

Networked Social Reproduction: Crises in the Integrated Circuit

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Abstract: This paper argues that the means of communication are sites for, and aspects of, social reproduction. In contemporary capitalism, motivated as it is by new, networked digital technologies, social reproduction is increasingly virtualised through the means of communication. Although recent political struggles have demonstrated how networked technologies can liberate social reproduction from the profit motive and from commodifying impulses, the tendency is to invoke and accelerate socially reproductive crises—crises in the capacity to reproduce ourselves both daily and intergenerationally. These crises have psychic and corporeal impacts, and intensify Tronti's "social factory" thesis of capital's technical composition. In order to develop modes and means of liberatory communication in the integrated circuit it is necessary to untangle and chart both the pathways and outcomes of the crises networked social reproduction invokes.

Keywords: social reproduction, social factory, communications, digital technology, networked technology, social media, capitalism, crisis.

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The cycle of struggles that began in Tunisia and spread through North Africa, Southern Europe, and North America in 2011 were marked, by many observers, as "Twitter revolts" and "Facebook revolutions." Through these digital technologies and social media platforms activists were enthusiastically pushing back against ossified regimes, outdated ideologies, and economic inequality (Castells 2012; Mason 2012; Gerbaudo 2012; Herrera 2014). The means of communication, these argument appeared to suggest, were radically new technologies that would guide new pathways out of crisis.

While acknowledging the resistant possibilities that exist, in this paper I argue that the means of communication are more adequately imagined as sites for the reproduction of the social. Networked communicative technologies are in fact *aspects of* social reproduction; as much as the foods we eat, the beds we sleep in, the love we make so too are communicative technologies elements that permit the quotidian replenishment of human beings and of labour power. While the possibilities of social reproduction autonomous from, and even resistant to, capital's accumulative regime *can* flow through these networks, as the aforementioned theorists suggest, the digital means of communication as they appear today instead tend social reproduction towards crisis. The crises these technologies invoke have psychic, affective, and corporeal impacts, reproducing us as workers but obscuring our existence as human beings. In such socially reproductive crises we become further alienated from the products of that labour: the relationships we build amongst ourselves, the care we demonstrate for others, the solidarity we experience and share collectively.

In this article, I begin by developing a detailed definition of social reproduction emerging out of Marx's own writings but deepened by the work of feminist Marxists theorists from the 1970s onwards, particularly those affiliated with Italian theories of *operaismo*. I then demonstrate how the means of communication are part of the category of social reproduction, and how their networked capabilities in the present moment deepen the social factory into our

own personal relations and intimacies. I then outline how networked technologies in particular invoke a crisis of social reproduction in both the production and the reception of communications, a crisis unique to this particular moment in capitalist history.

1. Social Reproduction: Theoretical Lineages

The 2008 financial crisis brought renewed interest to Marxist categories and theories of capitalism. Circumscribing capitalism as an economic system of antagonism between waged workers and owners has been materially and theoretically incomplete. Capital is fundamentally, as Marx noted, a system of social relations engaged in a perpetual process of expansion, in formal and real subsumption. As such, *how* this system and its participants are produced and reproduced on a daily and intergenerational basis becomes an important frame through which to consider both accumulation and resistance.

Even prior to Marx's analyses of capitalist production, Francois Quesnay in his 1758 *Tableau Economique* asked how does a complex society "characterized by decentralized decision-making reproduce itself" (Brown et al. 2013, 78) in such a way that that the individuals and classes necessary to its continuance reappear after each productive cycle? In Quesnay's era the reproduction of the social relations of production were based in land: the enclosures of the commons and the transformation of rural peasants into an industrial workforce. This process, which Marx (1977) referred to as "so-called" primitive accumulation, rapidly changed the primary location of reproductive relations—from the land capital found its site of reproduction in the body and its labours (Mies 1986).¹ In the second volume of *Capital* Marx (1978) detailed the circulation of capital (with its wage goods and commodities, for example, as well as wages and profit rates) so as to demonstrate how these circuits return to their starting points at the end of each cycle, thus reproducing the capitalist system and even expanding it. Labour and labour-power (the capacity to labour) reside at the heart of this circulating system.

In volume one of *Capital* Marx (1977) noted that labour is the singular commodity most necessary yet most demeaned by capital. Labour is that which sets the capitalist system in motion, maintains its existence, and is the source of all its value. The appropriation of surplus value through labour power is the source of the capital relation. While capital can be ephemeral and shifting, labour power can only ever reside in human beings; but human beings are not reducible to their capacity for labour. Thus that which is necessary for the completion of capital's circuit can often conflict with the necessities for the survival and reproduction of labour power, and with it human beings. Capital wishes to drive down the costs of reproducing labour-power by seeking reductions in the wage; this conflicts with the efforts of workers to increase the wage rate as much as possible. Capital seeks to "make the reproduction of human beings as dependent as possible on the wage and thus waged labour" (Brown et al. 2013, 79) so that they will be forced to work to survive, regardless of capital's downward pressure on wages. If workers have access to non-commodified means of reproducing themselves, whether fully autonomous or via the state, they become less dependent upon the sale of their labour to capital, and hence can resist capital's attacks on wages. Capital attempts to pre-empt this by expanding both spatially across the globe but also across sectors, subsuming ever more activities into the wage relation and, in their acts of resistance, human beings continually search for means of reproduction that escape the commodifying nexus of capital, grounding class struggle in social reproduction.

¹ The notion of primitive accumulation being an historical process of Proletarianization, originary but over, has long been critiqued. In Marx's own time Kropotkin (1995) argued that capitalist required continued unmasked and unmediated violence to maintain its relations and operations of production, and later Luxemburg (2003) asserted that primitive accumulation was actually a continuous and constitutive feature of capitalist expansion. More recently, post-colonial theorists such as Ranajit Guha (1983, 1998) and Samir Amin (1974), feminist theorists such as Federici (2004), and indigenous political theorists such as Glen Coulthard (2014) have worked to critically reconstruct Marx's primitive accumulation thesis to demonstrate it as an ongoing and critical component of capitalism in colonial relations.

