Affect, People and Digital Social Networks

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Introduction

What constitutes an affect cycle in digital networks? How is it enacted and what are the consequences for individuals, for digital data and for the society that comprises both? Further, what is the relationship between affect and emotion, and what is their relationship with digital networks? Is it possible for an affect cycle to be established between people and digital networks, between people via digital networks and between digital networks themselves? By examining recent affect theory in combination with Simondon's theories of technical evolution and other theories of interaction and knowledge, I will define the nature of affect as it emerges through the cycle of interaction between people and digital networks. I trace these cycles through and between the overdetermined, underexamined sites of interaction across digital networks in order to identify who and what are participating in the capture and escape of affect. I also show how this is facilitated and what is changed during, and as a result of, these affective interactions. Using a deep understanding of the technical workings of digital networks, combined with receptiveness to the affective potential of emotional agency in our digital world, I situate human affective practice in the uneasy environment of algorithmic digital corporate networks.

At the core of these networks needs to be an understanding of the way in which digital networks work, technically and socially. With the onslaught of everything, everywhere, in real-time, the mass amount of information that floods our networks is meaningless until it surfaces, stored as it is in a manner indecipherable to people until it is passed through filters. Filters reign as contextualizers, modulators, and curators of data. Peoples' digital screens – once wildly free of filters – are now dominated by capitalist constructs which are designed to filter based on advertisers' behalf while being presented as empowering tools in the service of every individual. Age, gender, place, and likes compile targeted content purified for our unwitting consumption. Culture is being curated algorithmically and on-the-fly in order to create virtualized, quantified, versions of individuals with all possibility for change removed. These parodies of the individual are created in order to have them both produce and consume the same product. As Eli Pariser (2011) puts it in The Filter Bubble, these filters create a "kind of informational determinism in which … [y]ou can get stuck in a static, ever narrowing version of yourself – an endless you-loop." (p, 14) What are the consequences of this, for individuals, for their society and for the digital networks that increasingly have come to define both? To begin to answer these questions, we look first at the relationship between emotion, cognition, affect and technical networks.

Affect, Emotion and Cognition

Affect theory attempts to maintain a distinction between affect and cognition, with some affect theorists equating affect with emotions, but classing them as pre-cognitive or non-intentional events over which we have no conscious control. (Clough, 2010, p. 206) Other affect theorists, notably Brian Massumi (2002), equate emotion to a *post facto* cognitive rationalization of a pre-cognitive affect. The distinction between affect and cognition arises, to a certain extent, from findings in neuroscience that pre-cognitive responses govern humans' most "basic emotions," and "occur independently of intention or meaning." (Leys, 2011, p. 437) Thus, affect theory holds that there is a gap between the cause of an affect and an individual's interpretation of it. Further, the cause of the affect is not what an embodied emotion approach would see as the object of an intentional state governed by ideology and desire, rather it is a generic trigger for some kind of built-in physiological response that is devoid of meaning, and prior to any cognitive intention. (Leys, 2011: 438; Tom-

kins, 2008: 137) This mechanistic view of affect therefore raises questions about the relationship between ideology, emotion and affect. This is of interest in relation to digital networks for several reasons, not least of which is related to questions of the nature of affect as it relates to digital entities, along with other more obvious questions around the role of emotion in the uptake and use of digital social networks.

One of the problems with separating affect and cognition is that it has the potential to replicate a Cartesian mind/body duality that most affect theorists would actually set out to dissolve, as Leys (2011) is keen to point out, or to "a return to the subject as the subject of emotion." (Clough, 2010, p. 207) Eve Kosofsky Sedgwick (2003) noted,

> But of course it's far easier to deprecate the confounding, tendentious effects of binary modes of thinking - and to expose their often stultifying perseveration - than it is to articulate or model other structures of thought. Even to invoke *non*dualism, as plenty of Buddhist sutras point out, is to tumble right into a dualistic trap. (p. 2, emphasis in original)

Inherent in a privileging of pre-cognitive affect is the denial of rational agency in the formation of a subject or, in an extreme projection of the 'basic emotions' model, that change is not even possible. This is clearly not what affect theory proposes, but it is useful to stay attentive to any conflations or elisions that may result in contradictory or nonsensical conclusions formed in the haste to reject psychoanalytical readings of emotions. This is especially true when a cultural theory, like affect theory, tries to balance itself between a robust critique of positivist scientific findings and actually using some of those same findings to reinforce its own theories. (Massumi, 1995; Massumi, 2002) The potential paradoxical pitfalls along the way to affect theory are many, and as well as positivism, they include mechanistic determinism and transcendent or teleological vitalism. There is also a noticeable scarcity of discussion of emotion in the canon of affect theory as it currently exists, which possibly arises from an underlying desire to de-anthropocentrize theory and create a distance from psychoanalytic and poststructuralist techniques.

