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From Social Data to Body Data to Psy Data: Tap, Tap, Tap

Oliver Leistert

Our networked condition under capital relations continues to open pathways to tap into new sources of value. Since the social media turn, the expansion of capital in the digital realm has successfully tapped into body data by way of products like Fitbit. More recently, the proliferation of psy data is underway with chat bots, backed by artificial intelligence to harvest the last remaining and intimate part of expressiveness that neoliberal subjects are producing: mental health apps are at the last frontier of capital's attempts to profitably govern its subjects. To understand these processes, a recap of Marxian theory and the use of some tools created by Félix Guattari will be undertaken.

The capturing mode of data sensing of all sorts has made every human body potentially a media outlet, delivering discriminable sections of the population as an inference of multi-modal data points. This is the subject of this text: how a body became media. And since there is nothing else but a body, this implies a psyche, too: body data and psy data under late capitalism's¹ networked condition. Both are captured under different registers and treated technically in different ways, but both nonetheless serve the same purpose: to prolong and further differentiate governmental technologies by reducing costs.

One such governmental technology is the diffusion of social media platforms. The exploitation of social media users and the selling of advertisements has shifted dramatically from old-fashioned advertising that took the pollution of the public sphere via billboards as a model—i.e., non-targeted broad sending of data towards unknown users—to a highly refined algorithmic discrimination down to the individual level (Andrejevic 2011). Such aggregated data points that constitute the subjects of datafication in the modality of algorithmic governmentality (Rouvroy and Berns 2013) are, broadly speaking, the current material background of ad techniques on the web and the main monetization strategy of this billion-dollar industry driven by technologists.

More recently, we can observe the advent of a new paradigm of data extraction and exploitation. A well-known example for the proliferation of body data is the fitness tracking industry, i.e. companies like Fitbit, which manage to deliver sensors for physical bodies, in combination with the tracking and sensing possibilities that the average smart phone or smart watch offers, as desirable gadgets for a contemporary urban subjectivity. If need be, users may add via their dashboards additional data to the data silos of the company. Fitbit's products can be used to track all sorts of body functions, and are widely used in sports and leisure activities to control the subject's performance and self-set goals,² but functionality varies a lot depending on the product.³

1 Indeed, we still don't know what a body can do. And we will never *know*.

2 There have been severe cases where military and spy personnel were trackable via their fitness app data. See <https://www.bellingcat.com/resources/articles/2018/07/08/strava-polar-revealing-homes-soldiers-spies/>.

3 See <https://www.fitbit.com/>. The market is still quite diverse and besides GAFA (Google, Apple, Facebook, Amazon) with Google Fit and Apple Health, and sport companies such as Nike, medical companies, such as (now defunct) BodyMedia, are also forming the field.

Until recently the sensing of body data has been the exclusive domain of the licensed medical industry, conducted under supervision of medical personnel. This kind of data, e.g., generated by heart monitoring machines, used to remain in its own sphere, legally separated from the internet economy. Strong data protection laws for medical data prevent further economic exploitation, at least in the European Union. Nonetheless, this market has grown dramatically in a few years, and with health insurers jumping on board the mental health app market, and inspired by huge investments of the European Union into so-called e-health programs, the prospects of this market have become more than promising.⁴

Body Data and the Networked Neoliberal Condition

The move from body data sensing techniques under the guidance of medical personnel, to body data sensing techniques under self-guidance and driven by the principles of value-extraction by markets, marks a turning point for the integration of body data into the global dataveillance cloud we have been subjected to since the turn of the century. I propose that, while sensing body data has been a medical practice for a long time (e.g., long-term EEGs), the genealogy of more recent developments points to a kind of data sensing that was established with the mass adoption of smart phones and commercial social networking. Once the ubiquitous, self-referencing digital narcissism and permanent exposition of affects, whose emblematic symptom is signified by the like button, had become a means of delegated self-governance and assessment, it was only a matter of time and capital's ceaseless drift towards expansion that signaletic material from the body would supplement the subject's desire to measure its inclusion and belonging to a data sphere of dividualistic aggregation. All the more so since the body data industry is targeting the governmentally self-governed subject in its desire to remain desirable, driven by fear of losing status. Our general networked condition is, therefore, intertwined with the advent of this surveillant assemblage that includes fitness and health trackers and their corresponding wetware.⁵

Body data are data sensed from bodily signals, such as pulse or blood pressure. These are a-signifying semiologies in Félix Guattari's terms, or

4 Since data protection and privacy laws differ vastly between the US, the EU, China, and India, I will not discuss the specifics of this topic here.