Neither Marx nor the many Marxists that followed took seriously the origins of reproducing labour-power and human life, nor what it would mean to develop non-commodified forms of social reproduction. Instead the focus of classical and orthodox varieties of Marxism—and even many heterodox readings—has been on understanding the reproduction of the capitalist-worker relation and not on the reproduction of the worker herself, as both living organism and as labour potential. It was feminist activists and theorists in the 1960s and 1970s, particularly for my interests people like Mariarosa Dalla Costa, Selma James, and Silvia Federici, who proposed to expand Marx's notion of labour as a thesis for thoroughly understanding capital's accumulative processes. They traced the circulation of capital accumulation backwards from the point of production to the point of reproduction—the home, the kitchen, the marital bed (Dalla Costa and James, 1973)—and insisted upon the link between primitive accumulation and women's reproductive labour (Federici 2004; Fortunati 1996).

In most basic terms, then, this is social reproduction: the daily and intergenerational processes of reproducing human beings which takes place in the home but also in the school, the hospital, the prison, and of course even online. Usually conceived of as the reproduction of the whole of society, of social relations, of material conditions, of people as human beings, and as capital or rather, labour-power—that which gives birth to capital—social reproduction is contested, contradictory, and can be unsustainable (Elson 2009). Feminists in the 1970s focused heavily on domestic labour, arguing that capital's own reproduction was reliant upon the naturalised and unpaid labour of women in the home. Child-rearing, elder-care, cleaning, cooking, tending to emotional needs, and even engaging in sex with men were all activities which “subsidised the male wage but also capital accumulation” (Mies 1986, ix) and reproduced the capacity to labour. Defining women primarily as housewives—a process Mies (1986) called “housewifization”—served the dual purpose of making caring labour in the home natural and “free” (i.e. unwaged), while also making women's paid labour come to be seen as supplemental and thus devalued socially as well as financially (Mies 1986).

Beyond domestic labour, social reproduction has come to encompass a whole set of activities that permit the reproducing of the social and material relations of capitalism, as well as the possibilities of resistance. Theories of social reproduction have expanded the gendered lens through which to understand political economy (Bakker 2007) and broadened critical intersectional theories of race (Hopkins 2015). Understanding access to water and water rights (Roberts 2008), theorising childhood (Katz 2001; Ferguson 2008), contesting public policy and state-based social services (Bezanson and Luxton 2006), critically analysing education, socialisation, and the solidification of the nation state (Bourdieu 1973; Morgan 2004; Lave 2004), and contending with migration and migrant justice (Mountz 2004) have all benefited from operationalizing a social reproduction framework in recent years. Social reproduction theory has been a formula to support notions of resistance that move beyond the dichotomy of states and markets (Bakker and Silvey, 2008) and open towards prescriptions for the commons (Federici and Caffentzis 2014). In these works and in many others, social reproduction theory has allowed for the inclusion of unpaid labour, and in particular the work of care, into a critical political economic analysis, and has opened up the politicisation of often ignored women's labour.

Broadly, we can think of the support we give to others, the regenerative activities of care we participate in, the work of “maintaining a sustainable environment, or satisfying emotional needs” (Brown, et al. 2013, 78) as the affective components of social reproduction. These take place in the domestic sphere but also flow through state institutions in the form of health care, education, and the social safety net. In general, social reproduction is all of those things which enable the basic means of existence through which we can create and sustain relationships whether this is to each other or to capital, and it is the processes of social reproduction that sustain capitalist drives for accumulation. Even when waged it is, as noted by Mies (1986) under-compensated. Processes of housewifization make precarious many of the forms of socially reproductive labour performed for a wage.

Despite, or perhaps because of, this Dalla Costa and James (1972), Fortunati (1996), and Federici (2012) have insisted upon the centrality of social reproduction to surplus value pro-

duction.² Caffentzis (2013) reprises feminist positions, arguing that “value is created not only in the work needed for the production of commodities, but also by the work needed to produce and reproduce labour power” (268). This contrasts Marx’s original formulation of value’s creation only arising in the process of commodity production, and that the value of labour-power is “measured by the value of the commodities consumed in its production, i.e., by a bundle of ‘waged goods’” (Caffentzis 2013, 268)

Marx never recognized the unwaged work consumed in the production of labour power, never considered it part of the production process or within the realm of productive labour. Feminist theorists have insisted upon the productivity of the reproductive realm, and the fundamental role of reproductive labour to the circulation of capital. Federici (2012) reminds us that producing and reproducing labour power and the social world of human beings has been as important to capitalist development as the factory system and commodity production. These theories of social reproduction forwarded by feminist Marxists in the 1960s and 70s gave new political heft to Tronti’s notion of the “social factory.” The social factory thesis suggested that increasingly, under capitalism, “the whole of society becomes an articulation of production” and “all of society lives as a function of the factory” (Tronti, in *Quaderno Rossi* no. 2 cited in Cleaver 1992, 137), but did not make such claims through a specifically feminist optic. Social reproduction theory considered previously invisible realms of labour, and made a space for women and other ignored subjects (peasants, colonised subjects, the unemployed, students) at the forefront of anti-capitalist struggle.

