Notes

generations shaped workplaces, subjectivities, and cultures; it would be difficult to riot, organize, or occupy without using networks. At the same time, cybernetics, perhaps to a degree greater than any other technological system, is imprinted with capital’s priorities of speed, tracking, and the perpetual renewal of abstract value. Digital media circulate news quicker than solidarities can form; enable abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, precarity, exchange and exploitation by an abstract value. Digital media are unbridgeable with new coordinative mechanisms—coordinated precarization, prev...
This micropublication documents and extends the *Surplus*: Labour and the Digital symposium that took place on October 20, 2015, at the University of Toronto. This event was catalyzed by the release of the book *Cyber-Proletariat: Global Labour in the Digital Vortex* by Nick Dyer-Witheford, an activist-scholar with whom we have collaborated on various autonomous education projects over the past decade. Both the autonomist tradition that Dyer-Witheford writes from and the analyses of contemporary class composition he has articulated have been important sources in our pedagogical experiments in critical knowledge production. This small book’s title, *Surplus*, signals three valences of “surplus” in cybernetic global capitalism: surplus value, surplus population, surplus potential. At the symposium Dyer-Witheford delivered a lecture, reproduced here in edited form, in which he recasts *Cyber-Proletariat’s* argument through this three-part lens.

Alongside Dyer-Witheford’s talk, the symposium featured presentations by ten invited researchers. We asked each speaker to introduce one concept that addresses the contested intersection of labour and the digital, broadly construed. And we asked everyone to do so in a spare, three-minute flash talk. This enabled the inclusion of a larger number of voices and perspectives in a short two-hour symposium. We selected the flash-talk format, moreover, because it performs a tension between the speed-up of labour and the compression of communication under digital capitalism on the one hand, and the urgency of the need for tools to navigate and strategies to confront exploitation on the other. The flash talk is, then, ambivalent; it is, after all, a communicative form that emerged from the computing culture coextensive with the network infrastructure underpinning accumulation in the digital age.

Our subtitle, *Labour and the Digital*, departs from the terminology familiar in current academic debates on “digital labour.” Rather than invoke a discrete group of workers or a bounded set of occupations, the symposium positioned the digital as a milieu in which labour in general is increasingly performed, controlled, and transformed. Entries in this trim glossary of concepts—*reputation, logistics, hustle, depro- priation, wage, cyber-proletariat, acceleration, jugaad*,
However, the route to this fully cybernetic destination is circuitous and turbulent. It generates surplus potentials and unexpected eruptions, both negative and positive. The financial crisis of 2008 was a direct result of capital’s cybernetic restructuring, produced not by global working-class strength but by global working-class weakness. Creating a cybernetic, low-wage, supply-chain-organized, and increasingly automated global economy results in insufficient global consumption, prompting capital to flee productive investment into speculation (including sub-prime mortgages), and leading to massive crashes, flat-lining job markets, and of particular importance in the Global North, the re-proletarianization of a mass of young people aspiring to intermediate-strata professional positions, abruptly cast into unemployment and social positions, abruptly intermediary-status processes.

Paradoxically, this crisis provoked the first major political recomposition of a global proletariat in the cascade of struggles of 2009–13, from Tunisia to Istanbul, from Foxconn to Wall Street. Strikes, work stoppages, and workplace seizures were all parts of the new cycle, especially in China. Struggles at the point of production, especially in China, were riots in streets and on Foxconn to Wall Street. Strikes, work stoppages, and workplace seizures were all parts of the new cycle, especially in China. Struggles at the point of production, especially in China, were riots in streets and on Foxconn to Wall Street.
in/visibility, intersectional solidarity, connective action—variously expose the hidden labour of social media platforms, identify emergent methods for extracting value online and their implications for livelihoods, illuminate the materiality of global flows, expand what counts as “digital,” assess the consequences of digitization for social movements, and propose strategies and sites for collective intervention within, against, and beyond the circuits of accumulation.

Also featured in this book is an image series, Woodcut Surplus, by Public Studio, who was invited to produce work in response to the concept texts included here. Their contribution takes as its subject video games, which exemplify ongoing reconfigurations of labour in the digital era. Containing traces of the concept entries, the images in the series are prints from woodcuts, a self-consciously labour-time intensive process, which, in this case, involves the translation of an image from digital screen to wood board to printed matter, which is then in turn scanned, digitized, and printed—a cycling through or passage between media forms that also defies any hard and fast distinction between material and immaterial labour within the domain of artistic production, or otherwise.

In addition to Public Studio’s Woodcut Surplus, the book features a diagram and text, “(Re)presenting Surplus,” by this publication’s graphic designer, Chris Lee. A counter-speculation, Lee’s diagram visualizes his proposal for translating surplus value to an alternative currency that would circulate in parallel to official currency. He imagines an alternative currency regime within which a reconfigured postal banking system calculates and reroutes surplus generated by labour via a new currency—emitted in forms ranging from public spending to basic income—designed to simultaneously redistribute wealth and weaken incentive to profit-seeking.
billion mobile phones—a cyber-proletariat.

I use the term proletariat, rather than working class, to acknowledge that today a large proportion of the working class lacks a regular job.

Not all of the planet’s three billion workers are paid. Only slightly over half, 1.6 billion, receive a wage or salary; the other 1.5 billion are engaged in subsistence activities, still within or on the fringes of decomposing agrarian economies, either as paid workers or independent farmers. As a result, the working class is thus forced to find unwaged automation and commodities from production by cybernetic automation, or has been forced to find ever more precariously paid work, but also that which has been picked off the land by capital’s vortex and whirled around in the core as waged work, or else that which has not only the human material but also the social “non-existence” surplus value of unemployment and social “non-existence” surplus value of unemployment.

Today’s intellectual courtiers of Sergey Brin, Larry Page, and other information overseers, or “leaders” of the intellectual core, refuse to consider this and refuse to consider the “proletariat,” Marx’s occasional prediction about “an end—barring scenarios, dreams, and utopian scenarios—of a job, of a paid job.”

For the working class is thus forced to find unwaged automation and commodities from production by cybernetic automation, or has been forced to find ever more precariously paid work, but also that which has been picked off the land by capital’s vortex and whirled around in the core as waged work, or else that which has not only the human material but also the social “non-existence” surplus value of unemployment.

