Notes:

- Referencing is out of control – some is missing, some is too overwhelming. How can I deal with it?
- Analysis of International Data Union and Networked Labor still missing
- Conclusion still missing

Abstract

A vast amount of our daily lives, both professional and personal, is now embedded within computational network logic. The boundaries between work and leisure become blurry, which oftentimes means the commodification and monetization of the latter. Social media monopolies, in particular, make clever use of the 'network effect' (where the number of users determines the value of a service) for marketing purposes, extracting profit from user activity. The current mode of exploitation is now being labeled under the "social" tag, alienating the user further from the perception of his/her condition as a worker. The problem is that, with business dictating all the rules, the conversation becomes rather unilateral.

A possible solution would be to strive for the organization of a political force that represents the social media workers' and provides them with a voice and better control over their data. But how to deal with the political, social and cultural asymmetries or the users' lack of awareness of their own condition? In order to answer these questions I will analyse the potential and problematics of translating traditional union forms to the digital space by studying projects such as the International Data Union and Networked Labor.

Following such trajectory I will defend social media workers' unionism, that is, social media labor organization, whose necessity lies in providing workers with the much needed tools for the articulation of legal demands regarding their online data. The expectation is that this will, in turn, open up new possibilities for peer-to-peer projects in alternative social media.

INTRODUCTION

In March 2015, two articles on the Technology section of "The Guardian" reported Facebook's misuse of user and non user data, actively breaching EU law. A report, commissioned by the Belgian data protection agency and conducted by researchers of the Centre of Interdisciplinary Law and ICT, the University of Leuven and Vrije Universiteit Brussels, had been published recently which denounced the abusive practices enforced by the company in regards to the tracking of user data for targeted advertising purposes. Besides tracking Facebook's users and non-users alike outside of its platform, through the placement of browser cookies which retrieve online behaviour information, the option offered for opting-out ends up placing a new tracking cookie on the users' computer.

The advent of networking technologies, with its accompanying promises of decentralization and freedom, bore with it a poisoned gift: born and developed within a capitalist framework (still unsure about this phrasing), mainstream networks opened up new possibilities for mass surveillance and new dimensions of the subject for surplus extraction ventures.

However, neither does this mean that such networks are reducible to the logic of capitalism (Castells, Manuel), nor that all the variety of exchanges occurring at their level happen in order to satisfy the needs of capital (Terranova, Tiziana). With this essay I attempt to navigate the intricate power relations governing the so-called digital economy in relation to its historical, material context.

Debating immaterial labor, digital labor and digital economy becomes an exercise in vacuity if one fails to distinguish the broader material conditions which allow for them to exist in the first place. My essay neither dismisses nor focuses on these, but, acknowledging their influence, will trace a history of labor in the context of the Internet and, more specifically, Social Media, as well as its impact on the formation of a political conscience of users as workers.

In the first chapter I will provide some historical contextualization on the restructuring of capitalism that took place from the 1980's onwards. In order to do so, I'll be pulling out Manuel Castells' distinction between modes of development and modes of production as the background against

which I'll lay a brief, synthetical history of the changes at the level of society and technology which allowed for the "rise of the network society". From Deleuze's societies of control and Galloway's protocol up until a brief summary of the history of the Internet (both mainstream and alternative), the chapter will end at the fringes of the discussion around digital economy.
The second chapter will pick up the previous chapter discussion and contextualize it within corporate social media platforms. From the concepts of cybernetics/governance and the abstraction of complex social subjects into sterile graphic representations, the history of the Social Graph (the graphical representation of internet users and their interpersonal and non-personal relationships) will conduct this chapter through the concepts of social engineering, sociometry, relational databases and other tools for governance. The section will be concluded with an open question as to what consequences these technologies of power and of the self are presenting the labour struggles with, within the context of Internet labor.
The third and last chapter will touch upon Baruch Spinoza's concept of the multitude to open up the space for the discussion of the asymmetries which make it impossible to politically organize in this context. Following a brief outline of the benefits of the traditional labour union I will defend, however, the necessity of such an endeavour against its negative odds, on the grounds of Karl Popper's notion of Piecemeal Social Engineering. Analysing projects such as the Artist's Union in London, International Data Union and Social Networking Unionism I will attempt to map existing efforts to translate traditional labour struggles to the digital space of the "social factory" of Facebook, Twitter, Instagram, Tumbler, etc.