If such unproductive problems result from a stubborn insistence on the priority (or at least 'priorness') of non-cognitive affect over cognitive ideology or emotion, along with an accompanying confusion over which camp emotions belong to, perhaps it is better to take the attitude of proto-affect theory philosopher William James (2008) who suggests, in line with Sedgwick's ambivalence, that this emotional undecidability is entirely appropriate for human experience of emotion in the world as well as for a philosophy that attempts to resist simple binaries. Viewing emotion as the human response to affect neither *pre*scribes emotion as a response to affect nor *pro*scribes non-human entities from engaging with affect. I am going to suggest that this open approach may also serve as an attempt to understand the complex assemblage of relationships between physiological and psychological affects, emotions, digital networks and time, by leveraging the thought of French philosopher Gilbert Simondon.

Ontogenesis and Individuation

Simondon's philosophy of ontogenesis and individuation was very influential on Gilles Deleuze, (Iliadis, 2013) who has been himself very influential upon affect theory. It is Deleuze, along with Guattari, Spinoza and Bergson, who Patricia Clough invokes to envisage a new concept of a body that is expanded through digitization and informationally open to its environment. In this, Clough is echoing similar philosophies to Luciana Parisi, Rosi Braidotti and, most notably, Anna Munster. Such philosophies are inspired by Deleuze's concept of the virtual and his reading of Spinoza's definition of bodies as 'compositions of relations' (Deleuze, 1988, p. 124) and therefore of affect that may not be reduced to physical interactions, in apparent contrast with contemporary neuroscience. Much of Deleuze's thinking about the virtual/actual continuum and becoming is heavily influenced by Simondon's ontogenetic philosophy of the metastable pre-individual, transduction and individuation. Take, for example, this passage from Deleuze's *Difference and Repetition* (1994):

> All individuality is intensive, and therefore serial, stepped and communicating, comprising and affirming in itself the difference in intensities by which it is constituted. Gilbert Simondon has shown recently that individuation presupposes a prior metastable state - in other words, the existence of a "disparateness" such as at least two orders of magnitude or two scales of heterogeneous reality between which potentials are distributed. (p. 246)

Later in the same book, Deleuze (1994) puts this concept - of individuation as an ongoing Simondonian procedural resolution of disparate entities within a metastable environment - in the context of Nietzsche's Dionysian will to power that recognizes the concept of the individual as abstract, replaced in actuality by individuation:

> What cannot be replaced is individuation itself. Beyond the self and the I we find not the impersonal but the individual and its factors, individuation and its fields, individuality and its pre-individual singularities. (p. 321)

This is important because I argue how the digital capitalists that operate the world's most popular social networks use an understanding of the Simondonian *transindividual* nature of digital networks to exploit pre-digital beliefs of individuality and agency amongst their users in order to have their users both produce *and* consume the social network companies' product without participating in either the profits thereby produced or the opportunities offered by an opening to the transindividual operating possibility of digital networks. This one-sided relationship is the cause and the emblem of what we might call the *anxiety of the digital network*. Understanding the transindividual possibility of digital networks also clarifies Simondon's understanding of affectivity and emotions, which is quite similar to Spinoza's (1996) understanding of affect as a continuous variation in powers to act, and therefore of understandable appeal to Deleuze.

Transindividual

As Muriel Combes (2013) explains, Simondon's 'transidividual' appears as "a relation interior to the individual (defining its psyche) and a relation exterior to the individual defining the collective: the transindividual unity of two relations is thus a relation of relations." (p. 26) For Simondon, an individual is always an individuation in process, in reciprocal relations with its milieu, both emerging from and carrying within itself the pre-individual or metastable environment. The individual is therefore a multiplicity of individuations, or what Simondon calls a series of individualizing individuations, meaning that the individual, such as it can be said to exist, is always a continuation and reciprocation of the vital or physical individuation that brought into being this individual.(Combes, 2013:)[1]It is easy to apply this model to the topology of digital data and digital networks. Digital data can be said to exist only as a generic continuum that obviates the differentiation of media and bears no indexical relationship to its ostensible (digital or non-digital) source. (Nash, 2013; Kittler, 1999) Digital data can only be said to appear in the world, as an individuating digital entity, when it is modulated into some sensible display state, be that audible, visible or some other sensible state of display. (Nash, 2013) For digital data to be modulated into such a display state requires a set of protocols which are encoded into all of: the set of digital data being modulated; the operationalized and reciprocal sets of digital data 'doing' the modulating (i.e., software, operating system, digital networks); and the associated milieu within which all of these sets of digital data individuate (ie, *the digital* in the world.) Digital data in its generic, undifferentiated state can be seen as a parallel with the Simondonian pre-individual, a metastable environment from which an entity is individuated by modulation through protocols, or what Simondon would call the resolution of disparate fields, where both the individuated entity and the modulating protocols create and exist within an associated mi-

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[1] Note that for Simondon, organic and inorganic - vital and physical - being are simply orders of one another, thus demonstrating the genuinely non-anthropocentric thought of a philosopher who was nonetheless deeply interested in human society, emotion and imagination.

lieu, all the while carrying within themselves the digital pre-individual. This profoundly indeterminate and interactive nature of digital networks, where no individual entity can really be said to exist except in the most transitory and procedural fashion, is what allows social networks and digital capitalism in general to thrive.