The “proletariat” thus includes not only the human material that has been picked up by capital’s vortex and whirled around in the core as waged work, but also that which has been picked up by that mass of human material which has been plucked off the land by mechanization, without necessarily being able to find employment, or has been ejected from production by cybernetic automation and communication, forced to find unwaged automation and commodities from production by cybernetic automation, or has been forced to find ever more precariously paid work, but also that which has been picked off the land by capital’s vortex and whirled around in the core as waged work, or else that which has not only the human material but also the social “non-existence” surplus value of unemployment.

The cybernetic vortex envelops the globe in networked supply chains, making labour available to capital on a planetary scale. At the same time, it develops adept automata and artificial intelligence that renders such labour redundant. The cybernetic vortex on the one hand, while also arrogating increasing amounts of global wealth into an almost entirely inhuman material—wealth that is used to develop and accelerate automation and artificial intelligence that develops adept automata and artificial intelligence that is developing at an ever greater rate, as well. At the same time, supply chains, making labour redundant such labour redundancy. The cybernetic vortex on the one hand, while also arrogating increasing amounts of global wealth into an almost entirely inhuman material—wealth that is used to develop and accelerate automation and artificial intelligence that develops adept automata and artificial intelligence that is developing at an ever greater rate, as well.
eter communications and seven
10 to 100, by over two billion in-
15 ferred communications and seven
20 billion of direct, mobile, and
digital, Internet-connected phones.
25 Net neutrality services, especially
30 Internet access, have been
35 expanded from 1.2 billion
40 people to 3 billion people.
45 But the number of people who
50 use the Internet is...
In January 2013, Canadian blogger Zach Bussey began a year-long effort to live an entirely sponsored life. He cleared the furniture and belongings out of his apartment and began living off the perks he could generate through his social media influence alone. He offered promotional benefits, like blog posts, Twitter mentions, and YouTube videos, to companies who would provide him with goods or services. While people have used their bodies to promote products and services before, Bussey appears to be the first person to offer their entire life as a platform for marketers.

Bussey represents a new kind of worker subjectivity that has emerged from the data-stream: the “social media influencer” or smi. The smi works to generate “reputational” capital by crafting a “personal brand” via social networks and cultivating as much attention as possible. Companies subsequently use the smi as a way to increase their “authentic” connections with consumers.

The figure of the smi is emblematic of the so-called “reputation” economy. In the context of an exhausted neoliberal political-economic system marked by perpetual crisis and austerity, where traditional jobs are disappearing and there is growing employment precarity, achieving a reputation for having a reputation has come to seem as reasonable a life goal as any other for many people. On websites such as Facebook, Twitter, and YouTube, individuals can craft a public presentation of self, or self-brand, monetizing themselves by working to develop legions of followers or subscribers—no need for television networks or other cultural intermediaries.

Advocates argue that social media have initiated a wholesale change in capitalism, one predicated on social participation and expressive freedom,\(^1\) where access to fame is democratized, and the reputation generated by social media participation functions as a new form of currency, and more generally of value.\(^2\) “Reputation” is, however, a contingent and unstable personal attribute generated entirely by the perception, attention, and approval of others.\(^3\) What comes to constitute a reputation is shaped by the cultural and economic institutions that have the power to authorize and direct attention, and then transmute that attention into value: “reputation” is a cultural product, fully conditioned by its mode of production.
and financialization, the development of instruments such as derivatives and futures initially to defensively hedge for foreign investments, which then morphed into high-risk speculative activities dependent on computer modeling, and high-speed trading. This trifecta of automation, relocation, and financialization constitutes the digital vortex.

This digitized vortex greatly intensified the extraction of surplus value. Of course, Silicon Valley’s top tech magnates regularly occupy lists of the richest people on the planet. But this accumulation of high-tech fortunes is not the only or even most significant role played by cybernetics in the rise of the 1%. Since the 1970s on, as cybernetics has been rapidly adopted, capital’s share of GDP relative to labor has steadily increased around the world, in “rich” and “poor” nations alike. Explanations for this trend offered by mainstream agencies vary, but they implicitly or explicitly emphasize the role played by cybernetics.

The International Labor Organization ascribes the fall in labor’s share primarily to the expanding financial sector, now dependent on algorithms, computerized risk modeling, and high-speed network trading. The Organization for Economic Co-operation and Development, in contrast, attributes it to “capital deepening” information and communication technologies, allowing businesses to capture productivity increases and replace workers by machines.

Whatever is most correct, the message is the same: cybernetics sucks value from labor and transfers it to capital.

The surplus populations
sector involving wage labor growth of a diffuse service economy at the expense of manufacturing work from China-enabled transfer of science and technology, the supply of new, cheap labor, the displacement of peasant cultures, the course of globalization, and the fundamental disorganization of agrarian populations from the world-historical exodus of the Global South is disintegrated to a new global class of the Global North at the expense of stereotypical “working class” labor. In this whirlwind, the composition of surplus populations of the vortex is not the human surplus populations especially in routine jobs, but replace workers by machines, and productivity increases and economic co-operation and development, in contrast, and high-speed network trad-

11

Nick Dyer-Witheford Cyberspace and the Digital

Surplus³: Labour and the Digital Economy
Ten years after the introduction of Facebook, the platforms through which we express ourselves are almost entirely governed and delimited by market interests. The generation of “reputation” has become privatized: businesses offer to identify potential smis, and manage, measure, and optimize corporate and individual reputations for a fee; companies like Klout and PeerIndex claim to provide an “objective” measure of users’ social media reputation in the form of a numeric score. However, the methods by which reputations are measured or optimized are black-boxed and proprietary, and some of these companies generate their profits by offering perks to their users for attaining higher scores and becoming more “influential,” thus pushing users into new markets for consumer goods.

The “reputation” generated by these businesses, then, is not an innocent reflection of a user’s actual influence; instead, it is a careful construction with an entirely instrumental purpose, that of selling users to advertisers predicated on those users’ perceived ability to influence others. Here, the offer of a “reputation” is simply a form of target marketing, which works, in turn, to identify opportunities to create value for the social scoring business and its corporate clients. Their message to users—“always be communicating!”—also provides more grist for the mills of the big data miners.

What is produced in the form of a “reputation” inevitably exceeds the control of those individuals who generate it; typically, we are “subjected to” a reputation. And, as Bussey discovered after a year of eating crackers, instead of acquiring social mobility and wealth, the smi exists on an empty promise intended to elicit an endless cycle of “hope labour.” So, while it may be that the mechanisms for attaining high visibility and a lucrative reputation are widely accessible under contemporary techno-capitalism, they have completely failed to bring about any real material improvement in people’s lives, managing only to exacerbate class inequality.

