rise to an informal economic sector made up mostly by Mexican immigrant unskilled workers, a considerable part being undocumented.

Silicon Valley’s new informal economy, characterized by poor working conditions, low wages, and employment instability, had a disproportionately negative effect on racial minorities, predominantly Mexican immigrants, who adapted to low incomes “by engaging in another type of informal economic activity—small-scale vending within their home neighborhoods.”\textsuperscript{96} Revenues accrued by immigrant workers through informal vending contributed to the reproduction of their labor power, that is, the recreation of a flexible, replaceable, unskilled, and inexpensive immigrant workforce, which in turn contributed to the accumulation of capital by Silicon Valley companies as employers of this very workforce.\textsuperscript{97}

This vicious cycle aptly illustrates late capital’s regenerative structure, wherein firms outsource the full cost of recreating the labor power they require by discounting wages and consequently increasing their profits. In other words, by lowering wages below subsistence levels, what Marx defines as the requisite wage compensation for the social reproduction of labor, ICT firms subsequently save on the costs necessary to reproduce the supply of labor they demand. This cost of labor recreation is then delegated to workers, who are forced to sell their labor outside the working day in order to subsist as productive workers. The result is a double victory for capital: firms rid themselves from the burden of recreating the workforce they employ while raising their profits in light of diminished labor costs.

\textsuperscript{95} Zlolniski, “The Informal Economy,” p. 2305
\textsuperscript{96} Ibid.,
\textsuperscript{97} Ibid., p. 2306, p. 2307
From Zlolniski’s ethnographic work, it is clear that racial hierarchies and racialized regimes of power in the United States are not only operative in, but also necessary for, late capital’s regenerative cycle in Silicon Valley’s restructured, informal economy. Zlolniski found that Mexican immigrants were employed in Silicon Valley’s informal economy at two levels: under subcontracting arrangements, in unskilled industries that support the material infrastructure of ICT companies, as well as in casual self-employment, such as “street vending, house cleaning, baby-sitting, day labor, and recycling.”98 As Zlolniski argues, the creation of a two-tiered informal economy that employs labor in both low-wage subcontracting jobs, such as the janitorial industry, and casual self-employment, as in the case of street vending, was a “major factor behind the rise of poverty among immigrant workers.”99 Settling in low-income, densely populated barrios approximately twenty miles away from Santa Clara and Cupertino, immigrant workers live “not only under poverty, but overcrowded housing, inadequate infrastructure, and high unemployment or underemployment rates.”100

Zlolniski’s work suggests that both the origin and sustained existence of Silicon Valley’s new economy lie in the political union between neoliberal capital and racial regimes of power regnant in the United States. In short, the restructuring of high-tech companies throughout the 1980s meant that, in order to reduce labor and overhead costs, firms chose to subcontract part of their operations to low-wage, independent contractors. As such, capital created a demand for inexpensive, flexible, and unskilled labor. Zlolniski pays particular attention to how the economic restructuring of high-tech firms in Silicon Valley affected the janitorial services employed by ICT companies. The janitorial industry, he argues, became “dependent on a large pool of cheap and easily replenishable Latino immigrants,” consequently

98 Ibid., p. 2308
99 Ibid.
100 Ibid., p. 2311
downgrading working conditions by transforming previously “stable, relatively well-paid, unskilled family-wage jobs [into] “unstable, low-paid, nonfamily-wage jobs that only immigrant workers were willing to accept.”\textsuperscript{101} Under the context of a racial juridical system that, in barring Mexican immigrants from political concessions afforded by citizenship, effectively devalues their productive and social lives, capital created a racially-marked demand for labor in Silicon Valley. This racialized, rather than raceless or racially neutral, demand for labor was in turn responsible for the ensuing influx of Mexican immigrant workers to the region.\textsuperscript{102}

Postindustrial Regimes of Racialized Labor Subsumption: Control, Coercion, and Exploitation