5 See Gerhard and Hepp (2018) for a discussion of self-tracking and the construction of a datafied self from the perspective of ethnography.

signaletic matter, devoid of signification (Guattari 2013). They contain a deterritorializing vector, in much the same way as other a-signifying signals, such as rhythms or computer code. The reterritorializing production of meaning takes place with the help of applications and calculations that render the pulse beats into a comparable unit against a normalized field, which can then be read by the subject and ascribed meaning. The process of signification remains exterior to the data sensed, and the data only become meaningful to the urban class consumer after correlations to statistics and norms, such as the body mass index (BMI), are made.

A possible point of intervention into this assemblage, to subvert and open it up, would be the interface between body data sensed and its further processing. But instead of further deterritorializing the body signals through creative relaying, such as opening a plane of consistency between other sensed pulses and imagining something else (e.g., to create a collective symphony), the prevalent purpose that the technologist's instrumentality of neoliberal investments gain from this signaletic virtuality is to impoverish it immediately by reducing it to a measurement against normalized BMIs or other biopower standards. I will return to this problematic use of technologies in capital relations.

The Poverty and Authoritarian Twist of Quantified-Self

The act of calibrating body data against such indexes as the BMI (a feature that is part of the Fitbit app), stems from the older regime of discipline that worked the individual as an indistinguishable item in a series (Foucault 1995). Contemporary norms and "the normal" are usually decoupled from this absolute, static index and become statistical matters of ranges within an acceptable threshold.⁶ Body data sensing, from this perspective, integrates a *neodisciplinary regime* into the array of dynamic self-governance methods. With the return of this old norm-style, the recent authoritarian turn of neoliberalism finds its equivalent on the level of the production of subjectivity via body data. Here, neoliberal

6 George Canguilhem has shown in his doctoral thesis from 1943 how the difference between normal and normativity has been historically productive in the clinical fields (Canguilhem 1989). Foucault has written on the problem of norm, normal, and normativity extensively, see e.g., Foucault (2003). Maria Muhle has written a fine book on the problematic established by Canguilhem and reworked by Foucault (Muhle 2013). See Sellar and Thompson (2016) for a further discussion of control societies and norms, and in terms of algorithms, of course, all the works by Antoinette Rouvroy (e.g., 2011).

subjectivity is remodeled by a recourse to old paradigms such as mass measures and non-subjective, non-individual, abstract norms re-enter its value system. But this does not provoke an existential crisis for the contemporary paradigm, because the cult of the individual established by the current phase of capital expansion remains compatible with a serial body normativity derived from the masses of bodies: the very process of body data sensing overcodes this apparent contradiction (in value systems) between the idea of an undifferentiated item in a mass and the smart simulation of the singular subject. The technology provides an instantiation of what before was left to each body's own devices through the immediate immanence of the body's being. And it is precisely this bodily, self-dependent milieu that is captured by body and psy data sensing, over-coded and reworked into the transcendental value system of norms and normativity provided by the modern power-knowledge-subject complex.

Thus, the quantified-self's misery and poverty cannot be exemplified better than through its inability to let creative collective processes proliferate, such as a heartbeat symphony. Instead, all that is done with the captured body data is to dump it into the vectors of normalization. But there is a much broader context to consider here: while it certainly has some explanatory reach to describe self-quantifying subjectivities as just another hideous manifestation of neoliberal self-indulged control and narcissism, *the broader desire to feedback body data into data silos is not at all explained sufficiently within a framework of governmentality*, or a Foucauldian analytics of power, for that matter. This phenomenon, to my understanding, points towards a technoculture that is historically much older and more profoundly tied to the question of how to relate to the world, of Western ontologies so to say. It is a general condition of subjects in capitalist societies that one can recognize, at least schematically, in this case. In order to make this claim, I will have to turn to Karl Marx for a moment.

Capital, Abstract Value, Alienation

In a Marxian sense, the social relations that capital establishes are obscured and deceiving in everyday practice. According to Marx's analyses, under capital relations, an abstract power is at work behind the backs of the subject. This power is responsible for both the unprecedentedly rapid technological developments since the seventeenth century, and for the failure to transform technological developments into an emancipatory development for all human (and non-human) kind. This dialectical figure of technological progress without humanity's progress is what Marx identified

in his analysis of capital as the most basic insight. And it is worth returning to his analysis for the sake of understanding the proliferation of sensed body and psy data.