Notes
The machinic intensification proceeds in bursts and abrupt condensations: the latest of these injections was the cybernetic revolution, precipitated both by World War II and Cold War and theorized by Norbert Wiener, John von Neumann, Claude Shannon, and others whose work laid the foundation for generations of computers, networks, robots, and digital swarms. Developed within the U.S. “iron triangle” of military, corporate, and academic interests, cybernetic technologies rapidly became the basis of a commercial academic interests, cybernetic capital of militarized corporate, and within the U.S., “iron triangle” and digital swarms. Developed of computers, networks, robots, the foundation for generations the vortex—surplus value—is siphoned into commodities and others whose work laid Newmann, Claude Shannon, Norbert Wiener, John von and Cold War, and theorized cybernetics both by World War II and financialization, money seeks a direct leap to money-amplified. This vortex is machinic. Driven by competition, conflicts with other systems, and primarily by an imperative to control and increase the productivity of labour, capital employs ever more machines relative to the labour power it activates.

From its inception, and especially from the 1970s on, cybernetics was deployed on advanced capital’s home front to break down an industrial working class whose strike power was driving wage and salary increases and offices, punishing the class-subordinated factories involved in primary activities. This machinic intensification of production via self-guiding tools, relocating in Japan at a higher level by design mechanized production, was deployed on advanced capital’s home front especially from the 1970s on, from its inception, and everywhere: automating factories took off on a runaway node—look off on a runaway node—the square of the number increases in value of a network increases as mechanized’s, which decays the every eigenvalue monotonically, and power doubles approximately per doubling of the number of nodes. which specifies that the computer and its power be available at a given which specifies production—where’s, digital production—lowing the two great “laws” of computer industry, which fol—logistic aspects of cybernet- ical technology rapidly became commercialized, an acceler- SURPLUS VALUE
FarmVille is a farming simulation social network game on Facebook played by millions of players. To advance in the game, players are encouraged to buy “farm bucks,” which are available for purchase with real-world cash. It features in-game partnerships where users can visit a company’s virtual farm and buy or receive items with that company’s logo. FarmVille partnerships include Frito-Lay, Capital One, American Express, Lady Gaga, Haiti Relief Fund, Discover Card, Farmers Insurance Group, Microsoft Bing, and 7-Eleven.
Hustle is a cabinet-style arcade video game developed in 1977, where you “collide with boxes to collect the points shown. Avoid colliding with your opponent, the walls or your own tail. Hitting these will get you penalties in a one-player game, but making your opponent collide will award you points. You have unlimited lives but only 90 seconds.”


Hustle: working from the bottom to the top; hustle: a confidence trick; hustle: seeking money through shady means, such as pimping or drug dealing.
The Turk borrows from Amazon Mechanical Turk, named after a chess-playing automaton developed in the eighteenth century. Amazon’s version is a crowdsourcing-based online labour-market platform, where workers are paid as contractors. As such, “requesters,” or employers, avoid any payroll taxes and also avoid regulations regarding minimum wage, overtime, and worker compensation. Workers, conversely, must report their Mechanical Turk earnings as self-employment income. The average wage for micro-tasks, if performed quickly, is one dollar per hour, with each task averaging a few cents. The Mechanical Turk was invented by Wolfgang von Kempelen in 1770 and meant to impress the Hapsburg Empress Maria Theresa. However, it was revealed much later, in the 1850s, to be an elaborate hoax, with a small human chess master hidden inside the machine performing the contraption’s seemingly mechanical tasks.
Grand Theft Auto V’s level of violence is the highest it has ever been, resulting in the video game being banned from retail stores in some countries for disturbing scenes of violence, against women in particular. Let’s Play episodes appear on YouTube depicting the graphic slaying of women.
**PewDiePie** is a YouTube personality known for his *Let's Play* video game commentary. He has 47 million YouTube subscribers and lives with his girlfriend CutiePieMarzia, a YouTube personality with some six million subscribers. PewDiePie studied industrial economics.
Logistics governs the complex circulation of material and information that constitute contemporary imperialism. Logistics is now ubiquitous in the government of supply chains such that the genealogies of its practice and the politics of its spatial calculation are largely hidden in plain view. Logistics manages the movement of labouring bodies, and the movement of materials that sustain bodies (human, corporate, and political). Yet the logistical imperative to sustain life in motion across space has long been inextricably tied to organized killing and conquest. Logistics was born of the ancient arts of war and then schooled in the modern science of business; it heeds no boundaries between the civilian and the military. In true imperial fashion, it relies on borders—both conceptual and spatial—to exploit and transgress.

Stefano Harney suggests that the first large-scale exercise in logistics was the Trans-Atlantic slave trade.¹ There are older genealogies of the practice in ancient warfare, yet it is telling that the Middle Passage was its first modern proving ground. This suggests that the troubled and troubling relationship between logistics and labour is far from new. While logistics is a technocratic field par excellence which makes efforts to exempt itself from ethics and politics, it has nevertheless played a vital role in drawing the precarious boundaries between human, commodity, and cargo—and in creating systems that supply one to the other.

Logistics was historically charged with answering the “how” questions provoked by strategy. In its ascendance, as it began to define rather than support military and eventually corporate strategy, logistics also began to transform production. Things—commodities, species, and subjects—are today produced in its image, with profound implications for work and labour. The IKEA flat pack is only among its most visible forms. In the post-WWII period, logistics has become an umbrella field under which production and distribution are refigured. This “revolution in logistics” relied centrally on data-intensive calculations of the “total cost of all materials” movement, as well as the rise of the computer. Without digital technologies, the factory could not have given way to the supply chain—a disaggregated and spatially dispersed system of making and moving.
The implications for work and labour of a logistical era are profound, though highly uneven. “Process mapping” has seen Taylorism re-scaled to the supply chain, at the same time as the intimate movements of transport, warehouse, and distribution workers are digitally tracked and traced more actively than ever, as Anja Kanngieser has discovered. Logistical Cities—the evolution of the export-processing zone into fully mobile and outright militarized “exceptional” nodes in transnational circuits of flow—borrow more than just bunker architecture from their prior lives as military bases.

But if logistics has brought the full system of circulation under its harsh jurisdiction, the just-in-time supply chains it underpins are also highly vulnerable to disruption, as many labour and social movements have begun to demonstrate. Blockades at key chokepoints and chains of solidarity that occupy networks of military and corporate trade highlight the alternative futures alive within this violent present.