While it is easy to see how Simondon's ontogenetic model of individuation and becoming applies to digital networks and even to human society, it is perhaps not so easy to see how it might apply to individual human lives. This is where Simondon's concept of affectivity and emotion comes in. It requires an understanding of the process of being in the world as a constant reciprocal becoming, where everything is constantly reconstituted in relation to everything encountered within, and as a constituting element of, the environment. This makes for, as Combes (2013) puts it, a "subject wherein relation to the outside is not something coming to an already constituted subject from without, but something without which the subject would not be able to be constituted." (31) This means that "psychic reality is not closed upon itself" (Simondon, 2005, p. 167, cited in Combes, 2013: 31) and rather than attempting to understand the world as a collection of individuals with interior lives trying to interact with each other, Simondon sees the *affective* as the 'center of individuality because affectivity is the relation between the individual's relation to itself and its relation to the world, which relation is both interior and exterior to the individual. In other words, "our being is not reducible to our individuated being." (Combes, 2013, p.31). But what happens when, as in digital social networks, beings are forced to reduce themselves to their individuated being exclusively?

Anxiety[2]

For Simondon, (2005) a subject is "individual and more-than-individual; [a subject] is incompatible with itself." (p. 253, cited in Combes, 2013, p. 32) This tension, for Simondon, may only be resolved by an opening to the transindividual and transitory nature of reality. However, it is understandable that a subject may attempt to resolve the tension by doing the opposite, by turning inward and looking for an "intrasubjective" mode of relations that reinforces a static sense of individuality. (Combes, 2013) For Simondon, this attempt can never succeed. But it is an attempt that has, to some degree, come to define the contemporary human experience, underlying as it does much of the Western liberal value system, especially around concepts of individuality, privacy, security and property. It is this that the operators of digital social networks are able to exploit, encouraging users to continue their attempt at an intrasubjective rationalization of the world, in order to keep producing and consuming the product that runs the social networks, which is in fact anxiety. Anxiety is the name that Simondon gives to the feeling of "unbearable invasion" a subject may feel when affectivity "makes the subject confront a share of preindividual within it which exceeds its capacity for individual absorption" (Combes, 2013, p. 32) In other words, anxiety is what results when the subject rejects its implication with preindividual being in an attempt to maintain a sense of individuality. This anxiety, which for Simondon is a "disastrous substitute for transindividual relation," (Combes, 2013, p. 33) is precisely the commodified product of digital social networks, a commodity which is produced *and* consumed by the very sufferers of the anxiety, corralled into an endless

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[2] I quote here Jon Roffe's translator's note to Igor Krtolica 's *the Question of Anxiety in Gilbert Simondon (2012)*: "Throughout, the word 'anxiety' and its cognates translate the French angoisse. This word has a complex place in twentieth-century French thought, playing an important role in both psychoanalysis and existentialism. It bears an analogous range to the German Angst, which is at the root of both the Sartrean use of angoisse (whose ultimate heritage is Kierkegaard's Angest) and the Lacanian deployment of Freudian concepts. (To recall, the title of the 1926 'Hemmung, Symptom und Angst' is translated as 'Inhibitions, Symptoms and Anxiety'.) Unfortunately, as these examples illustrate, there is no single word in English to convey the full scope of the French. Furthermore, Simondon's inter-est in angoisse cannot be reduced to either of these perspectives, both of which he explicitly criticizes. The choice of 'anxiety' is meant to avoid the maudlin connotations of the English 'anguish' – at the very least, we should be wary of reducing 'anxiety' as it is treated here in terms of any superfi cial or secondary affect, a point amply attested to by the author – and to keep in line with the forthcoming translations of Simondon's work." (Roffe, 2012, p. 88)

anxious production cycle for which the only recompense is more anxiety. We might call them (us) *digital anxiety slave workers.*

Digital Networks and the Anxious Subject

Those who design and run these networks, on the other hand, are able to do so only through an intrinsic, perhaps intuitive, understanding of the transindividual nature of digital networks as a plastic, generic medium that has affective agency only when modulated into a display state, in other words when it wholeheartedly participates in the destruction of individuality through an understanding of the preindividual being that is both interior and exterior to any given individuation. An understanding of digital data as generically manipulable according to arbitrary modulations is what allows the increasing pervasiveness of algorithmic automated agency within these networks, such as the "panoptic sort" that Christian Fuchs (2014) identifies as underlying the targeted advertising that now permeates and drives digital social networks. All such modulations may facilitate affective interactions variously between people, between people and digital entities, and between digital entities. (Morozov, 2013) The site of the capture and escape of affect (Massumi, 2002) in these interactions remains procedurally stable: the curious virtual space established amongst people and digital networks, and yet the affects are afforded agency in both non-digital and digital space.