These feminist theories deepened Marx’s kernel of conflict at the heart of social reproduction, insisting that because whilst creating labour power reproduction also creates autonomous subjects capable of revolutionary change, social reproduction has an inherently dual character. It simultaneously produces workers *for* capital and human beings antagonistic *to* capital. Because of this dual character both the sites of social reproduction—where people are raised, trained, educated, and socialized for work in schools, homes, welfare offices, and social media platforms—become powerful points of struggle. Such labour, and the locations of that work, have been largely—though not exclusively—feminized, often unwaged, and increasingly racialised. As such they have been devalued as labour, and almost invisible in histories of class struggle. In the contemporary moment, though, these sites are coming to the fore in conflicts with capital’s drive towards growth and intensifying inequality.

Understanding the role of social reproduction in the circulatory processes of capital was fundamental for developing theories of accumulation beyond the wage relation, for developing a deeper analysis of capital’s accumulative processes, and for expanding sites and agents of struggle beyond the waged worker at the point of production. In this vein, understanding the role of the means of communication as *aspects of* social reproduction, and the ways in which networked communications intensify this dynamic, marks a way into further understanding the current regime of capitalist accumulation, rooted as it is in advanced and networked technologies. This understanding gives us a foundation for proliferating both new sites and new forms of resistance to the subsumption of our lives to capitalist drives. In order to begin the project of developing and proliferating networked resistances, though, it is necessary to understand the socially reproductive aspects of the means of communication. With this knowledge we can begin to clarify networked means of communication as invoking a socially reproductive crisis in its machinic enmeshing of the human being with the social factory.

² While Dallacosta and James (1973) have argued that activities of reproduction (including housework and other forms of domestic labour) may not be immediately but is “ultimately profitable to the expansion and extension of the rule of capital” (Dallacosta and James 1973), Fortunati (1996) goes further, attempting to demonstrate that reproductive labour is productive of value within a Marxian framework, challenging Marxist orthodoxy which suggests that reproductive labour is a precondition of future value creation, keeping labour-power costs low, but does not itself create value. For Fortunati (1996), labour-power is a commodity like all others, only contained within the person of the husband, in her argument. Domestic labour, for Fortunati (1996), is part of society’s aggregate labour that valorises capital, but is devalued because it is contained within the individual, and hence not recognized. Similarly, unpaid reproductive workers—women and housewives, in this case—are not recognized as waged workers although, Fortunati (1996) claims, they are.

2. Social Reproduction and the Means of Communication

The means of communication have been key to recent Marxist analyses of contemporary capitalism (Dyer-Witheford 2015, 1999; Fuchs 2008, 2010; McChesney 2007) and Fuchs (2009) went so far as to argue that Marx was “one of the founding figures of critical media and communication studies” (369). In volume two of *Capital* (1978) and in *Grundrisse* (1973) Marx did note the importance of communications and transportation to corporate industrial infrastructure, and to the reproduction of capital. The relation of communications to social reproduction, though, was never considered. In this section I will briefly lay out an argument for considering the means of communication as an aspect of social reproduction both in the ways it permits for acceleration in the circuits of capital accumulation, and in the way it cements the reproduction of labour power to the exclusion of other elements of human life.

2.1. Circulation, Production, Communications

Media and the means of communication have been neglected in Marxist theorizing (Kjosen, 2011), but some media theorists have (ie., Garnham, 1990 and Fuchs, 2009) have argued for a systemic localization of media in capitalist theories of circulation and production. Circulation, for Marx, is the transformation of capital into value by way of circulating commodities between buyer and seller; production is the transformation of a product into a commodity containing value by the implementation of labour power and the means of production; and circulation time is the time capital takes to transform itself from money to commodity to money prime (M-C-M') in the capitalist circuit. Marx (1973; 1978) argued that capitalism made use of advancing machinic technologies—including communications technologies—to accelerate the reproduction of capitalism through reducing circulation time and the time for the realization of value. Manzerolle and Kjosen (2015) have argued that Marx's concepts of the circuit and circulation in fact imply a theory of communication *within* Marx's own work, and that digital media represents a general evolution of the capitalist logic of acceleration. The means of communication, they claim, “enable capital to move as an iterative process and are therefore key components to circulate capital; they are the means by which capital communicates itself in and through society” (153). They further argue that questions of circulation have been central to “Marx's analysis of the reproduction and acceleration of capital” and in essence “imply a theory of communication” (154), situating ongoing advancements in contemporary media and communications technology directly within the existing logic identified by Marx.

Others, such as Garnham (1990) and Fuchs (2009) have made connections between the Marxist concepts of the circuit or circulation of capital and the means of communication. Several decades ago Garnham (1990) argued that a political economy of mass communication is reliant on an understanding of circulation and can be made from a circulation-centric perspective. More recently Fuchs (2009) too eschewed a production-centric or base-superstructure approach to media analysis, focusing instead on circulation “and the accumulation of capital as it is described in *Volume 2 of Capital*” (Fuchs 2009, 375). Manzerolle and Kjosen (2015) suggest that renewed interest in a circulation-centric perspective for theorizing communications “stems from the emergence of a number of new technological phenomena that intensify capital's logic of acceleration,” allowing theorists to “treat capitalist as a system of production, circulation, and consumption of both commodities and ideologies” (154).

This is clearly a unique approach but neglects the relevance of feminist-Marxist theories of social reproduction in the production—and reproduction—of capitalism via these same emergent technologies. While understanding the means of communication as contributing to the production, circulation, and reproduction of capital is vital to critical theories of communication and resistance so too—and even more neglected—I argue, is understanding the *socially reproductive* role of the means of communication to capital. Imposing a lens of social reproduction on our analysis of the means of communication allows us to understand new modes of capitalist critique, as well as the resistant potentials that socially reproductive communications harbour.