Notes

Nicole S. Cohen

To hustle means to hurry, to work busily. A hustle is a source of income, a paid job, although the term still carries an air of illegitimacy. Hustle is an all-too-familiar mode of being for millions of precariously employed workers, who juggle multiple gigs, do what needs to be done to make money, and experience uncertain futures. As precarity creeps up the value chain, workers in the glamourized media industries must hustle, too.

Freelance journalists embody hustle. Their working lives are exhausting: twelve-hour days writing endless streams of quick-hit articles for fifty dollars here, two-hundred there; chasing perpetually missing paycheques; looking for future work; managing multiple projects; self-promoting; anxiously navigating intermittent work and pay; and negotiating what one freelancer describes as “the dual pressure to appear productive and successful while also available for hire.”
Working outside of employment relationships, freelancers live by selling bits and pieces of work to various media outlets without access to regular pay, social security, or labour protections. Once marginal players, freelancers now form the core of expansive global media industries seeking to cut costs while simultaneously producing more media content than we have ever seen before. And so, freelancers whip up articles on tight deadlines for very low pay, under copyright agreements that demand, for example, “all rights, in perpetuity, throughout the universe,” including rights for formats yet to be invented. And such exploitative arrangements, which extract escalating surplus value from workers, are often framed as not work—freelancers are relentlessly presented with “opportunities” to gain exposure and “build their brand” via no-pay articles for highly profitable media corporations.

Freelancers speak of enjoying flexibility, of the ability to, say, go for a run in the middle of the day; yet most work through weekends and vacations, take on too much work out of fear of having none, and are mired in churn: the “perpetual dissatisfaction” of producing “one-thought” articles that require as little labour time as possible, rather than writing articles journalists think are important. Under such conditions, investigative reporting is being abandoned, as it now requires freelancers to go deep into debt. Journalists are often paid based on the number of clicks their articles receive, putting pressure on individual articles to act as mini-profit centres, generating enough ad sales to pay a writer’s fee.

Such dynamics are transforming journalism into “content,” or undifferentiated material generated in endless cycles of media production and fuelling capital accumulation online. We are witnessing the “real” subsumption of journalism, or the “restructuring of social relations according to the demands of capitalist valorization.” This is a shift from “formal” subsumption, where capital imposes on pre-existing forms of production or labour processes. Under real subsumption, production processes and work routines are organized explicitly to enable capitalist extraction of surplus value. For Sut Jhally, real subsumption of media signals the solidification of primarily economic institutions designed to “[reap] the biggest return...,” where media is “produced foremost as a commodity rather than an ideology.”

Emergent digital technologies are being used to extend and deepen the commodification of journalism, which is now valued solely for its ability to link advertisers to consumers. Journalists are tightly bound to market logic, their lives ex-
experienced as hustle: endless idea-seeking, selling oneself and one’s capacity to produce, and the never-ending pursuit of contacts and connections. Every social interaction is a possible story and each person encountered a possible lead, as writers’ whole lives are transformed into sources of potential productivity. Welcome to work in the content factory.

Notes

Marcus Boon

DEPROPRIATION

By “depropriation” I mean to suggest various practices that render things unownable.

The word has several lineages, no doubt interlinked. One passes through French feminist writers, notably Hélène Cixous, who uses the word to describe a state of open embodiment of which the mother’s care for a child is exemplary. Another passes through Philippe Lacoue-Labarthe’s work on mimesis, in which he proposes a mimetic force that undoes ideas of original and copy since it constitutes that plastic, mutable non-thing which makes both original and copy possible. A further lineage passes through the work of Giorgio Agamben and his notion of a “whatever being” that cannot be
understood in terms of property, an idea then taken up by Roberto Esposito in *Communitas*, in which he argues that *depropriazione*, a fundamental lack of property—an impropriety—is the basis of the commonality of humankind, or even of all Being.\(^3\) In other words, that what we share is a lack of property, an unfinishedness, an openness, or vulnerability—a vulnerability that also suggests the possibility of depropriation as violent dispossession.

The word depropriation is helpful to me in understanding many contemporary situations: the emphasis of the Occupy movement on occupation as inhabiting a privatized space in the name of an undefined and open concept of a public and a commons; the dissemination of private and state documents on the internet by WikiLeaks, again rendering these documents unownable but available to a public; the prevalence of informal and/or pirate economies around the world, but particularly in the Global South; the entire (dis)organization of contemporary global drug cultures, from their phenomenological effects to their global production, distribution, and consumption; Fred Moten and Stefano Harney’s propositions concerning “the undercommons” as a commons defined by its impropriety, by the bad debt that its members share, and by the possibility that the forms of life shared among the undercommons are not an error or failure waiting to be fixed by law, the state, and legitimate political economy.\(^4\)

Recognizing dispossession as constitutive of contemporary and historical suffering on a global scale, to think depropriation is to refuse to respond to this dispossession with a counter-appropriation, and to imagine new forms of life and structures for sharing.

Esposito demonstrates this as a formal and philosophical possibility, drawing on an analysis of the proper and improper in Heidegger, which are often (mis?)translated as authentic and inauthentic.\(^5\) Yet for me, I am continually drawn back to the striking example with which Agamben concludes *The Coming Community*: the crowd of demonstrators in Tiananmen Square, who stand forth in a militarized public space, without demands, asserting their Being. Whether Agamben is completely correct in this analysis, the scenes have been repeated in recent years, in the various locations and uprisings of the Arab Spring. And more recently in the Occupy Wall Street demonstrations, where, for example, one protestor carried a sign that read: “We’re here. We’re unclear. Get used to it.”

Marcus Boon

 Depropriation
To the discussion on the implications of “the digital” for the global working classes, I offer some framing thoughts on the wage as a variegated and fractured social relation; more than the mere pecuniary wage rate, it is an object and arena of struggle.

Contemporary labour relations under late capitalism are heavily mediated through digital(ized) infrastructures, such as in the deployment of computerized logistics to catalogue, contain, and coordinate the movements of commodities and labouring subjects across vast geographic distances. Insofar as digitalization can be characterized as the expression in binary sequences of otherwise non-binary realities, the wage itself operates as a kind of digital technology, for inscribed upon it are a series of interlocking, hierarchical binary constructions including: work/non-work, free/unfree, paid/unpaid, skilled/unskilled, masculine/feminine, white/racialized, domestic/foreign, abled/disabled, North/South, and union/non-union. These binaries serve as the matrix by which internal and external “Others” of the wage are socially coded.