The modulations facilitating the technical operation of the network conform to the barest engineering definition of communication, where "semantic aspects of communication are irrelevant to the engineering problem," (Shannon, 1948, p.1) but digital data is constantly modulated into display states legible to other modulated digital entities (i.e., algorithms), in order for the semantic aspects of the modulated data to be inspected for emotional content that best perpetuates and encourages anxiety. When Geert Lovink (2013) says, "there is surprisingly little 'différance' at work here. In that sense these are not postmodern machines but straightforward modernist products of the 1990s wave of digital globalization turned mass culture," (p. 12) he is actually only identifying the cynical user-facing appearance of social networks. Such a user-facing presentation is necessary for users to continue in the cycle of producing and consuming anxiety, whilst behind the presentation lies an intrinsically digital-era understanding of the generifying effect of the digital.

Attempting to hide in plain sight, those who run social networks make public gestures towards open standards and technologies, but in fact would face a disaster were their users to actually avail themselves of these open technologies, since it would involve an operationalization of a transindividual understanding of digital networks which would obviate the need for a centralized authority directing emotionally instrumentalized modulations. Bernard Stiegler (2010) recognizes this in *For a New Critique of Political Economy*:

> ... the interface between the technical system and social systems does not operate
> via the economic system, but precisely through those social systems which are
> bearers of the knowledge [*savoirs*] which society holds. Such forms of knowledge
> and their valorization are the only possibilities we have for struggling against the
> production of information *without* knowledge. (p. 129, emphasis in original)

Unfortunately, contemporary digital social networks work against such a manifestation, instead facilitating the production and consumption of anxiety. They do this by manipulating a system that on one side recognizes the subordination of the economic to the social and transindividual; but on the other side uses this understanding to create and exploit the economic value of subjectivized individuals engaged with a digital network. Such a two-facing or bivalent structure is entirely appropriate to, indeed enabled by, a Simondonian model of ontogenesis, and illustrates how such a model may be politicized by any ideology that so chooses; in the case of contemporary digital social networks, this tends to be an extreme libertarian ideology that can justify its own cynicism in playing emotional individualizing off against the transindividual. This is the very definition of contemporary digital capitalism. Exploiting the existing model of capitalism as "the organization of calculable anticipations" (Stiegler, 2010, p. 91), digital capitalism virtualizes commodity value in order to deal

entirely in anxiety, molding anxiety into a faux-transindividual system by using emotional keywords like *open*, *freedom*, *connected* and *empowerment* which in fact incessantly resubjectivizes users in an intrinsically reticulated production and consumption cycle. This new kind of production, where the workers pay for their own tools and work solely for the right to consume what they have produced, is seen as radically digital in its conception and execution, even compared to previously radical virtualizing moves, such as futures markets, because it removes all need for any kind of reference point, including time. All that matters, in terms of Stiegler's calculable anticipations, is whether someone *likes* something, with both the 'like' and the 'something' being immaterial and transient. Obsolescence is rendered obsolescent, because all products become obsolescent the moment it is produced, consumed by another production. This radical virtualization of older concepts of speculation, which require time, bewitches these older forms into accepting that the digital social networks have value *instantly* within the old value system even though this is nonsensical. Such is the power of information without knowledge, as Stiegler (2010) might put it. Even more though, seen from a Simondonian perspective, it illustrates the radical ability for human/digital assemblages to modulate new entities from previously disparate fields. Maurizio Lazzarato (2014) puts this in Deleuze and Guattari's terms when he says that "it captures and exploits something more profound and transversal to society on the whole; the process of singularization and production of new modes of subjectivation whose basis is desire," where desire "is not the expression of human subjectivity; it emerges from the assemblage of human and non-human flows, from a multiplicity of social and technical machines." (p. 51)

Affect and Modulation

This view of the potential for people and digital networks to modulate outcomes for all in this milieu could imply the production of positive outcomes beyond old-fashioned zero-sum games of profit and growth, and such an optimistic outcome is entirely viable given our Simondonian understanding of technical evolution, and where all life (vital and physical, I.e., human and digital) acts within an understanding of the transindividual, where every modulation is a new individuation, an individualizing individuation as Simondon would put it, that recognizes the pre-individual that is implicated within and without the modulation. Anna Munster (2013) suggests this may already be occurring through the movement of affect on digital networks. Munster uses Deleuze and Guattari's concept of the *refrain*, which she explains as "a composition of precepts and affects that catches on," that "enfolds affect onto itself, in the process etching the first contours of expressivity," that is able to multiply across networks. Distinguishing the refrain from a simple loop, she suggests that this multiplication of affect can create alternative networks of disaffected subjects expressing joy in the transindividual nature of the international network, which, in such a case, may be considered a genuinely *social* network. (Munster, 2013) She then goes on to show that it makes no sense to think of *affect* and *networks* as separate, that in fact they are immanent to each other, using Guattari's characterization of affect to suggest that it is affect that "facilitate[s] the passage between one thing and the next." (p. 107) Later in the same book, she describes it as "a force of relationality that is not yet full *communication,* in which process, movement, and circulation take precedence, albeit at differential speeds." (p. 125) In this sense, could affect be thought of *as* modulation?