I CHAPTER

According to “The Rise of the Network Society” by Manuel Castells, the restructuring of the capitalist system that took place from the 1980's onwards saw the information technology revolution as a fundamental factor which allowed for its birth. Amongst other aspects, this restructuring was characterized by the rise of new powerful markets such as the Asian-Pacific, as well as the integration of several world economies into a singe, interlinked, gloriously globalised unit. Castells points also to the accentuation of uneven development, this time not only between the binary North and South, but within societies themselves[1]. An example might be the rise of Germany as an european economic superpower, at the expense of the german working class and peripheral economies such as Greece, Spain and Portugal, held hostage under the regime of debtocracy.
Despite placing the information technology revolution at the centre of his analysis of the economical and societal changes, Manuel Castells warns us that, albeit shaped by capitalism, this revolution was not reducible to the logic and interests of capitalism. Likewise, the close relationship between the restructuring of capitalism and the rise of informationalism does not automatically mean that both processes are indistinct from each other. In order to better understand what this assumption entails, it is necessary to distinguish between modes of production and modes of development. As defined by Castells, modes of production are rules determined by social structures regarding the distribution and uses of the surplus, whilst modes of development are the technological conditions which define how labor shapes matter, thus determining the quality of the surplus. That which defines the mode of development is the primary source of productivity in the process of production. Being capitalism the mode of production, informationalism is the current mode of development associated with the new social structure. Its main source of productivity is the action of knowledge upon itself.
In “Postscript on the Societies of Control”, Gilles Deleuze defines this evolution of capitalism as no longer a capitalism “for production, but for the product”(p.6). It is a capitalism for services and self-marketing, a system in constant change, no longer territorial, whose language is qualitative and whose governance is decentralized. The technology at the centre of this shift is the computer, without which, as put forward by Castells, social phenomena cannot be understood. The representation - diagram - of this society is the network, modular and fluid, the instrument which organizes the governed in largely carefully managed data flows. That which allows for such

management is the protocol (Galloway, Alexander, "Protocol: How Control Exists After Decentralization",p.3). Within this context, the protocol is that which allows control to exist after the foundations of central governance disappear. Computer protocols define the standards through which technology is implemented, regulating the way through which different technologies communicate between each other and ultimately how users interact with it (Galloway, Nicholas, "Protocol: How Control Exists after Decentralization", p.7). The protocol exists within the decentralized, distributed network, of which the Internet is the most prominent example.

A Network of Networks

The precursor of the Internet, ARPANET, was a network architecture devised by the U.S. Defense Department Advanced Research Projects Agency (DARPA) as a response to the Cold War. In the even of takeover, American communications would be secured since the whole of the network could not be controlled from any central point. Such architecture was constituted by a vast amount of computer networks linking to each other in numerous ways. (Castells, Manuel, "The Rise of the Network Society",p.6). Funding of the research leading up to this project was the Information Processing Techniques Office (IPTO), also part of DARPA.

If we are to agree with Manuel Castells, the birthplace of a new technological paradigm around information and communication technologies was greatly influential in its development, for it reflects the culture of freedom and entrepreneurship which characterized American campus culture of the 60's (Castells, Manuel, "The Rise of the Network Society", p.5). This might be due to the central role of American Universities in the development of networking technologies.

As described by Katie Hafner and Matthew Lyon in "Where Wizards Stay Up Late", networking infrastructures were installed at universities per request of IPTO contractors of more advanced computer resources, who where there conducting their research. In an attempt to cut costs, ARPA built a system of links between machines which allowed for resources to be shared more effectively. That way, everyone could virtually access the most advanced machines without them having to be physically present. With the growth in number of computer science departments, however, universities with no access to the Net started to fall behind. The ability of colleges to host an ARPANET node was determined by their involvement with government funded research on defense related areas. Eventually, Larry Landweber from the University of Wisconsin proposed the establishment of CSNET (Computer Science Research Network). After some defining meetings and proposals, CSNET was established as a three-layered structure involving (but not funded by) ARPANET, a TELENET-type system and the PHONENET e-mail service. By 1986, most American computer science departments were already connected.

Parallel to its military funded origins, several other, more disruptive projects emerged that contributed to shape contemporary Internet. Their mention is of key importance if we are to discern the often contradictory, but interrelated, intertwining exchanges occurring at the level of networked communications and which constitute the core of digital economy.

Community Memory, for example, a 1973 project by Efrem Lipkin, Mark Szpakowski and Lee Felsenstein, was the precursor to many computerized bulletin board systems (BBS). Users of Community Memory could easily add or search for messages using a terminal program. What started out as “an attempt to harness the power of the computer in the service of the community”(Community Memory flyer), ended up opening the doors to various degrees of exchange, from art, literature, education, journalism, etc, actively shaping the social and economic aspects of the community.

