Contested Visions: Digital Discourses as Empty Signifiers from the 'Network' to 'Big Data'

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Abstract

This paper engages with two key concepts that define our digital cultures: the 'network' and 'big data'. It critically considers how these concepts are often framed by techno-utopian or techno-dystopian political understandings of historical transformation. In the last years, the relationship between technological discourses and political visions, has lead to the emergence of critical research in the field (Mosco, 2004; Hindeman, 2010; Morozov, 2011, 2013). This research has shown that we cannot fully understand digital discourses without considering the very Western belief that technological innovation necessarily leads to new political possibilities. By drawing on the findings of a cross-cultural ethnographic research amongst three different political groups in Europe, this paper argues that current research in the field has focused too long on how digital discourse is shaped by Western meta-narratives of technological progress. This is to detriment to a careful consideration of the fact that different political actors discorsively construct digital technologies with reference to different political visions. Understanding these contested visions, the paper will show, is of central importance as it could enable us to appreciate that digital discourses have become today 'empty signifiers' (Laclau, 1996), which define the basis of contemporary hegemonic struggles.

Keywords: digital discourse, network, big data, ethnography, activism

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Introduction

The very history of the internet has been defined by messy, unpredictable and contradictory tensions which saw libertarian discourses of openness and freedom come together with the discourses of the military science about control and security (Castells, 2001; Curran, 2012). With its tensions and contradictions, the history of the internet sheds light on the fact that internet technologies have been entrenched with techno-utopian or techno-dystopian political discourses. On the one hand these technologies seem to hold the key to meaningful, and democratic social change, they are seen as technologies of political empowerment and liberation able to re-structure the very organization of society. On the other hand, internet technologies are seen as reinforcing corporate power and state control and advancing new forms of domination.

This paper engages with two key concepts that have come to define our digital cultures: the 'network' and 'big data'. It critically considers how these concepts are largely shaped by the Western digital discourse, which assumes that technological innovation necessarily leads to new historical and political possibilities. The analysis will draw on the work of those scholars who have de-constructed digital discourse (Mosco, 2004, 2014; Hindeman, 2008; Morozov, 2011, 2013) and will argue that, athough insightful, current communication research on digital discourse has focused too long on Western meta-narratives of technological positivism. This is to detriment of a careful consideration of the fact that digital discourse is constructed by different political actors according to different, and context-specific, political visions.

This paper draws on an ethnography of three political collectives and argues that scholars have much to gain if they understand digital discourses as 'empty signifiers' (Laclau, 1996) . The concept of 'empty signifier' shares many similarities with the concept of 'floating signifier', which became popular within structuralist thought (e.g. Levi Strauss, 1950). The notion was used to address those signifiers that are capable of bearing multiple meanings. As this paper will argue, both the concepts of 'network' and 'big data' are indeed floating signifiers; they bear multiple meanings and are entrenched with both techno-utopian and techno-dystopian visions of political possibility.

However, as this paper will show, the network and big data are not only floating signifiers, but empty signifiers. The concept was used by Laclau (1996) in his work on *Emancipation/s*, to argue that there are some signifiers, that are not only floating signifiers in constant movement and transformation, but that they have a partial meaning attached to it (Simons, 2011:207), and that this meaning is often political in nature. Laclau (1996) believed that empty signifiers defined hegemonic struggles, as different political forces tried to invest them with their own political meanings. As this paper will show, concepts like the 'networks' and 'big data' are indeed empty signifiers because they are embedded by different political actors with very different political meanings. By arguing that the concepts of the 'network' and 'big data' need to be understood as empty signifiers, the aim of this paper is not to dismiss contemporary digital thought or to argue that these concepts are not useful theoretical and analytical tools in the understanding of the techno-historical transformations of our times. Rather, the aim of this paper, is to show that digital discourse is today a contested terrain of imagination and practice, which defines the basis of much of contemporary hegemonic struggles.

Networked Dreams, Political Realities: The Rise and Fall of the "Network" as Techno-Utopian Discourse

The Network as Political Possibility? From the 1990s to Today

The development of internet gave rise to critical questions about the ways in which digital networks were giving rise to new forms of social and political organization. At the beginning of the 1990s a variety of scholars started to argue that the new information highways were giving rise to a new way of understanding politics, which challenged the nation-state (Negroponte, 1995; Toffler, 1995). At the time, Castells (1996) was perhaps one of the first to popularise the concept of network to make sense of this transformation. He argued that the internet had radically transformed society as it enabled a situation for which the *network* became a privileged and more flexible mode of social and political organization. According to him, the logic of the network permeated every level of social life and significantly transformed the way in which we understood and experienced politics, from corporate strategies to state policies, to the complex realities of social movements.