This means that struggles over the wage concretize class relations not independently of, but rather in mutual and contradictory determination with gender, race, ethnicity, nation, and citizenship. In particular, cultural-political articulations of difference underwrite hegemonic attempts to stave off crises of accumulation and legitimation through “under-reproduction strategies” predicated on the neocolonial, racialized, and gendered creation of surplus population on the one hand, and the suppression of wages below the value of labour power on the other, thereby undercutting the reproduction of living labour. This deadly “fix”—that is, expanding absolute surplus
value via dispossession and hyper-exploitation—effectively regenerates the conditions for the continued production of relative surplus value under “normal” conditions in the guise of “free” labour.

Therefore, cultural-political articulations of the wage—in the dual sense of expression and connection—extend beyond questions of “how much” to encompass what the wage means in cultural terms, and what or who is included or excluded within its boundaries. Just as workers seek to shape human geography by imposing their own “spatial fixes,” they also create “digital” fixes to articulate political claims and visions around the wage. They deploy discrete rather than continuous numerical values of the wage as fluid signifiers to facilitate the circulation of meanings and solidarities across social and spatial distances. This is exemplified by the Fight for $15 movement led by fast-food and retail workers across the United States aiming to lift the minimum wage, and by the Coalition of Immokalee Workers’ campaign to raise farmworkers’ piece-wages by one cent per pound. By organizing discourse around symbolic wage rates, struggles for quantitative changes can enable qualitative transformations. Mobilizing around discrete nodes along the otherwise continuous scale of exchange value, these movements grasp the use value of the wage as a cultural-political resource with which to forge a sense of community and collective identity—a potentially counterhegemonic “us” in struggle.

Notes
The human experience of time is largely a social construction; dominant temporal orientations—that is, the relative cultural value placed on different dimensions of time: the past, present, and future—are also historically and culturally contingent.¹ In the West, the period of modernity has been marked by a speed-up in our experience of time. Hartmut Rosa, a leading proponent of this theory, argues that the “general process of social acceleration” should be considered the fundamental process of modernity, and one that assumes three analytically separable forms: technological innovation, the rate of change, and the pace of life.² In our daily lives, acceleration means that we increasingly experience time as a scarce resource: we turn to speed dating, fast food, and 24/7 information flows to assuage (while simultaneously and paradoxically aggravating) the growing and competing pressures on our time.

Among the central forces responsible for driving this process, Rosa has identified capitalism as the “most obvious source of social acceleration.”³ He affirms that the connection between social acceleration and the basic dynamics of capitalism involves not only competition, but also the need to commodify (labour) time and accelerate the turnover time of capital.⁴ Aided by modern, time-annihilating technological developments such as the telegraph, capitalist vested interests worked to displace the pre-modern, tradition-bound past orientation with a future outlook based on strong faith in social progress and the growing need for more precise time measurement and scheduling—what scholars call the ascent of “clock-time.”⁵ Starting in the twentieth century, the dominant temporal orientation in the West shifted again, away from clock-time and toward what Robert Hassan has termed “network time.”⁶ Characterized by high-speed, short-term perspectives and the imperative for immediate responses, the ascent of this powerful new temporality can only be properly explicated with reference to the nexus between neoliberal globalization and the penetration of daily life by high-speed communication technologies. In the attendant cultural milieu wherein speed and novelty are fetishized, the past and long-term future become relatively marginalized, with profound yet often
overlooked consequences for oppositional social movements.

Faced with aggravated time pressures, social movements increasingly reflect rather than resist the hegemonic speed imperative. One manifestation of this tendency is the pervasive “addiction to urgency” that results in many one-off, event-based movement mobilizations that are often spectacular and attention-getting, but too often fail to translate into sustained action and the kind of long-term commitment arguably necessary to effect meaningful social change.7

In these turbo-times, taking the time to think reflexively about the past or to plan the long-term future seems like a luxury. Yet it bears repeating that much like capitalism, the associated “culture of speed”—in which most people feel too harried to partake in democratic life, in which movements themselves are reeling from the effects of acceleration—is a product of history, and hence remains subject to social transformation. In striving to radically change the social order that compels acceleration, intermediate steps could address how time is distributed as an aspect of power. Working toward this goal would surely be time well spent. ■

Notes
3 Ibid., 91.

Indu Vashist

The Hindustani word jugaad, meaning “make do” or “hack,” has been commonly used to illustrate innovation within Indian capitalism.1 Some business gurus trace the origins of jugaad to the post-independence era when parts for machinery that were imported from England were unavailable, and thus Indians had to cre-
ate parts out of scraps in order to keep the machines running. Others argue that *jugaad* is a way that people creatively resolve problems that arise from poor working conditions or lack of resources.\(^2\) *Jugaad* is when a busy tea vendor welds four spouts on his metal tea pot, so that he can pour four cups of tea at a time; or when the gas runs out, and a cook turns on a clothes iron to the highest setting, lodges it between two books and puts a pot on top of it so that he can feed his family.

OlaCabs is an indigenous personal transportation aggregator app that provides users with access to a variety of options ranging from luxury cars to auto rickshaws, three-wheeled open-sided vehicles. Ola’s move into the auto rickshaw market illustrates how the western “sharing economy” model is indigenized through *jugaad*. Rather than take a cut from the workers’ wages, Ola offers incentives to workers. It currently dominates its competitors by operating the largest fleet and offering the lowest prices to consumers. Its indigenous origins notwithstanding, Ola’s success is entirely dependent on backing from venture capitalists in Silicon Valley.\(^3\) This support has made Ola one of the country’s fastest growing businesses—however, it is yet to break even.

*Autowalas*, the auto rickshaw drivers, are self-employed, and those in Chennai are notorious for refusing to use the meter. The process of taking an auto is that the client approaches and engages with the driver in an often heated argument over the fare. The fare that is usually agreed to is about triple or four times more than what the meter would have been, had it been used. *Autowalas* in Chennai have two major complaints about the process: first, that the metered rates do not keep up with inflation (rendering meters useless), and second, that negotiating a reasonable fare with every client is stressful.

With Ola, in contrast, the driver turns on the meter and the client pays a nominal 10rs above the metered rate. On top of that, Ola pays the worker 30rs per trip and an additional login incentive. The transaction is thus simple and stress-free for both driver and client.

Ola *autowalas* need to work double the amount of hours to make about the same amount of money as before Ola entered the market. After much trial and error, however, most drivers developed a *jugaad*: they combined Ola rides and rides hailed from the street. While the driver is able to negotiate significantly higher fares from street clientele, this extra money is lost as it is difficult to find a return client in less populous areas. The large
number of clients on Ola makes it easy for the drivers to be able to find rides anywhere. This way, the vehicle is always moving with clients.