In stark contrast to Marxist interpretations that Google oppresses its workforce through tacit forms of intimidation instilled by a horizontal, self-governing corporate culture and a consent-based managerial regime, Zlolniski argues that Silicon Valley ICT companies employ minority and immigrant workers by using “authoritarian forms of managerial control.”\textsuperscript{103} These divergent interpretations of the postindustrial politics of production reflect Michael Burawoy’s distinction between “despotic” and “hegemonic” practices of labor control.\textsuperscript{104} Whereas despotic regimes control labor through coercion, notes Carolina Bank Muñoz, hegemonic tactics of control rely on consent and therefore obscure “the relations of exploitation and the extraction of surplus value by making workers complicit in their own exploitation.”\textsuperscript{105}

\begin{thebibliography}{99}
\bibitem{101} Ibid., p. 2314
\bibitem{102} Ibid., p. 2308, p. 2310. The prior wave of Mexican workers to immigrate to Santa Clara Valley from the 1930s to the 1960s were attracted by a demand for farm labor in the region’s agricultural economy, p. 2310
\bibitem{103} Zlolniski, “Labor Control and Resistance,” p. 43
\bibitem{104} Michael Burawoy, \textit{The Politics of Production: Factory Regimes Under Capitalism and Socialism} (London, UK: Verso, 1985)
\end{thebibliography}
While it is evident that ICT companies in Silicon Valley employ hegemonic regimes of labor control, Zlolniski’s ethnographic work evinces how these companies also engage in despotic control through coercion. Not incidentally, the concurrent implementation of both means of labor control by high-tech firms points to the veiled racialized structure beneath Silicon Valley’s politics of production. That is, the decision to implement one regime over the other is racially laden. On the one hand, ICT companies employ a hegemonic labor regime to manage the “digital labor aristocracy,” or “Google workers,” comprising of highly skilled programmers, analysts, developers, and software engineers, who are predominantly white, college-educated, male American citizens. On the other hand, however, these same companies deploy despotic and authoritarian measures as a means to control the unskilled “digital proletariat,” made up by an overwhelming majority of nonwhite (mostly Mexican and Latino) undocumented immigrants.

Labor flexibility, Zlolniski argues, is an “outcome of the power relations between management and labor in the workplace, the ultimate site where immigrants’ labor is deployed and transformed into profit.” Zlolniski probes the racialized structure and nature of unskilled labor as well as the precarious working conditions of immigrant janitors employed by Sonix, “one of the largest and most successful high-technology companies in Silicon Valley.” According to Zlolniski, the hiring of unskilled labor at Silicon Valley is explicitly discriminatory: racialized selection criteria are deliberately instituted to sustain an effective regime of despotic labor control. Sonix, for instance, prefers to hire Mexican immigrant

107 Zlolniski, “Labor Control and Resistance,” p. 39
custodians in light of the ease with which subcontractors are able to “mobilize immigrants’ social and cultural resources to recruit, organize, and control them.”¹⁰⁹ Sonix’s managers value Mexican janitors in light of their vulnerability to coercive control and overall flexibility—their “willingness to change their work routines without resistance and to work overtime with short notices.”¹¹⁰ Zlolniski reports that the harsh working conditions of Mexican custodians at Silicon Valley is exacerbated by “poor wages, lack of benefits, […] blatant racial discrimination, lack of respect, […] insults, threats, and verbal mistreatment by some supervisors,” which workers construe as a “direct assault on their personal dignity.”¹¹¹