Networks such as BITNET (*Because It's Time Network*) and USENET are also worth mentioning as examples of decentralized, distributed structures which pioneered the contemporary web forum. Implemented in 1981 by Ira Fuchs, BITNET was a college computer network functioning between university institutions. The transferring of files occurred from one server to the next until finally reaching their destination. Its distributed network structure resembles that of USENET, founded in 1980 by Tom Truscott and Jim Ellis, a discussion system still operational nowadays. Users post

their messages on newsrooms, which then circulate from one server, which might be hosted by the user herself, to the other.
The academic freedom culture allowed for the rupture with old patterns of behaviour, both in society and business. The growing influence of the widespread use of personal computers as a means of achieving freedom, placed networking structures at a place of redefinition of the ideology concerning governance - there would be no place for central government in the networked society (Curtis, Adam, "All Watched Over by Machines of Loving Grace: Love and Power"). It has also placed discussion threads, amateur blogging or social media relationships, to name only a few, under the scrutiny of the market.

Immaterial Labor under the Digital Economy

Tiziana Terranova, in "Free Labor: Producing Culture For the Digital Economy", describes digital economy as the intersection of postmodern cultural economy (the arts, media, etc) with the information industry. Academics such as Richard Barbrook believe it to be a mixed economy containing a public element, a market-driven element and a gift economy element, the latter being perceived by Barbrook as an overcoming of capitalism from the inside. However, such assumption is met with skepticism by Terranova, who conceives of gift economy as being embedded in a process of reproduction of relations of production, thus becoming "free labor". A number of reasons make possible the emerging of "free labor", namely an historic desire for creative production (May of 1968) and the informationalist capitalism emphasis on knowledge as source of surplus. Supported by the post-fordist factory exodus, digital economy does not mean the end of alienation for the working class. In fact, it obfuscates the relations of production in such a way that, whilst not produced directly in answer to the capital needs', value captured in platforms such as mailing lists, chat rooms and social media still represents the "process of economic experimentation with the creation of monetary value out of knowledge/culture/affect" (Terranova, Tiziana, "Free Labor: Producing Culture for the Digital Economy"). For Terranova, this process of incorporation doesn't necessarily mean the infiltration of capital into a given subculture. In fact, this assumes the independence of these subcultures from capital, which Terranova denies, for their existence is always contained in it. Incorporation, then, means "a more immanent process of channeling collective labor (...) into monetary flows and its structuration within capitalist business practices" (Terranova, Tiziana, "Free Labor: Producing Culture for the Digital Economy").
Lazzarato's key text "Immaterial Labour" sustains that subjectivity is the "raw material" of immaterial labor, conspicuously producing a social relation. In Lazzarato's understanding, immaterial labor can be seen as incorporating most of post-industrial production characteristics: cooperation, self-directed management, autonomy, networks and flows. However, one must bear in mind the normative character of said characteristics as a means of achieving the most efficiency possible. Immaterial labor combines intellectual, manual and entrepreneurial skills and its cycle of production operates on a social level, there where social communication corresponds to economic value, the "social" directly identifying with the "economical". This assumes that the public/consumer implicitly takes part in the process of production by means of his/her interaction with cultural commodities.
Mirkos Tobias Schäfer's chapter two - "Claiming Participation" of his book "Bastard Culture" further explores the idea of self organized communities interacting with culture in a variety of ways, questioning the extent to which we participate in it and how. Technology both enables and shapes participatory culture. According to Mirkos Tobias Schäfer, participatory culture marks a shift between cultural participation, in which users take part by an intellectual deconstruction of cultural artefacts, participation which is still very much restricted to an intellectual elite, and the fading of barriers between amateur culture and professionals, users and producers, in which action, construction and modification are common interactions of the user with cultural artefacts. This participation extends beyond media text production and modification to software development, which is "the means of production of the digital age". This shift is allowed by new technologies and