To sum up Marx's analysis very briefly: the historicity of the commodity is rendered invisible under capitalist modes of production. Subjects are secluded from its history and from the practices that produced the rich, even abundant, materialism all around in a fashion unique to capital relations' mode of production, distribution, and consumption. This is what Marx called the fetish character of the commodity. Abstract value is the only mover of capital, while its use value—such as the concrete experience one may have with a product—remains irrelevant to capital. This is what I propose to call the *tragic bifurcation between a value of means without ends and a value of ends with appropriate means*. The original deterritorialization that capitalism uses to overcode all societal relations establishes a fetishism of the commodity not as a psychological condition, but as an organizing principle of societal relations as reification: things, not humans, seem to be at the center of all doings. And for capital, only abstract value matters. The commodified product as commodity is overcoded and deterritorialized, or, in the case of labor, concrete labor from the perspective of capital is abstract labor only. By separating the concrete world from the societal relations it takes over, determined by the abstract value (capital's⁷ sole mover), capital produces a schizophrenic plane that Deleuze and Guattari have famously and extensively described in their two-volume book, *Capitalism and Schizophrenia* (Deleuze and Guattari 1983; 1987). Without owning the means of production and the products produced, and subjected to a being that is reduced to interchangeable points of action within the process of production, distribution and consumption, subjects are cut off, alienated from the cycle of production, exchange and consumption by the abstract movement of capital. Capital establishes a barrier that cuts through all relations and deflects them into new connections. Maurizio Lazzarato, a thorough reader of Guattari, has condensed this:

In capitalism, subjectivity is submitted to a schizophrenic tension that causes it to tend towards modes of living that are both futuristic and archaic. On the one hand, it is sustained by a deterritorialization which undermines 'existential territories' (a way of living which would assure

7 The fetish character of the commodity is not linked to fetishism as a psychological dimension and concept, as discussed prominently by Freud. On the other hand, nothing stands in the way of letting both concepts of fetishism join forces. On the epistemic necessity of mingling all kinds of fetishism, see Donna Haraway's discussion of genes in Haraway (1997, 134–37).

professional and social security, ethnic and national identification, languages, values and cultures solidified in time etc.) and on the other hand, it is caught up in a neo-archaic reterritorialization (nationalism, Lepenism, a return to traditional values—work, family, ...). Guattari's insights remain of fundamental importance in this context as it is essential to being able to conceive of a way of escaping these simultaneously reactionary and hyper-modernist 'reconversions' of subjectivity. (Lazzarato 2008, 174)

Guattari has shown that the production of subjectivity is, at least since the end of World War II, a key operation of capitalism. Marx was equally fascinated by capitalism's production of subjects, but during his time, this production was a much more violent and disciplinary operation than it has become (in the West) today. This physical violence made it hard to acknowledge that industrial workers also internalized the disciplinary regime. Marx, as a proto macro-economist and sociologist, was barely interested in micrological or micropolitical events (a post-68 interest). He defined capital as consisting of two parts: fixed capital, i.e., the machines bought to produce, and circulating capital, such as the labor bought. Now, necessarily driven by competition, capitalists have to reduce unit labor costs in order to survive. To invest in fixed capital, in new machines, to reduce production costs, is the inevitable way to survive under the conditions of competition. But fixed capital is not productive in terms of abstract value: the sole source of abstract value remains the difference between the worker's life time spent—the concrete time at work—and what this turns out to be as invested circulating capital. This means, from a Marxian perspective, the only source of value is the worker's life time spent as labor power. The margin to realize profits equals negatively the rise in productivity of the machines. This is, in a very brief sketch, the tendency of the rate of profit to fall, a basic law of capitalism, as Marx coined it famously, and described it in the third book of "Capital".⁸ And beyond its numerous problems and complexities, it provides at least one interesting insight, namely that technological development plays a difficult, ambivalent role for capitalism. Antonio Negri and Michael Hardt's⁹ analysis

8 Moishe Postone has focused precisely on the intricate relation of abstract value and abstract time as the founding mover of capital and means of domination (Postone 2008).

9 Based on this tendency, many fantasies have bloomed that understand this as an even teleological claim by Marx that equals a verdict about the historical necessity of capital's proliferating crisis. My point is more humble: there is a need to integrate more and more into the realm of capital, or to widen its realm, as the productivity of

is very much based on the liberating prospects that cooperatively owned technologies entail (Hardt and Negri 2005).¹⁰

The immediate consequences of this basic law of capitalism are well known: outsourcing the production to cheap labor regions and expansion of the capitalist model into new frontiers—a continuation of the primitive accumulation and colonial enterprise. The capture of affects in social media silos is therefore just a logical consequence of capital's movement into new fields—because the worker's life time spent now includes the user's life time spent.