In general, jugaad is instrumentalized by company owners to fill in existing gaps in the market, in terms of demand, supply, working conditions, etc.—to maximize profit. The ethos of jugaad is also used by workers to adapt to the rapidly growing Indian economy, while contending with scarcity and precarity. Ola strategically has enacted its own jugaad of business practices to fill the gap in workers’ satisfaction—stress-free work conditions. Autowalas have adapted to their circumstances without abandoning earlier practices, responding to an economy where productivity is valued over fair compensation. They have exchanged peace of mind and constant productivity over feeling idle and having unpleasant arguments with clients. They are trying Ola alongside the existing system of meeting clients, keeping what works for them and ignoring the rest—a jugaad that is most beneficial to them. Ola’s model is ultimately not sustainable, as it relies on foreign funding from Silicon Valley. What will happen when the money runs out? Another jugaad, I expect.

Notes

Sarah T. Roberts IN/VISIBILITY

Visibility and invisibility are two states typically juxtaposed with one another. One is predicated on being able to be perceived or seen, while the other is defined by absence, unable to be identified or perceived. While these two states are frequently expressed as opposites, they can also exist in a more complex and seemingly paradoxical relationship, in which one begets the other. In other words, the invisibility of a thing can render another visible; likewise, the visibility of one thing can obfuscate the existence of another—and, along with it,
its politics, contexts, antecedents, attendant influences, or impacts.

Particularly in online life, there is frequently a normative supposition that the information- and image-rich environment of the web and other platforms should, in the best circumstances, provide unfettered access to the circulation of all types of content, from the beautiful to abhorrent, from the pleasurable to prurient (and the pleasurably prurient, in many cases). Less attention is paid to what is not seen, to the invisible—be it actual content that is rescinded, altered or removed, or the opaque decision-making processes that maintain its flow.

The interplay of in/visibility online—determining what is available and unavailable for view—is central to the intertwined functions/mechanisms of user experience and platform control. Online in/visibility is further operationalized under globalized, technologically driven capitalism by a digital labour phenomenon that is both responsible for it and relies upon it: commercial content moderation, or ccm.

ccm is the screening of user-generated content, such as images and videos, for social media sites and platforms, by a globally dispersed workforce tasked with judging the “appropriateness” of content. Yet despite its essential function for digital media production in terms of brand management and legal compliance, ccm is a relatively unknown phenomenon, except to those who practice it, as ccm interventions remain largely invisible to sites’ users.

ccm workers are invisible by design. Whether working onsite at the global headquarters of a major internet firm, as call-centre contractors, or micro-task labourers, they are often immersed in disturbing, upsetting content day in and day out, viewing and then removing vitriolic hate-speech rants, racist imagery, or content depicting violence, animal abuse, sexual and physical assault, and death. Indeed, constant exposure to such material can lead to psychological trauma for ccm workers, the long-term results of which are not known.

The invisibility of ccm labour allows the public to imagine that social-media production is a painless, immaterial, and inhuman—rather than inhumane—process, and that any such curation practices that might occur happen only via algorithms and computational power, despite the fact that no computer can presently match human mediation. Further, ccm work is migrating across the globe to sites where labour is less expensive, more abundant, and invisible to Western custom-
ers for whom much of the content is destined. Thus, the material realities and outcomes of ccm have shifted to sites where fewer people (in their role as “users”) will perceive them, and where power relations (such as lax labour protections) minimize the potential interventions that could arise from such perceptions in the first place.

The rendering visible of ccm workers and their interventions is a critical first step toward ameliorating the negative aspects of ccm working conditions. This move from invisibility to visibility will further engender the development of a much more accurate picture of the affordances and costs of online life, as well as question the nature of online spaces as fundamentally democratic—and at what (and whose) ultimate expense.

---

datejie cheko green  INTERSECTIONAL SOLIDARITY

As we demystify digital labour and digital technologies in communications and knowledge production, as well as in work for social and global justice, I advocate that we attend—in a rigorously mindful way—to the basic relations we put into practice every day. This can hold the potential to generate new ways of knowing each other, and an awareness of the influences we have on each other when we connect, both digitally and directly. This is especially potent and necessary across geographical, cultural, economic, and other divisions of power, both current and historic.

Centring respect, courage, caring, creativity, clarity, and broadmindedness with every communication liberates us to move from the dispersed and arbitrary toward the collective and intentional. It opens pathways for mobilizing human and other resources to produce an equitable, just, redistributive, rehabilitative, and sustainable coexistence.

To this end, I submit “intersectional solidarity” as an existential proposition that opens up everyday ways of life toward decent and meaningful social relations—on personal, political, and global scales.

Intersectional solidarity considers and integrates the work, mistakes, lessons, and meanings of past and present movements for social justice and liberation. It builds an aware-
ness of 525 years of globalized theft, violation, dispossession, and enslavement that still coalesce in the service of democratic, capitalist, “digital” post/modernity. It also suggests an effective antidote to contradictions in what is valuable, and seeks to re-centre production and reproduction toward life and amity.

Intersectionality, so named by African-American feminist, lawyer, social justice advocate, and scholar Kimberlé Crenshaw, is a dynamic theory, framework, and praxis born of African-American women’s survival, organizing, and scholarship. It addresses the dehumanization produced by the “kind of intersecting oppressions that defies the logic of redress, not only in anti-discrimination law, but also in progressive politics...” These include manifestations of power organized to (re)produce and profit from constructions of race, gender, class, sexuality, citizenship, disability, and more.

Intersectionality delineates and demystifies how these manifestations affect bodies as they exist situationally, as well as structures and systems of domination that span space and time. Intersectionality foregrounds women of colour and indigenous women as social actors, interpreters, producers, intellectuals, and agents of radical change. It centres the intersectional practice of decolonial, feminist, and anti-capitalist organizing and scholarship.

“Solidarity” first appeared in late seventeenth-century French as solidaire, meaning an interdependent, collectively responsible affinity—“tous ensemble et un seul pour tous.” By the 1840s it was adopted into English as a unity of aspirations and common interests, and was notably evoked among radicalizing European men in imperial Britain, sovereign Europe, and colonial America, as they contested their shared exploitation as workers evicted off the land and compelled into industrial, waged labour under capitalism.

National and international solidarity was tied in concept and practice to organizing the power of these labourers. From Marx and Engels’s call, “workers of the world, unite!” until today, this industrial, occupationally informed, culturally nostalgic understanding of solidarity still dominates.