2.2. Social Reproduction, Circulation, Production

As Marx (1977) and Federici (2012) have pointed out, the production and reproduction of life is part of the same process as the production of goods and services; and consumption is a necessary component of capital's circulatory and reproductive processes. Consumption is also a key moment of social reproduction. The material and symbolic means of social reproduction largely emerge from industrial and commercial/communicative processes in contemporary capitalism, such as marketing and advertising. As well as accelerating the speed of capital's circulation, and the reproductive circuit, these means of communication also adhere meaning to commodities and services consumed, contributing more to lived or embodied practices of social reproduction. In this way, the means of communication are necessary to the acceleration of capital's circulatory and reproductive processes, but are also key to reproduction of both labour power and human beings as they import meaning onto objects of consumption, aid in the organisation of the social, and socialize human beings to capital.

The socially reproductive aspects of the means of communication are particularly visible with regard to how human beings learn, and the ways this education symbolically cements us as labour power or human beings. Bourdieu (1973) noted that education takes place with the home and family, daycare centres and grade schools, but also through the "cultural capital" transmitted via the means of communication, what Lave (2004) considered "producing the future." Through communicative endeavours, certain aspects of social reproduction are embedded not simply in the present, but firmly constitute the shape and nature of future social and political relations. As such, Suzuki-Morris (1997) notes "schooling imparts knowledge to some but withholds it from others" (67). Colluding with communicative technologies, Giroux (2013) notes, educational institutions become powerful ideological tools for the legitimation of market driven values and social relations. Further, Giroux (2013) argues that it is the "centralized commercial institutions"—be they old media such as broadcast television or radio or the new interactive screen media—that tell the stories that shape our lives. The stories imparted by these media are important as they tell a society, Giroux (2013) claims, "about its history, civic life, social relations, education, children, freedom, and human imagination" (31). These stories transmitted via the means of communication thus determine the measure of value for individuals and societies as whole.

Suzuki-Morris (1997) also notes that "social knowledge" is part of the information imparted from others that contributes to socializing human beings. As workers and as people, social knowledge comes to us through institutional training and education, through the unpaid labour of parents and caregivers, through observation and imitation, but also importantly through the institutions of publishing and broadcasting—that is, through the means of communication. In terms of resistance, newspapers have historically been integral to the reproduction of resistant social relations in the 1905 Russian revolution (Lenin 1901) and to the factory councils of 1919 Turin Italy (Gramsci 1977). In the social movements of the 1970s mimeographs, video cameras, and especially radio were both sites of capital accumulation but also were reconfigured as sites of resistant social reproduction, aiding in the formation of communities and subjects of revolution (Berardi et al. 2009). The networks of communication through which contemporary capital circulates are also today the sites and nodes of certain high-tech, cyber-supported or digitally enabled social reproduction.

3. Networked Communications and Social Reproduction

The ubiquity of networked means of communication deepens Tronti's "social factory" thesis, subsuming social reproduction into capital and in that process creating overarching cultures of surveillance, commodification, and consumption. These networked technologies and their cultures narrow socially reproductive capacities, constraining resistant possibilities and giving way to what Berardi (2009) has called "panic" and the Institute for Precarious Consciousness (2014) has called "anxiety" as the dominant affective modes of our time. But because social reproduction is always simultaneously the production and reproduction of human beings and

labour power—thus possessing a dual characteristic—it always holds within it the possibility of resistance and serves as the “point zero” for the construction of radical alternatives to capital (Federici 2012). In order to develop resistant strategies of networked social reproduction, though, we must first untangle the digital roots of a crisis located within this labour. As such, I endeavour here to examine how networked communications intensify the dynamics of social reproduction already inhering in the means of communication. From this point we can then begin to express precisely how networked communications interdict and inhibit—as opposed to permit—more liberatory possibilities.

Since the 1990s the Internet has served an important role in the communication of socially reproductive struggles, and as a medium through which social reproduction travels. Messages sent by the Zapatistas via digital networks formed what Harry Cleaver (1998) called the “electronic fabric of struggle” and the Indymedia Centres developed around the 1999 WTO protests formed a global horizontal network for the communication, organization, and proliferation of antiglobalisation movements (Wolfson 2014). Even as the Internet matured into a tool a capital accumulation, possibilities of networked social reproduction became possible, as the Internet was increasingly used to express care, solidarity, and other forms of affect. As Jodi Dean (2014) notes, networked communication technologies provide “affective forms of care for producers and consumers” and offer “the mobilization of sharing and expression as instruments for ‘human relations’” (np) in workplaces and beyond.

Social media in particular has become an almost integral ground for maintaining the affective bonds necessary for flourishing human relationships. 67% of social media users have stated that they use online platforms primarily to stay in touch with friends and family members, and almost 50% use them to reconnect with old friends (Pew Research Centre, 2011). In parenting, the most obvious form of socially reproductive labour and in North America an often socially isolating role to take on, social media also plays an important affective role: 74% of parents who are social media users report using online networks to get emotional support from contacts, and 42% have used online social networks to get emotional or social support specifically around parenting (Duggan et al. 2015). Information about parenting that may have been passed on person-to-person via friend or family networks previously is now often comes to parents through social media content—59% of social media using parents accessed valuable parenting information this way (Duggan et al. 2015).

Considered more generally again, Dean (2014) notes that “ideals of access, inclusion, discussion, and participation [...] come to be realized in and through expansions, intensifications, and interconnections of global telecommunications” (np). Further, Coté and Pybus (2007) have argued that social networking sites like the (now-rarely used) MySpace.com help (mostly) young people “expand their cultural and communicative capacities” (88). Such online spaces also provide an autonomous public space for interacting and developing an affective dimension to technology use, Coté and Pybus (2007) claim. These elements are key to the collaborative, collective endeavors of social reproduction as witnessed in, for example, the projects of the Arab Spring or the Occupy movement. The trajectory of access, inclusion, discussion, and participation through networked technology highlights some of the particular shapes social reproduction is taking in the current regime of capitalist accumulation. While these networked communication technologies are serving a valuable role in enhancing, expanding, and accelerating the reproduction of human beings via care labour, capital is perpetually deriving profits from the expropriation of such communicative care processes, regardless of their personal or political content. Networked communications forging socially reproductive sites of care alongside moments of value extraction marks these media as possessing the same dual character that social reproduction itself carries, and reveals to us new potential sites of contestation and struggle.