Moreover, Zlolniski discusses how corporate and state bureaucracies conjoin to maintain a hierarchical racial regime of labor. To this end, Sonix management institutes flexibility through a bureaucratic and managerial system of control known as Total Quality Management (TQM) invested in raising productivity by “assigning workers new duties, promoting cooperation among coworkers, and requiring them to perform a variety of tasks following detailed instructions about how to do each job.”¹¹² The ideas of teamwork and friendly cooperation operate here as veneers for a despotic regime of labor control, under whose guise TQC seeks to hinder dissent, impede collective resistance, and ultimately extract more surplus value from fewer workers through monitoring technologies.¹¹³ The state, in turn, upholds and advances Sonix’s racialized regime of labor control by mobilizing its juridical apparatus. In 1995, the INS audited the company’s employee files resulting in 400 undocumented immigrant workers being laid off.¹¹⁴ This had the effect of intimidating other

¹⁰⁹ Ibid.
¹¹⁰ Ibid.
¹¹¹ Ibid., p. 43
¹¹² Ibid., p. 44
¹¹³ Ibid., pp. 44-45
¹¹⁴ Ibid., p. 45
undocumented workers, operating as a disincentive for them to join unions and engage in collective action.

Google’s Racialized Regime of Real Subsumption

The wage discrepancy in Silicon Valley is sustained by and reflective of a hierarchical division of labor. On the one hand, ICT officials, managers, and professionals employed in such skilled occupations as software development, systems analysis, computer programming, coding, and research, are predominantly white.\textsuperscript{115} On the other hand, workers employed in semi-skilled and unskilled labor, including maintenance, hardware manufacturing, and data-entry, are mostly nonwhite immigrants.\textsuperscript{116} As I discuss above, Zltniski’s analysis foregrounds the ideas and practices through which ICT companies in Silicon Valley have deployed a racialized regime of labor management that, in collaboration with the state’s rendition of unskilled Mexican immigrant workers as nonwhite subcitizens, devalues and exploits immigrant labor at two distinct levels. First, high-tech firms drive unskilled workers into a condition of impotency and helplessness characterized by precarious employment in a two distinct informal economies. Second, high-tech firms subjugate immigrant workers to a despotic regime of control grounded in explicit coercion.

Stemming from these contributions, Zltniski’s work operates as a corrective to two Marxist mischaracterizations of labor exploitation at companies like Google. One widely cited proponent of this view, Christian Fuchs, argues that labor in Silicon Valley is divided into two camps. On the one hand, he identifies an industrial production cycle invested in hardware


manufacturing and assemblage. Fuchs characterizes this sector in light of its predominantly nonwhite workforce and its “highly exploitative, low-paid, and dangerous” working conditions. On the other hand, Fuchs writes of digital labor’s information production sector. This industry, he has it, employs skilled workers who benefit from relatively high wages and a corporate culture built around incentives and privileges. In order to better understand how workers are exploited in this sector, Fuchs looks to Google as the quintessential employer of digital labor’s information producers, which, as Norman Wilson has shown, is a misguided characterization.

First, Fuchs’s argument that one of Google’s central modes of exploiting labor consists in using consent-based incentives in order to transform labor’s “life time into work time for Google.” As Zlolniski shows, however, this is not the case for racialized, unskilled labor. Rather than using incentives to extract free “overtime” surplus value from unskilled labor, high-tech firms cast their unskilled immigrant workforce into a structural condition of low wages and precarity wherein labor is forced to find further employment in order to supplement its low wages. While this results in overtime work and the collision of labor time into life time for workers, it yields firms higher profits from saving in production costs by lowering wages and outsourcing the costs of labor’s reproduction to the workers.

Second, Fuchs depicts Google’s management strategy for controlling and extracting free surplus value from labor as a “soft and social form of coercion.” While this is certainly not untrue, it only accurately represents the way Google controls its skilled workforce, that is, Fuchs’s labor aristocracy and Lazzarato’s intellectual proletariat. Meanwhile, as Zlolniski

\[117\] Fuchs, *Digital Labour*, p. 222
\[118\] Fuchs, *Digital Labour*, p. 232
\[119\] *Ibid.*, 228
argues, high-tech companies harness a racial system of labor control that directly coerces nonwhite, unskilled workers.