Though twentieth- and twenty-first-century International Solidarity Movements have been transformative beyond labour movements, evocations of “solidarity” today frequently leave unaddressed a core contradiction: that enfranchised groups of common interest can also reproduce oppressive internal hierarchies, exclusions, and hegemonies. Intersectionality has meanwhile suffered from contradic-
tions its progenitors sought to disperse: socio-political marginalization, authorial appropriation, scholarly abstraction, commodification, and fetishization—all resulting in disproportionate focus on intra-group social location, and less on the transformative potential for social relations and their role in systemic change.

Combining intersectionality with solidarity thus emphasizes all of our relations—those we have with ourselves, each other, the planet, and everything in our material reality. Infusing solidarity with intersectionality takes the limits off how solidarity has been mobilized for specific and closed groups over the last century, and breaks it open for all to consider, access, and practice equitably in the day-to-day.

Notes

---

**Brett Caraway**

**CONNECTIVE ACTION**

With each successive social contestation, the structure of struggle multiplies. Contemporary class struggle is marked by a progressively complex coalescence of issues, participants, arenas, platforms, targets, and repertoires. In the wake of the 2008 global financial crisis and 2011 democratic uprisings, a new logic of action emerged within the ecosystem of class struggle. Lance Bennett and Alexandra Segerberg refer to it as “connective action”—a mode of inclusive participation and relaxed organizational control, facilitated by digital media platforms, which has changed the organizational dynamics of protest.1
A wide and vibrant range of recent theory has examined the constituent social, political and technological elements of class struggle. Rational-choice theorists have explained the social character of struggle as an aggregation of individual decision-making. However, their emphasis on reward and coercion as means to ensure group participation has resulted in an unfortunate bias toward vertical and centralized organizational forms. Political process theorists, on the other hand, have analyzed struggle as a series of strategic interactions among participants making claims on the state. In addition, optimists and pessimists alike have subjected the technological element of struggle to sweeping evaluations in their attempts to summarize the communicative and logistical potential of digital-media platforms. These accounts, however, often obscure the social, political, and technological specificity of current (and historical) struggles. While all of these approaches have some utility for the analysis of class struggle, we must not lose sight of the ways that capitalism exploits the social divisions of labour, in different ways and at different times, in an attempt to perpetuate a social system based on class domination.

The complex ecosystem of class struggle has given rise to a new logic of action, facilitated by contemporary technologies, allowing for greater flexibility in organizational communication and group coordination. Hierarchical organizational forms still play a vital role in struggle—CUPE in the Ontario educational workers’ strike and the United Steel Workers during the U.S. refinery strikes are two recent examples. But Bennett and Segerberg assert that alongside organizationally brokered collective action, less hierarchically ordered forms of organization are occurring. They identify two ideal models of connective action. The first, crowd-enabled connective action, is notable for its use of complex assemblages of communication platforms, personalized communications among rank-and-file participants, and the absence of centralized or institutionally coordinated action. The Spanish anti-austerity indignados movement and the Occupy Wall Street protests are two recent examples of these leaderless movements.

The second model, organizationally enabled connective action, is characterized by loose organizational coordination of action and the use of “personal action frames” for engagement. Although formal organizations may exert some control over the agenda and plan of action, the margins of these networks enjoy more autonomy than before, by virtue of greater levels of inclusivity in their action frames. The ongoing our
Walmart movement for better working conditions at Walmart\(^6\) and the 2009 Wave Climate March in London are two examples in which formal organizations have played a vital yet somewhat less conspicuous role.

Researchers must consider the efficacy of these new organizational forms of class struggle to set coherent agendas, mobilize resources, maintain lasting momentum, and raise class awareness. Ongoing inquiries into the nature of class struggle must be part of the struggle. For if nothing else, connective action suggests that class struggle cannot be based on the *mechanical subordination and blind obedience* of participants to a centralized organization—be it intellectual, political, or otherwise.\(^7\)

---

**Notes**


---

**Chris Lee**

(Re)presenting Surplus: A Proposal

If money is the capacity to make demands, its uneven distribution privileges those positioned to extract it as surplus, robbing those who are entitled to this capacity through their labour. The diagram below is a thought experiment on the possibilities of combining alternative currency, postal banking, and basic income toward new forms of wealth redistribution.
A new currency functions as an avatar of the surplus value held by the owners of capital. (Re)presenting surplus in the form of a parallel alternative currency renders redundant the surplus denominated in the conventional national currency.

The infrastructure for the emission of the alternative currency is a modified postal service that performs financial
services through a network of postal banks. Postal services in Canada and the U.S. (where postal banking does not currently exist) are uniquely positioned to emit the parallel currency: they constitute a vast retail network, and reach remote areas of their jurisdictions.

Using its access to public financial reporting by large and small corporations, the postal bank assigns a dollar amount entitled to the constituency of workers, deducing the surplus value kept out of circulation, and using that value as the basis of parallel currency emission. This emission could take the form of public spending through procurement and wages/salaries of public sector workers, and subsequently could be used to extinguish tax obligations. It may also be emitted through a basic income denominated not in the national currency, but in the parallel one.

Private corporations would not pay workers in the parallel currency, but they may be permitted to extinguish tax obligations that are denominated in the parallel currency. These obligations could thereby function as a policy instrument to create incentives and mechanisms to compel corporations to mitigate the profit motive. For instance, the availability of a dual-currency tax obligation imposed specifically on private corporations could be used to justify a lower dollar-tax burden and higher parallel-currency tax burden, or vice versa. Since the parallel currency cannot be emitted through private finance and the conventional banking system, corporations can only obtain it through workers’ consumption.

BRET CARAWAY is a professor at the University of Toronto where he teaches courses in economics, law, and media studies. His research focuses on the intersections of information and communications technology, intellectual property, labour, and collective action. His most recent contributions include the application of Marxian crisis theory to the economics of online social media and an examination of how workers fighting for better working conditions at Walmart use contemporary communication technologies in class struggle.

NICOLE S. COHEN is an Assistant Professor at the Faculty of Information and the Faculty of Information at the University of Toronto. She researches the political economy of media labour and collective organizing and is part of the collaborative research project Cultural Workers Organize. Her book, *Writers’ Rights: Freelance Journalism in a Digital Age*, is published by McGill-Queen’s University Press (2016).