This would be in line with Eve Kofosky Sedgwick's reading of Silvan Tomkins' analysis of affect, quoting him describing "the role of the affect mechanism as a separate but amplifying co-assembly." (Sedgwick, 2003: 100) Sedgwick also shows how Tomkins displayed an attitude to the human/machine assemblage that was remarkably similar to Simondon's, referring to Tomkins' "habit of layering biological with machine or computer models," (101) while refusing to reduce such thinking to simplistic models that equate the digital to the machine and the analog to the human. Sedgwick investigates this complication of the digital and the analog, the human and the machine, and describes a constant back and forth between the registers of digital and the analog. This is what Simondon would call transduction, or "recurrent causality," (LaMarre, 2013: 95) and describes exactly what I am calling modulation between digital data and display states. Sedgwick (2003) quotes Anthony Wilden (1970) as saying,

> The question of the analog and the digital is one of relationship, not one of entities. Switching from analog to digital (and vice versa) is necessary for communication to cross certain types of boundaries. A great deal of communication - perhaps all communication - undoubtedly involves constant switching of this type. (p. 101)

Sedgwick then attempts to show that the propagation and dissemination of affect is just such a recurrent cycle of modulation between disparate fields in a way that is exactly analogous to the cycle of modulation between digital data and states of display.

Digital Social Networks as Abstract Machines

Each modulation is bivalent, bringing together two disparate fields, a synthesis of which must result in sensible display in order to become a participant in another bivalent modulation of disparate fields and so on. According to Deleuze (1994), Simondon's view is that the two disparate fields must share some kind of overlap, where Deleuze holds that *any* disparate fields may be modulated. In the case of contemporary digital social networks, the disparate fields can be seen as the social and the speculative economy. In Simondon's (1958) terms, we must therefore think of contemporary digital social networks as abstract machines, since they are not *autocorrelative* of these disparate fields:

> There exists a primitive form of the technical object, its *abstract form*, in which each theoretical and material unit is treated as an absolute, with its own intrinsic perfection, which must be constituted as a closed system in order to function. (p. 20, cited in Chabot, 2003, p. 13)

Although digital capitalists will often characterize digital social networks as a concrete machine, one that has gained autonomy, in fact it requires constant human supervision to keep the two fields of the social and the economy forcibly correlated, by subjugating the social to the economic. This is the disingenuous logic of digital capitalism, where the putative purpose, ie, the valorization and empowerment of the individual (what we might broadly term the *selfie culture*), seductively masks the genuine goal of quantifying individuals into demographic clumps in order to advertise products or services that have been designed for just such clumps. (Fuchs, 2014) If digital networks virtualize and balkanize the individual into a multifarious, temporally, physically and psychically asynchronous distributed agency, the imperative of digital capitalism becomes to revirtualize that distributed agency back into a reconstituted individual in order to advertise to it. To achieve this, digital capitalism builds a distributed empire by using thoroughly contemporary post-convergent algorithmic means to cynically, emotionally, appeal to pre-convergent notions of privacy and individualism in order to force an individuation from unwittingly distributed agents, then beguiles these virtualized individuals into ceaselessly producing the content that manufactures the very demographic clumps that are then advertised to. At the same time that the cult of individual empowerment is promoted through the networks of digital capitalism, the only measure of success that is held up is necessarily an advertiser-friendly quantitative one of generifying demographics, the bigger and more generic the demographic group the better, 'it's gone viral' meaning millions of individuals are watching the same thing, retweeting, reblogging and reposting the same thing. "Yes, we are all individuals!" (Monty Python, 1979)

Performing Digital Social Networks

We now understand the generifying effect of the digital, where all semantic and indexical relationships between digital data and any 'real world' phenomenon is obliterated in the digitization process so that it is only possible to speak of a 'digital entity' in terms of how it may be modulated from its generic state as digital data into a display state that appears in the world, and this must happen every time any activity occurs on the digital network. Art critic and philosopher Boris Groys (2008) understands the *performative* consequences of this when he says that in the digital era visual art

becomes performance art. Groys is limited by the intellectual baggage that is carried by the very concept of art as it inheres in the heroic/romantic European tradition, so he is unable to identify the absolute generifying operation of the digital and therefore attempts to salvage some of the differentiation and indexicality of pre-digital media by (very contestably) repurposing Walter Benjamin's famous *Work of Art in the Age of Mechanical Reproduction*. Nonetheless, he is able to relate the idea of performance to modulation between digital data and display, and this is Groys' crucial contribution to this discussion. Groys knows that all performance involves a modulatory relationship that allows, or even requires, the participants to reflect on the nature of the performance whilst engaging in or with that performance. He also realizes, albeit in a roundabout manner, that the modulation process from digital data to display requires acknowledging the displayed entity (for Groys, an image) as "dissimilar to itself" (p. 86) and therefore requiring some kind of curation. This is an important point in relation to the performance of the individual subject on digital social networks, and how such performance is curated by those who design and run these networks.