This expansion also proved to be a very subtle means of social control in line with the ideological necessity of individual freedom in liberal regimes. Differing from the disciplinary regime of the warehouses and Fordist production facilities, the call to participate in a dataveillance capture scheme is translatable into the rhetorical guise of choice. This cornerstone of liberalism, which has mutated in neoliberalism toward a few algorithmically prefabricated possibilities to choose from—most often all in a purely commodified way—down to the infantilizing “like” button, continues to serve and function as the mental token of liberation.

Capital and Body Data: An Alienated Techno-Culturalist Semiotic Drive

To capture body data and capitalize from it is a possible next logical step in the blind and inevitable process of the expansion movement of capital. Technology in the manifestation of products like Fitbit, and the networked condition of the body they invoke, make this possible. To look at sensed body data as an effect of the automatic movement of capital brings to the fore the deficiency of any description of technological developments as neutral or free from economic interests. On the other hand, to prioritize the relation of capital and technology entails the risk of totalizing this relation and of missing the many subtle processes that benefit from capital's dependency on technological investments and developments. These complexities cannot be captured by Marx's theory of value alone. Nonetheless, Marx's value theory continues to provide the most convincing

machines continues to grow; a need to tap into new sources of wealth, such as body data and psy data.

- 10 In fact, the rereading of the *Grundrisse* had sparked a complex discourse about the question of machines and the “general intellect,” most prominently in Italy under the term post-operaismo. See Negri and Fleming (1991), Virno (2003), Virno (2008), or Lazzarato (1996).

explanation of the inability of capitalism to handle our planet and all life forms on it in a responsible way.¹¹

But to return to the problematic of societal relations under capital's terms: I have referred to the alienation inherent to capital modes of production and consumption, including the relations of and amongst laboring subjects. And it is here where, although alienation might not be the best term for it, the sensed body data find their place, too—Fitbit belongs to the reproductive sphere. Subjects are using their “free time” to remain fit for their jobs, in fear of losing in the competitive game they are subjected to due to capital's ongoing reduction of circulating capital. Neoliberalism has been very successful in capturing time beyond the pure working hours. On the one hand, by a simple extension of working hours, on the other by the informal dissolution of the differences between work and leisure. Leisure time, as it was invented in and for the Fordist era, is history. As long as one is not truly offline, one is always at least “on hold.” To sense body data then is a double operation of expansion into uncharted territories: first, it is a new passage for capital to tap into data from subjects outside of official working hours. Second, since the data sensed signify nothing but the bodies' condition in relation to other bodies or static norms such as the emblematic BMI, competition in the workplace leaks into the intimate sphere of body functions. Heart rates now become a possible indicator of job promotion. This is a twist that workplace surveillance could never have achieved itself. It was only possible via the loop into the value system of health. Thus, it is a logical development that companies start to offer free body data sensing devices to their labor force: body data become part of the curriculum vitae.¹²

The established capturing mode of body signals with networked technologies reproduces and prolongs an alienated techno-culturalist drive that colonizes the relation of the subject and its body as an option for commodification. While a Foucauldian genealogical approach on governmentality bears witness to the intrinsic linkages of power, knowledge and subjectivation, a Marxian perspective, by neglecting this productive and

11 Isabelle Stengers writes in her preface to the translation of *In Catastrophic Times*: “Today there is no need to assert, as I did at the time of writing *In Catastrophic Times*, that capitalism—some representatives of which claimed held the solution (so-called green capitalism)—is fundamentally irresponsible. In fact, unregulated capitalism and its allies have refused the role that should have been theirs. It was the route of direct confrontation that was taken, with the determined negation of global warming” (Stengers 2015, 8). On capital and ecology, see Moore (2015).