Influenced by his work, in the last two decades the concept of network has come to the fore as an important analytical and methodological tool in the study of digital politics. During the 1990s a wide variety of scholars referred to the concept in order to shed light on the rise of the global justice movements, and their political imaginations. The new movements, were defined by a new form of networked struggle, which did not rely on discipline, but on creativity, communication, and self-organised cooperation (Hardt and Negri, 2000; Castells, 1997; Rheingold, 2002). This new type of political participation, according to many, was fundamentally different from earlier social movements, and deconstructed older, identity-based forms of political engagement and belonging (Juris, 2008; Day, 2005; Wolfson, 2014). At the heart of these works lied the overall assumption that it was the new information technologies that had radically transformed older forms of political participation and action, and that if we wanted to understand the new movements we needed to look a the more flexible and networked forms of political belonging and participation that internet technologies had enabled.

At the beginning of the 2000s therefore we have seen the emergence of different works in the field that developed a new conceptual framework to make sense of the interconnection between these new forms of political organizing amongst activists and internet technologies. This is particularly evident if we consider the emergence of concepts such as the 'multitude' and 'swarms' amongst the autonomous Marxist (Hardt and Negri 2000, Virno 2004) or the idea of 'smart mobs' as developed by Rheingold (2002). Whilst departing from completely different theoretical and epistemological traditions, these concepts were used to argue that internet technologies had become the material basis for the enactment of new forms of social organizing. These concepts were grounded on the belief that the 'network' had become a new model of political organization and was offering new political possibilities for progressive social change.

After 2005, with the development of Web 2.0 technologies the digital discourse of the network has been further reinforced. The rapid growth in usage of social media technologies lead different scholars to conclude that the 'power of networks' was transforming the world. Whilst Tapscott and Williams (2006) looked at how the new technologies gave rise to new forms of mass collaboration that challenged older economic models, Shirky (2008) believed that social media were creating the basis for the development of new forms of collective organizing. These works shared a lot of lines of similarities with Benkler's (2006)

contribution on the 'wealth of networks'. According to Benkler (2006), internet networks have become the material support for the development of a more egalitarian society with important consequences for democracy and social inclusion (2006:473). In contrast to those scholars that saw the internet as disorganized and caothic, Benkler (2006) argued that we needed to appreciate the social intelligence of networks and how the networked public sphere worked to create a more just and democratic society (2006:212).

The 2008 financial crisis challenged of course the very idea that we were living a 'moment of opportunity' (Benkler, 2006) and radical social change. Yet the digital discourse about the liberating powers of the network found a new reason to be, as the world witnessed the rapid rise in mass protests across the world from Iran to Egypt, Iceland, the U.S and Spain. The work of Castells (2012) once again became particularly emblematic of this cultural trend. The opening sentence of his 2012 book, is particularly revealing:

> "No one expected it. In a world darkened by economic distress, political cynicism, cultural emptiness and personal hopelessness, it just happened. Suddenly dictatorship could be overthrown with the bare hands of the people, even if their hands had been bloodied by the sacrifice of those fallen. Financial magicians went from being the objects of public envy to the targets of universal contempt. Politicians became exposed as corrupt liars. Governments were denounced. Media were suspected. Trust vanished…[….]" (Castells, 2012: 1)".

According to Castells (2012) this radical social change was made possible by the fact that internet networks had created a new space of autonomy for the exchange of information and the sharing of feelings of collective outrage and hope and facilitated the development of a new politics of resistance. In the last few years, a wide variety of scholars have turned their attention to the analysis of the relationship between social media activism and the mass uprising across the world, and have started to consider how the networking logic of these movements was coming together with a new logic of aggregation (Juris, 2012) assembly (Gerbaudo, 2012) or 'connective action' (Bennett and Segerberg, 2012). Within these works, one perceives the will to challenge and move beyond the concept of network (Gerbaudo, 2012; Lovink, 2012), yet despite the effort of some, current research in the field of digital politics and social media activism continues to be largely reliant on the concept of 'network' (Miller et al, 2015; Sancho, 2014).

The Digital Discourse of the Network and Techno-Utopianism

The debates of the last decades have thus been shaped by the understanding that the 'network' represented a new form of social and political organisation. Yet, as Latour (1993) has argued, there is nothing new in the network as form of social organisation and any claim to novelty must be found in our own Western bias that obliges us to experience time and historical transformation as a revolution that starts over and over again (1993:70). A similar understanding could also be found in the work of Diani and Della Porta (1999) who explored the realities of social movements. Indeed, by looking at the organisation of environmental activists in Milan in the 1980s, Diani and Della Porta contended that the logic of networks was intrinsic to their social realities long before the advent of the information age (1999:117-134).