Sha Xin Wei (2013) explicates the connection between performance and Simondon's ontological privileging of individuation over the individual (the process over the product). He recognizes that every modulation is a performative process where the implicit values of the modulation protocols are enacted. Such values, at least in the contemporary digital era, are necessarily socio-cultural, since they are enacting the intentions of those who designed the protocols, either human or machine. For instance, there is no reason that a certain set of digital data should be modulated into display as an image, other than the socio-cultural expectation that such data was *intended* to be modulated so. Sha (2013) recognizes in this a privileging of the performance over the "instructions to the maker for use in the making." (p. 45) These notated instructions are a "partial action" that is "complemented by the corporeal action of the performer and perceiver." (p. 46) We see here the strong analogy with Simondon's understanding of a technical system, as well as how it applies to the data-modulation-display model of digital networks.

In the case of digital social networks, we can see these instructive notations as primarily consisting of the technical construction (software, servers, networks, clients) and 'panoptic sort' (Fuchs, 2014; and see above) algorithms. Further, the algorithms, in 'deciding' what should appear in a user's stream, continue to participate in the performance, but in a more privileged role than other performers. This more privileged role is perhaps like a conductor but, since a conductor gives too much freedom to individual performers, the role is more that of a curator who has decided to micro-curate every moment of a live art performance.

When an individual user engages with a digital social network they are actually *receiving* a highly curated performance in which they are expected to participate after accepting highly restrictive terms weighted in favour of the curator.[3] This curation process demonstrates the intrinsically Simondonian understanding of digital networks that digital capitalists enact. Of course, all participants in any performance are expected to accept a more or less narrow set of parameters in order that a performance may individuate from the disparate performers and their environment. However, users of digital social networks agree to be subject to the curating conduct of the panoptic sort while they perform their part. Ostensibly each performer has an individual agency similar to any performer within a group, responding in realtime to the performative acts of other performers in the group, and such agency is often invigorating and empowering, since an individual performer is facilitating and participating in a transindividual experience, influencing and being influenced all at once. In the case of digital social networks, though, prewritten algorithms like the panoptic sort are in fact 'deciding' what aspects of the overall performance any individual performer will experience, thereby significantly constraining their performative ability.

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[3] See, for example, Facebook's "Information we receive and how it is used" section of their *Data Use Policy* at https://www.facebook.com/about/privacy/your-info and discussion below about the so-called Facebook emotion experiment.

Sha (2013) notes that the shift from static to realtime (ie, 'on the fly') computation brought about by the massive increase in volume, speed and power of digitally networked devices "enables, but does not guarantee, a 'performative turn'." (p. 49) Talking specifically about sound or musical performance software, but in a mode applicable to a generalized concept of performance in the digital era, Sha identifies "four shifts of perspective", of which the second, "from tools of analysis to tools of performance" is of most interest here. (p. 52) Sha identifies what he considers a "qualitative shift in how [learning algorithms] are organized into instruments for real-time performance." (p. 53) In fact, he is identifying a classic Simondonian technical evolution towards the concrete.[4] The learning algorithm is integrated into a performance algorithm that performs as it learns, individuating from two abstract machines (I.e.,, a learning algorithm and a performing algorithm) a machine that is approaching a concrete state. This is the process that digital social networks employ, except that instead of the general attitude displayed by most realtime performance software, that of deferring to human performers in times of doubt, digital social networks tend to privilege the 'decisions' of the panoptic sort algorithm. This reflects the Janus-faced nature of the digital capitalists' engagement with the process that ensures a concrete state is never achieved: on the one side, giving over to the transindividual tendency of digital networks; on the other, algorithmically manipulating a subjectivized invidual model to micro-manage any given performer's input and output. This maintains the system as a collection of abstract machines.

Sha's (2013) identification of the shift from computation as representation to computation as "part of living expression - i.e., a technology of performance" (p. 68) is crucial to the ongoing performance of digital social networks but, *contra* Sha, so is the storage and retrieval of information, but this is true in the performative sense as well, in that modulation between data and display must constantly be performed, but also in that, once displayed as information, it becomes reincorporated into performative algorithms. Digital social networks are going ahead with facilitating a performance paradigm that seriously expands on notions of co-presence, continuousness and embodiment in space and time in order to create a 'collective' that neither Sha nor Simondon would define as such. And, while Sha (2013) usefully highlights the philosophical similarities between Spinoza, Whitehead and Simondon, contemporary digital social networks show that, unfortunately, a "move from a concern about values of objects to concerns about value-generating or value-signifying processes" (p. 93) does not necessarily mean a concomitant move towards a collective ethics because digital capitalists have demonstrated an energetic willingness to cynically manipulate the "ethical dynamics from affective intensity." (p. 105)