the architecture of Web 2.0. The way we perceive participation has been shaped by the employment of media technology for social interaction and political activism. Participation here is viewed as a critical practice. In popular discourse, participation comes associated with the idea of promoting new technologies, whilst a more academic discourse perceives it as a cultural phenomenon which can help explain contemporary media practice. New terms have been coined to describe this user-generated culture: "produser", "prosumer", DIY culture, peer-to-peer and the ideas of a collective, of community and collaboration often come associated with it.
However, one must not incur in common misunderstandings regarding participatory culture, which comprise the assumption of social progress, that participation is always explicit and based around communities sharing similar motivations and which ignore design choices which implement this participation, as well as neglect that when we participate in culture, participation in power structures and general revenues is still out of our reach. .
So, in order to better understand participatory culture, one must keep in mind two key aspects, which declare that participants don't share a common motivation determined by an homogeneous socio-political background and do not always participate in areas dependent of big media industries; participation is not always explicit, but often times implicit, so that it becomes more difficult to assess the extent to which cultural production is affected by user generated content.
Explicit participation is driven by extrinsic or intrinsic motivation, which varies according to the different users' skills. It should not be reduced to altruistic motivations, or critical activism against hegemonic culture, but perceived as heterogeneous in the sense that concerns users from the most different backgrounds whose range of skills vary greatly, from different contexts such as paid labour, leisure or unpaid voluntary work. It relies on the appropriation of technology by users, and further development of technical skills.
Implicit participation is a consequence of design choices that take advantage of user activity and habits by automating and facilitating. It doesn't necessarily require conscious activity of cultural production or problem-solving by users, nor is there any need for them to collaborate and communicate. There's no need for interaction, shared values and common goals. These are platforms which benefit from user generated content contributing to information management systems, which can be exploited for improving information retrieval or gathering user info for market research.
Schäfer's mapping of the domains of user participation divides internet labour in three main areas: accumulation, archiving and construction, which can sometimes overlap and often occur in conflict areas in which user activities converge with the interests of culture industries.
a) Accumulation describes all user activities which comment or interact in any way with massified popular culture. Within this domain one can stumble across the principles of "remixing": combining, changing and adapting pre-existing cultural artefacts, often belonging to major media companies. However, even if some of these activities are protected by fair use, it is not always the case since Copyright Law has been becoming more and more restrictive - cultural industries are not too keen on having their profits under menace. This causes for many Digital Millennium Copyright Act letters to be sent and disproportionate lawsuits to take action.
b) Archiving is defined by user storage of artefacts, building online data collections and reorganizing cultural resources and knowledge bases. Again, this domain often clashes with copyright law, namely in the case of bit torrent sites and web storing and sharing services which not always survive copyright's holders attempt to have them shut down or their content removed.
c) Construction refers to production not dependent on culture industries, where distribution and production means are not subjected to a centralized power. An example of this type of production is that of software, in collaborative environments which abide to free/open source principles. Not unlike the previous domains, within the field of modification of software-based artefacts new interactions between amateur cultural and big media industries occur.
Social Media labour is mappable within the overlap of these areas, capitalized by entrepreneurial ventures which, as Schäfer puts it, have realized social media users' importance in the distribution of commercial messaging.

II CHAPTER

The process of marketing audiences for economic surplus was exposed and analysed in Dallas Smythe's 1977 essay "Communications: Blindspot of Western Marxism". According to Smythe, the fundamental marxist question about which economic function communications serve capital with, remained, at the time, unexplored. Criticizing positions which attributed mass communications with a mere ideological function as bourgeois and idealistic, Smythe's upheld the view by which mass media engage simultaneously in superstructure and infrastructure. His argument can only be understood if we accept the commodity of mass media under monopoly capitalism to be, instead of "images", "messages" or "manipulation", the audiences themselves. The meaning of such an assumption is that all non-sleeping time is work that we commit to the communications industry, by means of our labour power being sold to advertisement agencies. When consuming, audiences actively performing immaterial labor, which both satisfies and produces a demand, ultimately forming subjectivity.
Corporate social media appear to further Dallas Smythe's commodity audiences to the level of ever more pervasive algorithmic automation of affect. In fact, to his answer of the question "What institutions produce the commodity which advertisers buy with their advertising expenditure?" one might now add social media moguls such as Mark Zuckerberg or Eric Schmidt to his list of the owners of TV networks, newspapers, magazines, etc.
Christian Fuchs picks up on Dallas Smythe's notion to argue that profits, on corporate social media, are extracted from the commodification of user data for target advertising purposes (add reference). According to Fuchs, information work is three-fold and involves cognition, communication and co-operation. Fuchs bases his defence of labelling these activities as work on Marx's argument which equates it with the existence of labor power's action on objects and instruments for the creation of products with a use value. So, for example, on corporate social media, communicative digital work's objects are human experiences and online information, its instruments are the brain, the hands, the mouth, the ears, the social media platform itself and speech, and the use value created are the “new meanings established in social relationships. (reference here)
But which are the technologies of power put in place that organize us, the produser rabble, for more advantageous, profitable governance?

From the Sociogram to the Social Graph

Social Graph

A vast amount of our daily lives is now embedded within computational network logic. The Social Graph, a graphical chart of Internet users, objects and relationships between them, is precisely the attempt to map such network in an analytical, all-encompassing way.
Initially introduced during the Facebook F8 conference in 2007 within the context of the Facebook Platform, the Social Graph has now expanded to become an attempt at the graphical representation of relationships between everybody and everything on the Internet. In 2010, just three years after its introduction, the Social Graph became the largest social network dataset in the world. The underlying ideas of efficiency and productivity the word "graph" entails, however, echo previous attempts at engineering the social, of which the sociogram might be the closest relative.