DEBORAH COWEN teaches in the Department of Geography at the University of Toronto. Deb’s research is concerned with the intimate life of war in ostensibly civilian spaces. Deb is the author of *The Deadly Life of Logistics: Mapping Violence in Global Trade*, *Military Workfare: The Soldier and Social Citizenship in Canada*, and co-editor with Emily Gilbert, of *War, Citizenship, Territory*. Deb serves on the board of the Groundswell Community Justice Trust Fund.

NICK DYER-WITHEFORD, an Associate Professor in the Faculty of Information and Media Studies at the University of Western Ontario, is the author of *Cyber-Marx: Cycles and Circuits of Struggle in High Technology Capitalism* (University

DATEJIE CHEKO GREEN is a strategic organizer, educator, scholar, media producer, and advocate. She has more than twenty-five years combined expertise working cross-culturally from local to international scales. In the 2010s her varied projects have found community under the discourse of precarity. datejie is developing “solidarity conscious” as a way to both frame and orient her intersectional feminist, decolonial, anti-capitalist, and people-to-people focused knowledge production, organizing, and praxis. @seeksolidarity

ALISON HEARN is an Associate Professor in the Faculty of Information and Media Studies at the University of Western Ontario in Canada, and is also the past president of Western’s faculty union. Her research focuses on the intersections of promotional culture, new media, self-presentation, and new forms of labour and economic value. She also writes on the university as a cultural and political site.

CHRIS LEE is a graphic designer based in Buffalo and Toronto. He is a graduate of OCAD University and the Sandberg Instituut, and has worked for *The Walrus*, Metahaven, and Bruce Mau Design. His research into alternative currencies explores graphic design’s entanglement with power, standards, and legitimacy. Lee is an Assistant Professor at the University at Buffalo SUNY, and a member of the programming committee of Gendai Gallery. cairolexicon.com

LETTERS & HANDSHAKES is a collaboration of Greig de Peuter (Associate Professor, Department of Communication Studies, Wilfrid Laurier University) and Christine Shaw (Director/Curator, Blackwood Gallery and Assistant Professor, Teaching Stream, Department of Visual Studies, University of Toronto Mississauga). Letters & Handshakes’ projects include the forums *Fighting Foreclosed Futures: Politics of Student Debt* (2012) and *Remaking Cultural Relations: Artistic Livelihoods and Collective Alternatives* (2014), and the exhibitions *Precarious: Carole Condé + Karl Beveridge* (2014) and *I stood before the source* (2016).
KAMILLA PETRICK is a postdoctoral researcher in the Department of Interdisciplinary Studies at Lakehead University and a lecturer in Communication Studies at York University. She holds a doctorate in political science and two prior degrees in media studies. Her research interests include digital culture, political economy, time and temporality, collective memory, and the role of technology in social transformation.

PUBLIC STUDIO is the collective art practice of filmmaker Elle Flanders and architect Tamira Sawatzky. Their multidisciplinary practice spans a wide range of topics such as war and militarization, globalization, ecology, and political dissent. Their most recent work includes *The Accelerators* (2015), an exhibition about trade, colonialism, and a networked constellation of events; *Drone Wedding* (2014), an eight-channel film installation examining surveillance in the everyday; and *Visit Palestine: Change Your View* (2014), in which they turned their art studio into a travel agency running tours to the West Bank.

SARAH T. ROBERTS is an Assistant Professor in the Department of Information Studies, Graduate School of Education and Information Studies, at UCLA. Her academic and research interests are focused on digital labour and “knowledge work,” and the reconfigurations of labour and production in a post-industrial, globalized context.

INDU VASHIST is currently the Executive Director of savac (South Asian Visual Arts Centre) in Toronto. She has extensive experience working within organized labour organizations and with unorganized immigrant and refugee workers. Her research interests include digital labour and labour facilitated through the internet. She is currently researching auto drivers in Chennai who use apps to find clients.

YI WANG is a PhD student in Geography at the University of Toronto and engages with contemporary food workers’ movements across the US as sites and forces of hegemonic struggle. His approach focuses on how the production of space is tied up with formations and articulations of race, class, gender, and nation. Yi has worked with food justice and worker organizations and studied previously at UC Berkeley and UC Davis.
Hitman 2: Silent Assassin is a stealth video game in which each level involves completing a set of objectives, usually including an assassination. The main character, Agent 47, is a contract killer who carries out hits in Russia, Japan, Afghanistan, Malaysia, and India. The game rewards critical thinking and problem-solving, and Hitman hacks include God Mode, All Weapons, A Full Heal, Gravity, and Lethal Charge.
TransOcean: The Shipping Company is a video game about transnational transport empires that allows players to build a fleet, track routes in real-time, load and offload freight in a "time-efficient" manner, and compete online for the most lucrative routes. "Time is money!" is a central tenet of the game, which is governed by the Iron Laws of Supply and Demand.
Daisy Fitzroy is the leader of Vox Populi, an underground movement in *BioShock Infinite*, a first-person shooter video game that takes its staging cues from the 1893 Chicago World’s Fair and examines the principles of American exceptionalism and its resistance. Vox Populi resembles the Occupy Wall Street movement, or, unwittingly and more accurately, Black Lives Matter.
Woodcut Surplus looks at the world of video gaming through the lens of digital woodcuts, exploring the eroding distinctions between work and play in the digital age as unique expression in video games. Woodcut Surplus revisits this medium once again, but from the perspective of digital labour. How does one produce a digital woodcut? And does the digital process allow for elasticity? The resulting works are screengrabs from video games, online content, digitized and finally rescued, manipulated, reworked by hand, and screenprinted. Each work in the eight-part series took approximately one hour, a rate more consistent with digital microwork.

Daisy Fitzroy is the leader of Vox Populi, an underground movement in BioShock Infinite, a first-person shooter video game that takes its staging cues from the 1893 Chicago World’s Fair and examines the principles of American exceptionalism and its resistance. Vox Populi resembles the Occupy Wall Street movement, or, unwittingly and more accurately, Black Lives Matter.

At the beginning of the twentieth century, German Expressionists explored an atavistic engagement with woodcuts and other printing methods to disseminate their utopian or critical messages to large audiences during times of great upheaval. The immediacy and directness of the woodcut medium worked against both the static, technically more refined prints of the time, and the staid art academies. Woodcut Surplus revisits this medium once again, but from the perspective of digital labour. How does one produce a digital woodcut? And does the digital process allow for elasticity? The resulting works are digitized and finally rescued, manipulated, reworked by hand, and screenprinted. Each work in the eight-part series took approximately one hour, a rate more consistent with digital microwork.