Giorgio Agamben (2013), who, like Groys, also uses a contestable reading of Benjamin's essay to introduce a nuanced concept of performance (and who also primarily equates art with the visual), says that images positively tremble with a saturation in time, "almost to the point of exploding." (p. 4) After quoting the video artist Bill Viola who says that "the essence of the visual medium is time," (p. 5) Agamben goes on to relate time and memory to the image as performative in a manner that locates the imagination in relation to both affect theory: "the void that gapes between sensation and thought," and Simondonian psychic and collective individuation: "between the multiplicity of individuals and the uniqueness of the intellect." (p. 55) Using his understanding of Benjamin's *dialectical image* as an "unresolved oscillation between estrangement and a new event of meaning," (p. 29) Agamben talks of the encounter with images as a performative process analogous to the modulation from data to display, where images exist in a state of "'unpolarized latent ambivalence'", a "zone of creative indifference" until a performative "encounter with a living individual" allows them to "obtain polarity and life." (p. 35) Agamben calls this the "afterlife of images" (p. 24) where "what has been comes together in a flash with the now … to form a constellation." (p. 26) This performative paradigm is quite similar to Groys' performance of the image and, of course, modulation, where terms of original and copy are meaningless, and where an entity can only become by modulating into display and yet can inhere in time and put "an instant from the past in re-

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[4] It is suprising that Sha does not identify this, since he explicitly draws on Simondon's philosophy several times elsewhere in his book.

lation to the present." (p. 32) Agamben identifies this "indiscernible blend of originariness and repetition", a being whose "origin is indissoluble from its becoming," as time itself, thereby identifying the fundamentally performative nature of memory and imagination.

In terms that can relate such time-based performances in a very concrete way to this discussion of the workings of digital social networks, Sedgwick (2003), acknowledging the different ways in which the concept has been promulgated, disowned and propagated, says that the concept of 'performativity' mediates the extremes of "the *extroversion* of the actor (aimed entirely outward toward the audience) and the *introversion* of the signifier." (p. 7) This is the Simondonian process on which digital social networks operate, where production and its consumption are performed 'in real time' by extroverted introverts, or introverted extroverts, the distinction is meaningless within the network, since all that matters is that all performances are conducted and monitored algorithmically in order to solicit more performances of productive consumption.

Collective Emotion

We have seen that a cynical manipulation of modulation processes that underlies the operating architecture of digital social networks is what helps prevent subjects from individuating within the transindividual via those digital social networks. What role does emotion have in this construction? For Simondon, "the solitary individual being, putting itself in question, cannot go beyond the limits of anxiety – an operation without action, a permanent emotion that cannot resolve affectivity." (Krtolica, 2012, p.76) Contemporary digital social networks enact on the individual subject a doubling over of this 'emotion that cannot resolve affectivity' by requiring subjects to operate at the very site of modulation where their operations could transduce what Simondon calls *psychic and collective individuation*. Muriel Combes (2013) tells us that Simondon is a "thinker of the resolution of a crisis of humanity in its relation to the world of technics," (p. 57) a crisis that emerges from a misunderstanding that maintains a separation between culture as a domain of meaning, and technology as a domain of utility. For Simondon, this dichotomy explains how workers in a Fordist industrial paradigm were able to be kept alienated from the overall production process whilst contributing to it, because the regulation of the machine is seen as a cultural act qualitatively different from the technical act of operating the machine. This paradigm has been carried over into digital social networks. However, because the character of the workers' (i.e., social network 'users') engagement with the production process is ostensibly much closer to Simondon's (2012) ideal of a "social and economic mode in which the user of the technical object would be not only the owner of the machine but also the one who chooses and maintains it," (quoted in Combes, 2013, p. 71) digital capitalists cynically manipulate the emotive language of engagement in an attempt to trick such workers into believing they are regulating the machine instead of simply operating it. Such language includes the emotional keywords discussed above as well as the disingenuous (at best) attempts to conflate popular democratic movements like Arab Spring and Occupy with digital social networks. This is partially the legacy of the digital Utopianism of the 1990s, itself born in a heavily libertarian intellectual atmosphere of disingenuously *techno-hippie* solutionism, that regularly conflated Internet access, democracy, freedom and individualism whilst eliding serious issues of economic elitism and heterosexist racism.

Such manipulating of emotions relies heavily on exploiting users' pre-digital conception of alienated individuality within a hierarchy, which Simondon understands as constituting the very grounds for contemporary analysis of technology and culture, thereby allowing a perpetuation of a pre-digital understanding of technology instrumentalized in the service of profit-driven hierarchy. Simondon (2005) is very clear in his appraisal of this arrangement: "It is essentially the operation commanded by the human and executed by the slave." (quoted in Combes, 2013, p. 72) On the user-facing side of the digital social network, emotional manipulation is evidently what allows users to keep anxiously producing and consuming without self-consciously, or collectively, identifying their position as one of slave. The gesture towards the collective sensed by the subject in the digital network is

turned back on itself through denial of access to the regulatory operation of that network, forcing an impossible intrasubjective attempt to unite the individual with the pre-individual within the individual. What is produced, and consumed at once, is simply more anxiety. The collective is never individuated within a digital social network because, according to Simondon (2005), there is only a "collective to the extent that an emotion is structured." (quoted in Combes, 2013, p. 51) In other words, the collective is individuated as emotion is structured across multiple individuals, and this is never allowed to happen in digital social networks.