Sociogram

It was the late 1930s when psychologist Jacob Levy Moreno accomplished quite the successful intervention at the New York State Training School for Girls Hudson, in an approach faithful to the principles of sociometry, a discipline for quantitatively measuring social relationships, which he founded.

Moreno started his intervention by conducting a survey - or sociometric procedure - which consisted of questions regarding the girls' preferences towards each other - who would they rather work with, or live in the same dormitory with, for example. However, these responses can only acquire their status as sociometric facts when charted diagrammatically in such a way that allows not only their presentation, but more importantly their exploration (Jacob L. Moreno, "Who shall survive?", page 96). As such, Moreno devised several diagrams of the girls' social network in terms of nodes and links, where every node represents a person and every link represents a relationship. This sociometric tool goes by the name of sociogram. On the basis of such observations, Moreno diagnosed the problem as one embedded within the existing dormitory arrangements - the position held by a girl within the community might increase her runaway risk. Indeed, the use of sociometric tools such as the sociogram can help the researcher predict and prevent possible escapes. And that was exactly Moreno's legacy in Hudson - juxtaposing these socio-technical charts upon current dormitory arrangements, a better functioning, more productive network emerged.
Making use of the sociogram as tool for re-engineering the social, Jacob L. Moreno not only succeeded in solving the school's problem, but also in demonstrating the governative power of social mapping in controlling the behaviour of the charted community. Governative in the Foucauldian sense of "governmentality", that is, when technologies of power which objectify their subjects meet technologies of the self - the sociogram charts happiness and general well-being of subjects in order to better organize them. Technologies of the self are, according to Foucault, that which allows the subject, either alone or with the help of others, to effect change in him/herself with the intent of attaining "a certain state of happiness, purity, wisdom, perfection, or immortality" (Foucault, "Technologies of the Self"). Indeed we might argue in favor of the sociogram as being in itself a technology of the self, in the sense that, with the help of others, subjects are expected to attain their most productive state of well-being.
If at this phase it is already perfectly clear the parallels between the sociogram and social graph, it is necessary that we look further into the concept of social engineering to better navigate the consequences entailed for the mapped network, albeit on different scales.

Social Engineering

"The aim of social engineering was to make society rational and train the state for maximum efficiency in the same way my father trained workers. He believed society could be controlled like a machine. The aim was to install these social engineering machines all over the USSR. These machines would make society function totally rationally. Man would become a rational component of the machine." Alexei Gastev Jr.

The mainstream definition of social engineering characterizes it as a discipline in social science regarding the efforts undertaken by governments, media or other private groups to influence popular opinion and attitudes. What this means is that social engineering is a powerful apparatus for enforcing ideology, guaranteeing the elite's dominance over the functioning of the whole economical system. Simply put, social engineering is an instrument at the service of economical reproduction.
In his work "Foundations of Sociometry" (1953), Jacob Levy Moreno acknowledges the importance of informational technologies over networks by observing the distorting effect of the printed page over human spontaneity. Such observation made him realize the effects of the superimposition of a "mechanical-social network" upon a "psycho-social network" in removing society from human control. Being human spontaneity at the core of social sciences, it is important for the construction and planning of human society, according to Moreno, to have full knowledge of the central infrastructure of human relationships. This is the fundamental aim of any given sociometric experiment. "The social scientist must, of necessity, acquaint himself, in the research phase, with the individuals themselves and the interrelations between them. Analysis and action, social research, and social construction, are interwoven."(Moreno, J. Levy, "Foundations of Sociometry",p.19).

What this means, especially the last sentence, is that charting apparatuses such as the sociogram, which ultimately validate the data gathered through sociometric procedures, are only as meaningful and accurate as the research process is thorough - the consequential analysis of the social diagram which ultimately conducts to intervention and action over the network is dependent on the participation of every social atom involved. Participation entails better tracing of patterns, habits and relations, in this way making social engineering all the more fine-tuned towards general productivity. If this was true for the sociogram, it is also discernible within the Social Graph's long-standing goal of mapping the Internet.

Social engineering is not, however, appanage only of capitalist societies, but of industrialist societies in general. On the other side of the Iron Curtain, Alexei Gastev, founder of the Central Institute of Labour in the USSR, was also a firm believer in the role of social engineering in rationalizing the social for efficiency purposes. Gastev perceived this process as emancipatory, since a revolution could only be recognized as such if the workers were empowered to control the work process. To this end he employed taylorist ideals to train workers to behave and think in a rational way. Taylorism, also known as the scientific organization of labor, is a management theory whose purpose is one of improving economic efficiency with the application on positive scientific laws to the analysis and implementation of workflows. Taylorism enjoyed widespread acceptance in the early stages of the Soviet Union, namely by Vladimir Lenin and Leon Trotsky. Gastev eventually materialized his utilitarian taylorist notions by building a social engineering machine, whose ways nobody to this day understands, but whose goal, if we are to accept his son's account of it, was one of turning men into rational components of itself.