The means of communication—*networked* means of communication—then, are key sites of socially reproductive resistances. They reproduce human beings as autonomous subjects, but they also commodify these same human beings through their socially reproductive activities. This can be seen in two ways: one, through the ideological, in the dispersal of security throughout the very fabric of our lived experiences online, helping reproduce obedient and compliant subjects; and two, more explicitly, through outright commodification wherein social-

ly reproduction activities are subsumed to the cash nexus.³ Although neither of these pose a crisis for capitalism, such constrained forms of social reproduction do mark a crisis point for the reproduction of human beings *outside of* their existence as labour power. The intense commodification in online environments can be read as a crisis of social reproduction—an obstacle (impending or present) to the completion of a reproductive circuit. In what follows, I will explain a crisis of social reproduction, and then highlight how this crisis emerges through the machinic intensities of contemporary networked communications. In so doing I will extend the analysis of the social factory to issues of reproduction, and demonstrate how the social factory moves from the office floor to the human psyche in a clean trajectory through networked technologies.

4. The Crisis of Social Reproduction

A crisis of social reproduction is an interruption in the completion of the reproductive circuit. For human beings this often manifests as a crisis in life and livelihood, putting human beings in physical or psychic jeopardy and potentially depleting their human capacities (Elson, 2009). This can include traumatic and devastating obstacles to existence such as war, famine, and genocide, or more mundane but equally devastating crises such as lack of social supports for education and healthcare, lack of adequate sustenance, unavailable or unaffordable child- or elder-care, and the absence of psychic support or an affective dimension to life and politics. As noted above, the means of communication are an aspect of social reproduction—a channel through which social reproduction flows. Networked communication technologies are pathways for the transmission of social bonds, sensory experiences, and bodily affects. At the same time, contemporary networked communicative technologies are primarily the product of capitalism's accumulative ideologies, and thus the subsumption of them into capital's regime of accumulation renders them tools of production rather than weapons of autonomous reproduction. The forms of social reproduction that travel through networked technologies reflects this tendency, accelerating the commodification of the very affective, emotional, and psychic dimensions of life. In so doing networked social reproduction comes to serve a disciplinary function, as its product is the reproduction of the capitalist social order—and hence the mode of production—itsself (Jarrett 2014). This represents, I argue, social reproduction in a moment of deep crisis, and this contemporary crisis accelerates and expands Tronti's notion of the "social factory," making even our most intimate relations the relations of capitalist production.

The concept of the social factory grows out of Marx's thesis of subsumption, formal and real. Subsumption refers to how the social relations of production intersect and penetrate labour processes. In volume 1 of *Capital* Marx notes that capital subsumes existing labour processes into its accumulative regime—the workers, their work, tools, techniques, and markets become components in the composition of capital and compel workers to submit to wage labour. This process of formal subsumption is mimicked in the contemporary means of communication wherein ubiquitous connectivity subsumes our already existent communications to capitalist processes of production.

But because Marx demonstrated this formal subsumption is not enough for capitalism, social relations and modes of labour must be transformed so that they become thoroughly imbued with the requirements of capital, and thus they become capitalism themselves, in real subsumption. As such the contemporary "command to communicate" (Institute for Precarious Consciousness, 2014) is built into online platforms and their affordances—for example Facebook's status update field of "what's on your mind?" Such communicative imperatives, when issued via networked technologies, decompose the corporeal and transform the embodied

³ As Marx and Engels suggest (1967) the cash nexus refers to the relations constituted by monetary transactions. In *The Communist Manifesto* they note that the bourgeoisie has "pitilessly torn asunder the motley feudal ties that has bound man to his 'natural superiors' and left remaining no other nexus between man and man than naked self-interest, than callous 'cash payment'"(7), which includes direct money transfers but also, in the contemporary moment, both debt and credit.

labour of care into informational nodes in the capitalist production and accumulation processes. As Coté and Pybus (2007) pointed out, social networking sites have built into them the capacity to share in order to “create a suitable digital body” (97) through which affective relations between consumer and corporation can be forged. In such online affective relationships individuals come to be interpellated as productive consumers, and the “exploitation of these rich affective and subjective veins is an ongoing concern of the new corporate masters” (97). Further, this voluntary self-exposure through digital communicative and consumer technologies leads to an impermeable “dataveillance” (Clarke, 1988) opening us up to the “perpetual gaze of virtual others” (Institute for Precarious Consciousness, 2014: np) so that our intimacies and personal choices become fully subsumed into capital’s productive process. In real subsumption “capitalist relations are immanent to the machine” (Thoburn, 2003: 78), and through this we can come to see with greater clarity the social emerging “as a vast plane of capitalized activity” (78). These communicative processes in networked technology deepen and intensify Tronti’s original thesis of the social factory.

Of the social factory Tronti writes:

The more capitalist development advances, that is to say the more the production of relative surplus value penetrates everywhere, the more the circuit production-distribution-exchange-consumption inevitably develops; that is to say that the relationship between capitalist production and bourgeois society, between the factory and society, between society and the state, become [sic] more and more organic. (Tronti, in Quaderno Rossi no. 2, cited in Thoburn 2003, 78)

Tronti’s social factory thesis, though, does not do enough of the work in comprehending the importance and value of unwaged and caring labour to the maintenance of capitalist social order and thus accumulative possibilities. It does not specifically account for the gendered social relations as determinate of broader relations of work, articulated through affective labour, care, or communicative work, and it cannot not comprehend the myriad ways—psychic, corporeal, and affective—that the incorporation of our entire lives into the capitalist circuit may impact us. The social factory thesis does not tell us what sort of crises this variant of capitalism invokes. It was only with the introduction of a feminist notion of social reproduction that we begin to understand the crises spawned by a much-invigorated social factory. While social reproduction holds the possibility of resistance to capital’s command, developing a conception of digital social reproduction attunes us to what possibilities are thwarted or obscured in the contemporary regime of accumulation. As such, the machinic content of Tronti’s social factory thesis can deepen our understanding of contemporary modes of social reproduction, and allow us to interpret this digital sociality as tending towards a particular form of crisis; one necessary to confront in the contemporary moment. In the remainder of this article I will focus on the communicative and networked aspects to an ongoing crisis of social reproduction in contemporary capitalism.