Whilst the entire technical and cultural architecture of contemporary digital social networks can be seen as instrumentalizing such emotional slavery, it is a measure of its success that it usually passes without comment or criticism. On the rare occasion that the operators of the digital social network are taken to task over a perceived ethical transgression, such transgressions are usually portrayed as challenges to the very democracy that digital social network operators are trying to protect: either a user-initiated campaign against tolerance ('hate speech') that puts the network operators in the tricky, but eminently democratic and fair-minded, position of agonizing over whether to 'censor' an individual user's views; or a governmental agency demanding access to detailed records of a user's access and usage logs, where the digital social network operators manage to both supply said information and portray themselves as victims of the surveillance state.

For Morozov (2013), there is no doubt that the interests of digital capitalists and government agencies have converged, and he shows how the collection of data leads to a coalescence of ideological practice around changing individuals' behavior to better serve the interests of the corporation or agency. Often this practice is presented as a kindly or even philanthropic move, such presentation as practiced by governmental agencies being dubbed by Morozov (2013) as "nudging" and "nanny statecraft", or by Jones, Pykett and Whitehead (2013) as the "psychological state." Invariably, the digital capitalist networks, encouraging absolute solipsism in the form of sociality, present this ideology as self-improvement that is a win-win situation where the individual's self-improvement results in an overall improvement in society. Morozov retrospectively sees the failure of the information utopianism of the 90s as inevitable, given that both capitalism and bureaucracy "thrive on information flows, the more automated the better." (2013) Citing numerous examples of governmental agencies sacrificing democratic principles in order to "steer behavior", he describes a vision of "algorithmic regulation" that attempts to fix public problems without public consultation by appealing to self-interest. (2013) This is all driven by an underlying ideology of what Morozov (2013) identifies as an internet-centric solutionism, where all social situations are seen as optimization problems that only require the right algorithm in order to compute their improvement. This ideology is typical of those who run digital social networks - see for example Eric Schmidt and Jared Cohen's almost unbelievably naive (or perhaps disingenuous) 2013 book length solutionist screed *The New Digital Age: Reshaping the Future of People, Nations and Business*. As Morozov recognizes, such an ideology does nothing but constrain human development. Faux-academic studies like the already notorious 'Facebook emotion experiment' that used ill-defined terms and conflated fundamental concepts like speaking and writing (Kramer et al, 2014) simply serve to illustrate the casual, even cavalier, attitude towards culture, affect and emotion that permeates the digital capitalist ideology, especially amongst those who are considered to be successful within that sphere.[5]

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[5] See, for example, the 2014 response to the public outcry about the emotion experiment in a post by the Facebook employee who designed the experiment. Phrases of note include "we were concerned that exposure to friends' negativity might lead people to avoid visiting Facebook," and "the research benefits of the paper may not have justified all of this anxiety." (Kramer, 2014) See also the 2014 response of Sheryl Sandberg, Facebook's Chief Operating Officer, whose apology seemed to imply that it was ordinary market research that other companies also carry out and that the apology was for that fact being "poorly communicated." (Krishna, 2014) Finally, see Facebook founder Mark Zuckerberg's 2010 public explanation for a mass change to all users' so-called privacy settings: "we decided that these would be the social norms now and we just went for it." (Johnson, 2010)

Conclusion: the Technoaesthetic

According to Pascal Chabot (2003) a Simondonian *technoaesthetic* is "not contemplative. It is sensitive to transformations and mutations. It thrives on change." (p. 142) Most importantly, though, such a technoaesthetic "goes beyond technology" into all areas of vital and physical life, looking for change, action, surprises, the resolution of two disparate fields into a new becoming, and this is why it is "diametrically opposed to technocracy." (p. 142) While digital networks continue to be used to produce and consume anxiety, to subjectivize individuals as 'users' alienated from the regulating of the very networks that could offer the means for a collective individuation but instead are used to reinforce an intrasubjective search for meaning, all profits associated with digital social networks will continue to be measured in terms of existing political economy, for the benefit of a handful of digital capitalists.

On the other hand, the potential offered by the genuinely open engagement with digital networks that can resolve "ethical dynamics for affective intensity" (Sha, 2013, p. 105) may be equal to the task of the psychic and collective individuation that forms the basis of Simondon's ontogenetic philosophy, where emotion need not remain stunted and misdirected in cycles of anxiety, rather become structured across a collective. Digital social networks are starting to lay universal claims of being constituted by humanity itself. Such a constitution should, rather than alienating itself, transcend itself by offering the means of not only production, but open access to digital networks themselves. For this to happen, we will all have to become what Simondon calls "technical poets." (Chabot, p. 141) In other words, we need to stop thinking of ourselves as *users*, with all the negative connotations of drug addiction, and start thinking of ourselves as *interactors*.

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