12 Fitbit products have become a common “free” gift from companies to their employers in order to extend the workplace surveillance scheme.

enabling relation between power and subjects, and by reducing subjects to mere effects of objective relations they are unable to grasp, offers, in a more direct way, a reworking of the processes of commodification that take place above and under the skin. It is only because the relations between subjects and technology are overcoded by capitalist modes of production, distribution and consumption, i.e., what Marx termed alienated, that body data sensing assemblages can become operative on a massive scale in the first place. In addition, the functionalist, post-structuralist approach emblematic in the concept of the assemblage renders visible the de- and reterritorializing flows of micropolitical codings that treat economy, desire and semiotics as one single matter of a becoming. Sensed body data seems to be a convincing case to blend Marxian capital movement as historical development and post-structuralist wetware network desires, because sensed body data are intrinsically linked to capital while at the same time being a pertinent item of a semio-capitalistic operation that Marxian tools alone cannot shed enough light on. This is even more the case once we turn to psy data, the golden valley of the mental health market.¹³

But Then There Is Psy Data—The Final Frontier

Psy data is the term I suggest for “mental health” and “affective” data collected within the current paradigm of capitalist datafication. My example for this new data paradigm is Woebot: a chat bot software that is connected with data silos and so-called artificial intelligence.¹⁴ The mental health software Woebot acts like a trustworthy friend or companion. It is positioned at the frontier of the dataveillance complex and marks the entrance of Western subjectivities into a realm that until recently only China ventured out to conquer with their social surveillance politics called the social credit system.¹⁵ Woebot, and many other mental health chat bots for that matter, work “better” the more data they gather and process. Users are asked to let Woebot sniff into all profiles by using the user’s credentials to access Facebook, Twitter etc., accordingly. This seems to be a rational decision, since the analyst would be allowed to ask any question, too, and rightly expect an answer. The only problem here is that Woebot, of course,

13 Alienation remains an alien concept and carries much of the burden of Marx’s reversal of Hegel. Thus, with it comes a problematic heritage of Sein and Schein, that I can only call upon here by naming it problematic. See Althusser (1969) and Althusser, Balibar, and Fernbach (2015) for the continued pertinent discussion of Marx’s philosophy.

14 <https://woebot.io/#features>

15 https://en.wikipedia.org/wiki/Social_Credit_System

is not a psy-analyst and there is a cruel displacement at play (see Figure 1). The bot's possible answers rely on datafication of the subject's life. But this is not a mirror. Datafication is not representation, but only the production of dividuals, massive amounts of data points that can arbitrarily be combined. Second, the relationship between a subject and this bot app is heavily determined by the relation that subjects and their smart phones are engaged in and its degree and kinds of intimacy. This includes such basic and elementary effects as the screen's brightness and glow, which affects not only infants, but adults, too. And this goes up to the power relations that the subject as the apparent master of the phone cultivates and enjoys in this psy-setting.



[Figure 1] Screenshot woebot.io/#features (Source: <http://woebot.io/#features>)

The realm of signifying semiologies is the small part of reality that Félix Guattari despised for being the main functor that produces the reduced and infantilized subject of capitalism. It is here that the expansion of capital reaches its last frontier to tap into a subject. Once even the “conversations” about one’s psychic status and well-being are part of the dataveillance cloud, the tapping of data has worked itself into the most inner utterances that subjects are able to signify—of course, without any proper semantic understanding thereof. The machine that seems to be listening and responding is only a reification of the alienated nature subjects are being subjected to in capital relations. As pointed out earlier, the relations that subjects can have with such technology, and even more so if this is such an intimate technology, are overcoded from the start by deterritorializing vectors of capital into modes of value extraction and reterritorialized by the

infantile and regressive vectors capital sets in motion as a substrate—the psybot app.

The deceit that such bot apps operate on is in plain sight, but as the app taps into the subject's depressive or simple unhappy mental state—in a societal setting whose paradigmatic cultural gesture is a like button—the deceit meanders without much resistance into a successfully exploited social hack. And while there is no way to tell when the data on psy states that was entered into the app would return and shape, most likely imperceptibly, the possible choices the subject has, it is safe to say that conceptually the behaviorist paradigm of Woebot and other mental health apps is targeting only behavior and not well-being. Psy data are data that are supposed to support or rearrange the subject's functioning in her purported social setting. The harvesting of psy data adds another layer to body data, social media data, workplace surveillance data and older forms of data, such as travel data or insurance data.

So, there is body data and psy data, all fed into the dataveillance cloud and in a reciprocal, functional loop between bodies and data processing. Tapping into body functions and the most intimate emotional states, the algorithmic governmentality that Antoinette Rouvroy (2013) highlighted recently, is being supplemented by a variety of other governmental technologies. Their function is to keep the subject—which is the only source of value in a Marxian sense via her expenditure of life time as labor time—alive and well. Whatever depression, paranoia or simply refusal to work there may linger in her soul, her smart phone companion will readily assist in overcoding such obstacles to disciplinary neoliberalization.

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