5. Crises of Social Reproduction in the Integrated Circuit

As Terranova (2003) noted, free labour has developed into an important force in the digital economies of advanced capitalist societies. In fact the “value” of the Internet can be traced back to the role of the voluntary unpaid labour of its users (Jarrett 2014). The induction of social media into the daily existence of much of the planet has exacerbated this “free labour” and increased the Internet’s “value” to capital. Advanced sectors of capitalism have translated leisure time into labour time, making work itself “intimate” (Gregg 2011), capitalizing upon interpersonal interactions, turning language and social relationships into moments of work (Andrejevic 2013; Dean 2013), even turning play into profit (Scholz 2014) through our engagements with machines of communication. These acts of digital sociality are suctioned into the accumulative flows of capitalism and in so doing mark new avenues for the commodification of social reproduction. Commodifying our very personal interactions with each other can lead to alienation from the very practices of being alive. In a digital social reproduction life

lived becomes part of capital's accumulative circuit; the energies of thought and communication—Berardi's (2010) "neuropsychic activities"—are put to work at the "rhythm of networked productivity" (np). Human communication, as it moves through and at the pace of the machine, becomes an assemblage of corporeal and virtual. Such communications become integral to surplus value production while thwarting more reflective engagements with each other and the world (Huws 2014). This involves, often, the destruction of social bonds, an accelerated pace of maneuver that precludes thought (Huws, 2014) and the creation of already-mentioned destabilizing affects such as anxiety, panic, and insanity (Berardi 2009; Institute for Precarious Consciousness 2014).

In order to detangle the threads of crisis in digital social reproduction, I will separate the production and reception of communication as distinct yet overlapping components. Recognising that these are deeply interwoven and blurred components, both from the perspective of people and from the perspective of profit, and that Terranova (2000) has already questioned the legitimacy of distinguishing production and reception in Internet-enabled capitalism, I maintain a tension between these components here. I do this in order to untangle two separate but intimately interconnected and dependent arguments regarding social reproduction in networked communications.

By production of communication I am referring to the use of technologies to create and transmit communicative interactions. In discussing production I seek to show how the use of networked communications tethers workers to their labour, making every moment a potentially productive moment and making workers constantly laboring subjects. This contributes to the absorption of leisure time into labour time, and connects to the reception of communication, wherein our communicative endeavours are captured by capital. This happens through the surveillance of communicative labour using digital technologies, capturing information from people at rest and play. It is in the reception of our deepest intimacies and quotidian interactions that we see communication become mobilized as a site for the extraction of capital.

5.1. Producing Communications

The reliance on digital technologies and networked communications grew throughout the neoliberal period, and with it the relentless production of communications at work and beyond. As the digital devices came to dominate work and home life, many human beings in the advanced capitalist economies began to perpetually produce communications, to constantly communicate as part of their paid and unpaid labour. As communications became increasingly virtualized, "free communication by direct voice or touch or glance" was rejected in favour of "electronically mediated conversation" (Huws 2014, 14) both of necessity (at work) and by choice (at home). In this Lazzarato (2006) argues that we become connected to the technologies we use to communicate, simultaneously becoming the device and forming "one single body with the machine" (np). In this, networked communication technologies create a "presence bleed" wherein the boundaries of work and home grow porous. Labour and leisure, body and technology, converge and the purported convenience of the technologies of labour "obscure the amount of additional work they demand" (Gregg 2011, 2). This is a 21st century accounting of Haraway's (1991) cyborg, with all resistant capacities stripped giving way instead to Lazzarato's (2006) "machinic enslavement."

The constant, high-speed dispersion and exchange of information—this depoliticized cyborg—is a structural necessity of contemporary capitalism. To maintain the vast network of global commodity production constant connectivity is required. To secure, obtain, and engage in the tertiary service sector labour that forms the bulk of contemporary global north economies integration with networked communications also becomes necessary. As more labour, even skilled and affective labour, is standardized and routinized, it is increasingly carried out remotely, modularized and translated into information, and necessitates networked communications to carry it out (Huws 2014). The communication that is a necessary aspect of reproducing human beings (as labour power but also as more than that) becomes ever more siloed into the commodifying chains of capital. Because of the specific platform

structures and affordances of networked communications, social interactions become reduced to a series of status updates, likes, picture posts, favourites, and retweets—all standardised and commodifiable. As a consequence, care, solidarity, and love—vital aspects to non-commodified or autonomous social reproduction—instead inculcate our “souls”⁴ to work, Berardi (2009) suggests. Jarrett (2014) notes how clicking Facebook’s “like” button generates “social solidarity” but also guarantees the continued existence of Facebook and the capitalist social relations that underlie it. The caring capacities of individuals are constituted as a resource for surplus value and in this process an act as benign as “liking” a Facebook post becomes part of the “powerful disciplining machinery specific to this historical moment” (Jarrett, 2014: 24). This contributes to flushing out one half of social reproduction’s dual character—the reproduction of labour power swallows the reproduction of human beings—we come to “love” work, abolishing the transformative collective power of love in politics (Davis and Sarlin, 2011).