Databases: Hierarchical, Relational and Graphical

In 1970, the computer scientist Edgar F. Codd proposed a new, more accessible approach to data storage systems. The relational database, which would substitute the previously in use hierarchical database, was a means of increasing general productivity: whilst in an hierarchical database data would be addressed by position, relational databases present data and relationships between them in a table format, where information is accessible by value. Each table has one or more columns which allow for other tables to retrieve its information, and are generally written using Structured Query Language (SQL).

However, with the rise of *big data*, relational databases proved not so efficient where scalability was concerned. Besides that, their lack of capacity to handle unstructured data searches combined with the difficulties with the implementation of simple queries using SQL, such as the shortest path between two points, prompted the search for new, NOSQL (Not Only SQL) solutions (Reeve, April, “Big Data and NoSQL: The Problem with Relational Databases”). Amongst those solutions is the Graph Database, implemented by Google, Facebook and Twitter. Indeed, the Social Graph is but an example of this. Within the graph database system, instead of a relational tabular structure, data is the structure and its representation occurs in terms of nodes and the relationships (links) between them (Efreim, Emil, “The New Way to Access Super Fast Social Data”).

A relevant example of "protocological control" (Galloway, Alexander, "Protocol: How Control Exists After Decentralization", p.8) would be the Open Graph protocol, which facilitates the integration of other pages within the Social Graph. It does so by authorizing web developers to embed their pages in the Social Graph, where they acquire the same functionality as other graph objects. This means that it becomes possible to access not only people and their interpersonal relationships, but also liked pages, events, photos and the links between all of them. This expansion of the sociogram to non-human nodes opens up the question about the human subject - if social engineering explains the management of social relationships, how does one explain the management of the subject's notion of self?

Soul Engineering

"The larger-than-life personalities of fearless dissidents that melted the icy heart of the Stasi officer in The Lives of Others are barely visible to the Internet police, who see the subjects of surveillance reduced to one-dimensional, boring database entries." Evgeny Morozov, "The Net Delusion"

In "Governing the Soul: the Shaping of the Private Self", one of the general problems that Nicholas Rose proposes to address concerns the social shaping of the human subject. Social thinkers such as Karl Marx and Adam Smith reflected on the relationship between social context and its inhabitant subject; sociology and psychology were not separated entities. (Rose, Nicholas, "Governing the Soul: the Shaping of the Private Self") Where these thinkers asked how human subjectivity was socially determined by the surrounding apparatus, Rose asks: "how have persons been shaped by prevailing ways of thinking about human beings and acting upon them?". With the "birth of a new area of expertise" in the area of the psy sciences, it has become evident the tendency towards the engineering of the soul - never before was human subjectivity so carefully managed, so instrumental to the general economical efficiency of society.
Rose argues that psychological sciences are that which allows for the inscription of the human soul into categorized, calculable structures. Such inscription enables power to affect change upon human subjectivity through "human technologies", which quantitatively arrange the human subject in networks of power (Rose, Nicholas, "Governing the Soul: the Shaping of the Private Self", p.8) In this sense the sociogram, as well as its contemporary surrogate, the Social Graph, might be placed under the concept of "human technology", insofar as they inscribe the subject's psy in view of a certain outcome - efficiency. Nicholas Rose underlines the consequences of these networks for the human atom in terms of infiltration of power in the human soul, actively redefining the self and its ways of thinking about itself.
The choice of the word "graph" in Social Graph is everything but innocent, as it entails ideological assumptions of rational mathematical analysis - thus representing one step further towards positivist ideals of fixed, simplified, predictable and rigid social structures. The concept of the Social Graph eerily echoes Rose's notion of psychological examination as that which allows subjectivity to become calculable. With the introduction of non-human nodes, the Social Graph is a megalomaniac attempt to fully inscribe its subjects within its rigid structure, (and would be better described as an hybrid between a relational database and a sociogram.)
With its arrogant project of turning all human subjects into rational, productive components of itself, the Social Graph might have come closer to accomplishing that which Gastev's social engineering machine ultimately failed to do. Is it possible that the Social Graph, then, is serving also the process of taking the governance of our soul a step further, to use Nicolas Rose's words? In the digital space, the management of the multitude of immaterial *produsers* calls for more efficient methods of classifying, analysing and engineering the psy. The Social Graph, despite and thanks to its blatant bi-dimensionality, is successfully transforming the digital space into the realm of the quantified subject, the privileged structure for power infiltration within the human soul. By feeding the algorithms that control the content of what we see in corporate social media platforms, it becomes the central model through which our "soul" is engineered.