Together, the shortcomings of Fuchs’s work imply that his critique of Google’s exploitation of digital labor is limited to the predominantly white class of skilled workers, such as software engineers, and therefore inapplicable to unskilled immigrant labor. So, by failing to sufficiently address the ways in which the interplay between race and capital operate within the corporate structure of ICT firms, Fuchs’s analysis, like Lazzarato’s, emerges as an incomplete and restrained theory of digital labor exploitation at Silicon Valley. Under this light, the critical thrust in Fuchs’s counter-history of Silicon Valley wanes and, as a result of figuring the experience of whiteness as a universal ontological position, begins to dangerously, if not ironically, resonate with those more familiar, partial, illusive, and sanitized renditions of digital labor that he purports to oppose.

When considered under the light of Zloltinski’s ethnographies, Norman Wilson’s exposé confirms that racialized regimes of labor control and exploitation are also an eminent characteristic of postindustrial, digital labor. Whereas Google manages its predominantly white class of skilled labor through the ideology and infrastructure of its consent-based corporate culture, the company deploys an authoritarian apparatus of coercion as a means to control the chiefly nonwhite, unskilled class of yellow badge workers. Moreover, the fact that yellow badge workers are entirely excluded from the company’s culture foregrounds the existence of a parallel, racialized corporate philosophy aimed at the company’s “data janitors.” This is the culture that we see through Norman Wilson’s exposé, a regime of labor control that runs on intimidation, segregation, surveillance, and coercion, a politics of production that in turn produces fear and efficiency within a highly docile and parcelized workforce.
The immanent shortfall in post-autonomist Marxist theories of postindustrial capitalism stems from the tendency by critics in this tradition to render the effects of postindustrial, post-Fordist capitalism as totalizing, hegemonic, and indiscriminate, as though they were applicable to the postindustrial working class as a whole. This consequently leaves little room for nuance in their analyses, not only in regards to the composition of labor—its skill-level and the nature of its work—but also in what speaks to the regimes of power to which they are subjected.

The emancipatory political efficacy of postindustrial work, according to the Marxist critics under question, stems from the “creative and communicative faculties of a multitude of immaterial labor,” a form of collective intelligence that, with regards to labor performed on the Internet, “manifests itself in the Web 2.0 model of social networking.”\(^{120}\) This idea effectively obscures salient divisions of digital labor between the creative and affective practices of producing and interpreting the cultural meaning and content of data on the one hand, and the repetitive and menial operational tasks of parsing, organizing, digitizing, and decoding information on the other.

The work performed by “data janitors” and microworkers in the digital factory—as well as the authoritarian regimes of control to which they are subjected—falsify attempts by post-autonomist Marxists to undermine the political and economic salience of industrial factory work by rendering it ubiquitous. Consider, for instance, Vercellone’s suggestion that, as production is organized more and more autonomously from capital, labor is “no longer confined within the factory but extended to the whole of society.”\(^{121}\) The socialization of factory work, then, renders subsumption itself ubiquitous, such that capital exploits labor by

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\(^{120}\) Kologlugil, “Digitizing Karl Marx,” p. 130
\(^{121}\) Vercellone, “Wages, Rent and Profit”
collapsing work time into social time. In this arrangement, a worker’s social existence, her non-capitalist productive activity, is inalienable from her relation to the capitalist means of production, which are dispersed across life as such in the illusive yet omnipresent “social factory.” Yet, the idea of an omnipresent social factory as a metaphor for capital’s biopolitical and affective hold on human production, coupled with the crisis of industrial capitalism and the fatal demise of Fordist labor regimes, obscure the digital factory’s real and material presence within the postindustrial production cycle. Indeed, the erasure of the material factory marks the ideological excision of the political and economic effects of capital’s subjugation of labor through coercive practices of control and exploitation; it forewarns the sublimation of a political process unfolding within the confines of the factory floor—capital’s physical enclosure of the “general intellect.”