Alongside networked communications at work and the transformation of love into the production of digital transmissions, increasingly leisure time activities are channelled through digital machines. Leisure time communications—again, including love and care and expressions of solidarity—can be considered regenerative moments of social reproduction, wherein we practice elements of satisfying our own and others’ emotional needs. These communications enable “the basic means with which to create and sustain cooperative relationships” (Brown, et al. 2013: 78). Huws (2014) notes that the increasing prevalence of networked technologies “fractures” our existence and by extension our capacities for autonomous social reproduction. Overall, Huws (2014) argues, corporeal activities of social reproduction (“like putting children to bed or eating a meal” are constantly interrupted by ‘virtual’ ones” (57) like a ringing phone or a pinging text or email disrupting the traditional diurnal rhythms of life. We are perpetually commanded to communicate and hailed to our labour, paid and unpaid. This throws social reproduction both onto the market and also into crisis. Considering the role of social reproduction in digitally-enhanced lived experiences allows us to see the ways the reproduction of capitalist norms operates through “peer relations and not merely as the imposition of structure by a faceless, remorseless capitalist enterprise” (Jarrett 2014, 24).

It is important not to overstate or make total the capitalist imperatives of networked social reproduction. As noted earlier, the Pew Research Centre (2011) confirmed that a cyber-sociality drives and guides our relationships with others—affective bonds of friendship and love travel through the same devices and networks used for and produced by corporations. But the absorption of leisure time, love, and social reproduction into networked productivity aligns with the broader neoliberal mantra of permanent productivity and constant connectivity that the Internet permits. This serves as an obstacle to one half of social reproduction’s dual character, the reproduction of human lives at the foundation of political resistance. The Institute for Precarious’ Consciousness’ notion of the “command to communicate” (Institute for Precarious Consciousness, 2014) is indicative of neoliberal modernity and impacts social reproduction not only at the point of producing those communications, but also in their reception.

5.2. Reception of Communications

With the popularity of digital networks and social media for communications at work and beyond, the command to communicate becomes the command to connect. This connection becomes a perpetual gaze, incorporating our socially reproductive activities into what Elmer (2003) called networked panoptic surveillance. Opting out of gaze means opting out of networked communications, and thus being made incommunicable. In contemporary digitized capitalism, the incommunicable is excluded and erased (Institute for Precarious Consciousness, 2014), and necessarily cannot participate in the reproduction of the social. Such in-

⁴ In his 2009 text *The Soul at Work* Berardi makes clear that the “soul” is not, for him, a theological concept. Instead it refers to the social capacity and creativity of human beings. The soul at work is our social capacity and creativity incorporated into the production of surplus value in contemporary capitalism.

communicability and exclusion results from the ubiquity of networked technologies and the subtle demand that we use them.

Internet connectivity today is widespread—40% of the world’s population has home Internet access, up from 1% in 1995.⁵ Regarding social media specifically, Facebook users numbered one billion by 2012, up from 100 million in 2008 (Mason, 2012), and by 2015 half a billion more users had been recorded. Similarly, Twitter accounts grew from four million in 2008 to 100 million by 2012, and today stand at 316 million.⁶ Estimates suggest that 34% of the world’s population is currently connected through digital networks (Mason 2012). Castells (2012) and Mason (2012) suggest that such a vast communicative landscape has largely positive outcomes, enabling people to “think what they want, act more autonomously, and to get the knowledge they need” (Mason 2012: np). Connecting to others can develop bonds of solidarity and trust, integral aspects of social reproduction, and so the pervasiveness of digital communication networks and connections might seem to strengthen, deepen, and expand socially reproductive bonds. But the ubiquity of connectivity and the command to connect has a dark obverse: refusing to connect can lead to feelings of exclusion, isolation, and desocialisation (Gehl 2013; Langlois 2013), and imposed connectivity leads to a persistent pressure to be available. Disengaging from large corporate social media networks like Facebook impels in many a fear of losing connection with friends and family especially, as noted earlier, as many social media users do so primarily to maintain personal relationships (Pew Research Centre 2011). Further the constant connectivity that social media permits contributes to psychic impacts that thwart the circuit of reproducing the social.

Aside from potential increases in sadness which overuse of social media has been shown to contribute to (Bohannon 2013), we become addicted to the speed of communications, the “constantly changing flows of updates” (Langlois 2013: 52) and the constant renewal of information. This massive and instantaneous flow of information can be liberatory, as Mason (2013) and Gerbaudo (2012) demonstrate, but it can also be threatening. Social media’s main investment is in lives lived (Langlois 2013), in the reproduction of the social, but not for the benefit of reproducing human beings, and rather for the extraction of surplus value from the very living—and reproducing—of those lives.

The building and maintenance of digital infrastructures for the expression of lived experience generates “increasingly detailed information about all of these activities—and more” (Andrejevic 2011, 279). Networked activities of life lived via corporate social media platforms is increasingly monitored, collected, aggregated, parsed, and archived for later use, potentially for purposes of manipulation, value extraction, and control (Andrejevic 2011, 278). Certainly, communities are built through digital networks, and the affective bonds developed through these media forms may counter the subsumption of social reproduction to accumulation and consumption, and may counter the decline of community associated with neoliberal manifestations of the social (Miller 2011). These embryonic online “communities,” though, exist at least partially in the service of data extracted for smoother, more frictionless capital accumulation. The technologies of communication so central to contemporary sociality in the global North and beyond reveal themselves to be, below the surface, technologies of accumulation and surveillance. Living moments—moments of life outside of commodity exchange—become suddenly perceptible to capital; they become visible, surveillable, archiveable. Because the infrastructure of the Internet is largely in the hands of the private sector, a life lived online can be tracked and followed so that social media users’ activities can be “recorded, stored, and eventually used to manipulate them without their consent of knowledge” (Andrejevic 2011, 278).