Soul for sale

"I might be free to communicate, but what I express can be privatized, put under surveillance and monitored without my consent" Langlois, Ganaele, “Social Media or Towards a Political Economy of Psychic Life”

In "Social Media, or Towards a Political Economy of Psychic Life" (Unlike Us Reader, Institute of Network Cultures) Ganaele Langlois analyses the socio-economical impacts of the opening up of psychic life to the markets. The observation that social media provides a platform for the extraction of surplus off of the human psyche further confirms Rose's point according to which subjectivity

has become a fundamental aspect of economical efficiency. Langlois (p.52) references the psychoanalysis concept of 'relational approach', the process through which one opens up to the world. According to such approach, intersubjectivity, that is, our relationship with others, is what determines our identity. However, as Langlois points out, social media opens up that intersubjectivity to data processing algorithms which determine which ads, page suggestions or friends' updates we get fed. Social media become platforms for soul engineering, and relational approach appropriately gives way to the relational database logic of the Social Graph as a primary means for subjectivity formation. The commodification of user's psychic life furthers Deleuze's conceptualization of "capitalism for the product".
As previously outlined, the management of subjectivity has been a constant in all previous institutional attempts at efficiency. In this sense, social media should be understood as being the latest development of such tendency. The major upgrade, however, resides precisely in its successful capture of psychic life for economical revenue. Andrew Keen warn us that the prison of the 19th century, the Panopticon, has reappeared within the social web (or, as Reid Hoffman puts it, Web 3.0), but with a plot twist: it is now considered as pleasurable and entertaining. As "human technology", power enters the self at the level of the algorithm which determines the subject's access to information. According to Lazzarato's "Immaterial Labor", this leaves no space for innovation, for such processes highly engineer the social at the subject's expense.

III CHAPTER

Whilst social media is ideologically framed and presented as a tool for interpersonal connection, the graphical reduction of individuals to atoms prevents the formation of a shared community project (Halpin, Harry and Yuk, Hui, "Collective Individuation: The Future of the Social Web" p.106). Even though a community might be defined by something more than just the mere sum of all the parts, Social Graph's mathematical structure attempts at eliminating such dangerous fluidity, and it is this control over networks which, as stated by Harry Halpin and Hui Yuk, presents risks to the formation of a collective intelligence.
Corporate social media moguls aversion to the aforementioned fluidity echoes the Hobbesian notion of the multitude, representing the Many, as being the biggest menace to the realization of the “supreme empire”. Thus being, the compartmentalization of organic subjectivities and relationships into sterilized, quantifiable molding nodes and links serves the ideological purpose of maintaining a politically ambiguous community which, Paolo Virno warns us, left without a political public sphere, becomes vulnerable to forms of submission (Virno, Paolo, “The Grammar of the Multitude”). This is generally verifiable within post-Fordist production, where workers produce by performing basic cognitive tasks such as thinking or communicating. It is because of such reality that Virno places the concept of the “multitude” at the centre of contemporary debates around the public sphere. Opposed to the concept of the “people”, the constituent of the centralized State, unified oneness of will and action, the “multitude”, as defined by Baruch Spinoza, does not converge into One, rather it represents the plurality in the handling of community issues which accommodates for the social ad political existence “for the many, as being many”(Virno, Paolo, “The Grammar of the Multitude”).
Ned Rossiter and Brett Neilson conceive of the multitude as a concept which, intending to explain the logic behind contemporary social movements, falls under the category of the empty signifier, that is, it unifies the vastness of workers' conditions under a simple logic, much in the same line as the concept of 'precarity'. These authors underline that there is a tendency to subsume all different forms of labour within these concepts to the single logic of informationalism. Likewise, Rodrigo Rivera's “Organization of the Organizationless” criticizes Hardt and Negri's notion of the multitude as a plane of non-homogeneous singularities for failing to understand the diverse power plays within its constitution outside of the spectre of hegemony.
Although I tend to agree with Rivera, Rossiter and Neilson in recognizing the vastness of logics of