While Vercellone claims that the advent of a digital, networked economy marks the defining “crisis of industrial capitalism,” the labor dynamics in the digital factory suggest that industrial arrangements of production have not been replaced by, but rather absorbed into, the digital economy. To think of digital labor as completely autonomous from the capitalist production cycle is to reduce capital to a passive and exogenous agent in the organization, control, and exploitation of labor. To locate capital’s extraction of surplus value outside the production cycle is to paint subsumption as a juridical and technological transaction, something akin to an indirect technicality.

If capital intervenes in the production process only after productive arrangements—such as control, optimization, and organization—have been autonomously imposed on labor by

labor itself, then, capital’s role as a productive agent is dramatically curtailed. If this were the case, then labor would effectively find itself at the threshold of liberation. However, in the same way that both the character of labor and the capital-labor relation must be re-assessed in light of the working conditions of “data janitors” and microworkers, so too must arguments purporting the allegedly transformative political promises of postindustrial capitalism be resisted.

Indeed, with the advent of cultural microwork and heteromation as the driving aspects of postindustrial cultural production, Virno’s characterization of postindustrial labor as virtuosic performance, an alliance between political action and work, becomes deeply implausible. As a result of heteromation, microworkers occupy the role of “functionaries in ‘an algorithmic system,’” forcing the labor relation even further along the path of ruthless objectification than Ford or Taylor could have imagined. Indeed, forgoing Marxist theories of postindustrial capitalism appear particularly misguided when the hegemonic quality of postindustrial production, that is, the character of labor that has—for better or worse—enabled thousands of displaced workers to find employment in the digital economy, is also responsible for the overt elision of subjective social cooperation and unrepresentative of the linguistic-communicative or intellectual facets of work that, according to Marxist social theorists, are the driving forces behind postindustrial capitalism’s critical politics of exodus, communism, and revolution.

In light of Google’s secret factory, Virno’s emphasis on the alleged visibility and commonality of productive spaces in postindustrial capitalism appears particularly distressing. “Immediate visibility,” he argues, “is being gained by the ‘common places,’” or by generic

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124 Ekbia and Nardi, “Heteromation and its (dis)contents”
logical-linguistic forms which establish the pattern for all forms of discourse.”\footnote{Virno, \textit{A Grammar of the Multitude}, p. 36} On Virno’s account, the general intellect reveals itself in a space that is at once common and conspicuous: “The ‘common places’ are no longer an unnoticed background, they are no longer concealed by the springing of ‘special places.’”\footnote{Ibid., p. 37} It is easy to imagine how a ScanOps worker would find herself at a loss in trying to identify the political stage for the virtuous action depicted in Virno’s almost fantastic epic of postindustrial capitalism. No only are the spaces of digital production not visible and communal (but hidden and segregated); they are also not sites for transformative political action, at least not as long as the digital factory and its workers remain secrets.

As I have argued, postindustrial capital brings both labor and the general intellect under its material domain by directly organizing the production process, subjecting labor to a despotic regime of control, and discriminating its workforce according to skill, knowledge, cultural capital, and race. The intersection of race and capital under the postindustrial schema emerges as one of the most corrosive political corollaries of the divisions of labor engendered by the digital factory and data microwork. In essence, Marxist theories of contemporary capitalism do not so much deny as they actively elide the racialized reality of postindustrial production. In its place, authors rewrite an allegedly critical narrative for late capitalism that reconfigures whiteness as the base ontological condition of digital labor; this Marxist reading of present-day capitalism is rooted as much in the material realities of racialized social, political, and economic structures of postindustrial society as in the immaterial yet “unbearable whiteness of cyberspace.”\footnote{Kali Tal, “The Unbearable Whiteness of Being: African American Critical Theory and Cyberculture,” quoted in Gajjala, “Digital Media, Race, Gender, Affect, and Labor,” p. 219}