Technologies of surveillance appear as benign instruments of communication, as the infrastructure of social reproduction in a highly digital world. In this, they colonise an ever-larger proportion of our life-space. The Institute for Precarious Consciousness refers to this

⁵ The International Telecommunications Union defines an Internet “user” as individual who can access the Internet, via computer or mobile device, within the home where the individual lives. Statistics of global Internet use come from: <http://www.internetlivestats.com/Internet-users/#ref-3> (last accessed November 5, 2015.)

⁶ Social media statistics come from: <http://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/> (last accessed November 5, 2015.)

landscape of surveillance technologies in the guise of communicative devices as a “multi-faceted omnipresent web of *surveillance*” (2014: np). The outer carapace of this web includes edifices material and ephemeral: social media platforms like Facebook and Twitter, the US National Security Agency, and the prevalence of CCTV cameras in urban streetscapes, for example, as well as workplace performance management reviews and the prevalent systems of measure (especially in the education sector), the privileges system in prisons, and the classification of school children into vocational or academic streams (Institute for Precarious Consciousness, 2014). Through our engagement in such communicative trajectories, external systems of surveillance and measure become internalised into our very subjectivities and life stories; they become the dominant aspects of the social and we expend emotional and manual labour in reproducing it. We are often complicit in the extraction of information because that information is increasingly integral to the processes of social reproduction today.

As noted this is a process of transforming human beings into nodes of information capitalised upon by private interests, mobilised for the potential productive capacities they contain. It is a capitalist social reproduction, the subsumption of lived experiences to the accumulative process of capital, Panzieri and Tronti’s social factory infiltrating our psyche on a constantly circulating trajectory. This commodified and securitised social reproduction obscures the more liberatory potentials of autonomous social care, solidarity, and unalienated sociality that can flow through the machine. Our heavy investment in a digital sociality that is explicitly part of the capitalist circuit embeds surveillance and commodification into our social reproduction, returning our reproductive labours directly to capital, accelerating what Mariarosa Dalla Costa (1973) and Leopoldina Fortunati (1996) theorised in a less digital time. Not only does this mitigate resistant possibilities of digital social reproduction, but contributes to a broader crisis of social reproduction in psychic terms. If, following the social factory thesis of social reproduction, all of our lives and social relations have become subordinated to capitalist regimes of production, and if this is happening largely through digital networks and social media, the psychic impacts of alienated sociality in these networks manifests as a crisis of social reproduction.

Beyond only the surveillant potential, the velocity, frequency, and ubiquity of our communications contributes to the moments of psychic breakdown Berardi (2009) and IPC (2014) describe. The reception of our communicative moments into the circuit of capital produces an alienation from our very existence as human beings, as communicative creatures outside of our capacity to generate value—a novel experience under contemporary capitalism, Andrejevic (2011) suggests. With no outside to value production, we are no longer simply alienated from our labour in the workplace, but alienated from ourselves as we labour in all aspects of our communicating lives. The investment in highly mediated lives and the anxiety or panic that this brings thwarts many resistant possibilities.

The collective Institute for Precarious Consciousness (2014) note that the command to communicate via the perpetual gaze of social media platforms, technologies, and regimes limits our capacities for solidarity, warmth, and care. Similarly, Dean (2008) argues that the constant processing of the self in online spaces leads to an abnegation of politics. It is the intensity of circulating content over the terrain of a communication-driven capitalism that “forecloses the antagonism necessary for politics” (Dean, 2008: 103), and a lack of human connection eviscerates the solidarity and trust necessary for the risk of political antagonism. The fixation on connectivity, productivity, and speed in communicative interactions creates a “tele-present” world: a world preoccupied with the ever-changing perpetual present moment which Virillio (2006) argues obfuscates long term visions of change, and grassroots strategizing and organising. Berardi (2009) argues that capital’s fixation on extracting value via communications produces subjects incapable of solidarity, foreclosing on the possibility of collective politics. Unlike in previous cycles of struggle, wherein communication aided the autonomous, liberatory social reproduction of rebellious subjects, much communication today securitised and commodifies social reproduction. The outlook, it would appear from these arguments, is bleak.

6. In Conclusion

It is through understanding the means of communication as an aspect of social reproduction, and as contributing to crises in this realm, that we can begin to push back against this tide, to mobilise and adapt struggles for autonomy and to liberate our communications from channels of capital and control. Hardt and Negri in their *Declaration* (2012), conclude that in communicative endeavours “nothing can replace the being together of bodies and the corporeal communication that is the basis of collective political intelligence and action” (18). Mason (2012) and Gerbaudo (2012) noted the importance of colluding online and offline strategies in the successes of the Egyptian mobilisation to Tahrir Square. The role of the digital in subsuming our social relations and personal intimacies to the accumulative bloat of capital is not a fixed certainty. Understanding communication and the technologies that enable and enhance it as an integral component of social reproduction, and of its crisis, aids in an understanding of the crises of the present moment and the possibilities of resistance.

The crisis of social reproduction that passes through digital networks is part of capital’s machinic decomposition of the proletariat, but properly understanding this can allow us to throw wrenches in the works. It can allow us to develop human-machinic assemblages of social reproduction—digital modes of communicating with bodies *and* technologies that enhance the pleasures of being together, that expand autonomy, erode atomisation, and challenge capital’s ongoing subsumption. This requires a de-centring and de-fetishising of digital media both in our lives lived, and in our practices of resistance to capital. We must begin to understand networked media as an extension of *outgrowth* of the social as much as a determinant force *in* the social, denying networked communicative technologies an inherent power. With these caveats we can instead begin to imbue networked communicative technologies with the politics and processes of liberation and autonomy, and develop modes of reproducing the social that diminish the reproduction of labour power and enhance the reproduction of autonomous human beings. The task is to begin that now.

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