power at play within the multitude, which don't necessarily originate in capital, I believe that Spinoza's conception of the multitude allows for these intricate, complex power exchanges, a network of non-collapsable racial, gender, economical identities wherein, albeit non reducible to them, the forces of informationalism as mode of development and more heavily the forces of capitalism as mode of production, still exert their exploitative, pecuniary influence.
Deleuze's "Postscript of the Societies of Control" maps the precursory movement to the atomizing tendencies of informational capitalism. Whilst the factory walls helped the double purpose of a)keeping workers under the boss's attentive look and b)fostering the formation of politically viable communities such as the union, corporation's *modus operandi* promotes rivalry and competition under the pretext of motivation, successfully pitting the workers agains each other.
Andrew Ross's "In Search of the Lost Paycheck" references the avant-garde analysis which sees capital owners' efforts to transfer work outside of factory walls as an attempt to get rid of unionized labor movements, which recent studies about the decreasing power of the union clearly show are a serious menace to the *status quo*. Florence Jaumotte's and Carolina Osorio Buitron's "Power from the People" begins with the simple premise which posits that the decline in unionisation accentuated income discrepancies with an increased concentration of capital on the top incomes. The authors support their findings that lower rates of unionisation are linked with increase in top wages between 1980 and 2010 with the argument that if, as is widely accepted, unionisation affects low and middle waged workers, then this means that the available share for top incomes increases. As is efficiently outlined by this article, the main channels through which unions affect wage inequality are wage dispersion (equalization of wage distribution), unemployment (collective bargaining of working conditions help in securing employment rates) and redistribution (politically strong unions actively enforce social and labor rights, either by supporting parties with a compatible agenda or pushing for all political parties to engage with labor rights' policies). Being thus, it logically occurs that lower rates of unionisation translate in a decrease of the workers negotiating powers when demanding better wage redistribution, causing it to concentrate at the top.
If we are to accept these conclusions, it becomes evident how lowering the power of the union and of the working class in general becomes extremely profitable for capital owners. Andrew Ross goes so far as to predict that waged labour will soon be perceived as a temporary chapter in working class history, and that for only a small minority, amidst unpaid domestic work and non-waged work in the informal sector, the latter which is expanding. Beyond factory walls, which nonetheless are still a reality for millions, the digital multitude inhabits the *operaista* "social factory", where value is extracted from our communicative, cognitive and co-operative work.
Ned Rossiter and Brett Neilson alert, however, to the dangers of subsuming all informational labour under an exploitative experience. In so doing, one fails to observe the potentialities for political organization emerging in these communities. It is precisely these potentialities which I will now explore within the context of politically organizing the multitude of social media *prosumers*. As was previously outlined, this is a project which meets with seemingly unsurmountable obstacles. However, it is necessary to pursue the public sphere of our publicness without collapsing the Many into the category of the One, refusing the commodification of the multitude's plurality into rigid, controlled structures of unified experience. Of the obstacles that inhabit the space of the multitude, the most complex might be the power asymmetries within: how to organize and fight for the representation of the Many and its all-encompassing architecture of gender, race and economical minorities without risking the flat, highly unequal existence of the One? And, as if the very constitution of the multitude didn't present enough challenges to this political endeavour, one must not discard the reality of most social media users who are not aware of their own working condition. The postindustrial apparatus has successfully found ways to label our exploitation under the "social" tag - we participate willingly, but not always knowingly. Is it possible to organize the workers who are not even aware they are workers? The impossibility of the task, however, should not distract from its necessity, rather it should enhance the urgency of counteracting corporate social media totalitarian tendencies.

Piecemeal Social Engineering and some case studies

Looking back into the notion of social engineering, one will find in Karl Popper's “Open Society” an approach to this concept which might outline the method most favourable to the undertaking of such an endeavour. Popper distinguishes between the notions of Utopian Social Engineering and Piecemeal Social Engineering. Utopian Social Engineering dictates that all rational actions must be taken in light of a ultimate aim. Thus, this aim must be the first thing to be specified and only then can a plan be drawn. Politically speaking, this aim represents the Ideal State. Piecemeal Social Engineering, on the other hand, may or may not have an idea of the Ideal State, but takes such stage as distant. Therefore, it aims to search and fight the immediate problems in society, avoiding unhappiness whenever possible, doing the possible to "improve the lot of men" instead of postponing action until more favourable conditions are reached. In Popper's opinion, this approach is the most methodologically reasonable.
Several projects in recent years have attempted to decode the riddle informational capitalism poses the decentralised, globalised, immaterial *produser* of the digital network: from the International Data Union to Networked Labour, all have struggled with the aforementioned challenges. I will analyse them vis-a-vis the Freelancers Union, an american attempt at unionising another iteration of post-factory work. This comparison will serve the purpose of more clearly mapping the specificities of the social media *produser's* struggle when attempting to translate traditional union structures.

→ International Data Union – What is it? Why didn't it go forward? What could've been done?
→ Networked Labour – What is it? What is it currently doing? Why is this an interesting approach? What are its shortcomings?
→ Freelancers Union – What is it? What did it achieve? What makes it difficult for the other two to achieve the same?

CONCLUSION