If networks as political and social organization always existed then why during the 1990s was the concept of network used to make claims of historical possibility and transformation?

The answer to this question, as argued elsewhere (Author, 2015a; 2015b) can only be found in the understanding of the network as a 'techno-utopian' discourse. As Segal has argued (1985) - from Thomas More to the nineteenth-century thinkers like Saint-Simon, Comte, Owen, Fourier, and of course Marx and Engels (Segal, 1985: 2) – Western societies have been shaped by the understanding that technologies, and in particular new technologies can bring important transformations in terms of social justice and democratic emancipation. What is fascinating about these techno-utopian discourses is that they are tightly interconnected to processes of technological fetishism whereby humans invest technological objects with specific forms of powers, and believe that these objects are able to move and shape the world (Harvey, 2003: 3; Mosco, 2004; Morley, 2006).

It is only by considering the interconnection between techno-utopianism and techno-fetishism that we can fully appreciate the 'network' as digital discourse. In fact, if we look at works like the one of Castells or Hardt and Negri, which have been so influential in shaping understandings of digital politics, the network is highly fetishized and entrenched with techno-utopian understandings of progressive social transformation. Within these works, as argued (Author, 2015), the network becomes an autonomous political agent, which is defined by the conjunction between a self-organizing collective intelligence and internet technologies and is capable of transforming politics by fostering new and horizontal forms of political organization.

Once we realize that the network operates as powerful digital discourse, we need to critically consider the different impacts this discourse has on everyday political practice. As

Gerbaudo has shown, for instance, within the indignados and Occupy movements, the discourse of the network enabled the creation of a 'soft' type of leadership (Gerbaudo, 2012). On the contrary, as Trere and Barassi (2015) have shown, the ideological discourse of the network was used by the 5SM in Italy to justify and reinforce authoritarian political practices.

Liberation or Domination? Techno-Utopian and Techno-Dystopian Visions in the Shaping of Digital Discourse

The understanding that the network is a digital discourse shaped by the interconnection of utopian and fetishists ideas of technological change and progress is influenced by those works in communication research, which have considered the discursive construction of digital technologies. Mosco's (2004) ground breaking book on the 'digital sublime', for instance, has demonstrated that the Western fascination with the 'newness' of technologies has enabled us to construct mythical understandings of how digital media are supposedly socially transformative and democratically empowering.

Following a similar line of reasoning Hindman's (2008) talked about the importance of deconstructing 'the myths of digital democracy'. He argued that much of digital discourse is shaped by the understanding that the internet is democratizing politics because it is providing citizens with a new 'political voice' by giving them the possibility to participate to society by sharing and expressing their opinions and ideas. In his book he challenges these understandings, and in particular he deconstructs Benkler's notion of 'networked public sphere' by showing how within the infranstructure of the internet political voices are not equal.

Whilst Hindman (2008) largely focused on the concept of 'political voice', Morozov (2011) highlighted the idea of political 'delusion'. In his book, he focused on Green Revolution in Iran, and argued that this uprising was largely shaped by the Western political delusion in the democratic and empowering potential of social media, especially Twitter. In his book he deconstructs this discourse, and argues that social media were used as a tool of governmental surveillance and repression as well as for political organisation and mobilisation.

All these works are of key importance as they highlight not only how digital discourse is shaped by techno-utopian visions of political transformation, but also how Western understandings of political transformation is largely shaped by digital discourse. What we are missing from the current literature on digital discourse, is a careful appreciation that digital discourse have come to bear a plurality of meanings. In fact, much of the current

communication literature focuses on meta-narratives of technological positivism, and only rarely consider the fact that digital discourses are simultaneously shaped by techno-utopian and techno-dystopian political visions.

As Segal (1985) has shown, however, techno-utopianism is only one side of the coin in debates about technological progress and impact. Western Social Thought has not only been dominated by utopian understandings of technological progress, which sees technologies as directly interconnected to new forms of social emancipation and justice, but also by techno-dystopian understandings of technologies as tools of suppression and control. Indeed, as Gordin et al. (2010) have shown we cannot really understand utopian visions without appreciating their dystopian counter parts.

The fact that techno-utopian and techno-dystopian discourses are the two sides of the same coin, is evident in scholarly debates about the network. Within the works of both Hardt and Negri (2000) and Castells (2009) the network is not only an agent of liberation and political possibility but it also an agent of political control. For Hardt and Negri (2000:160-183) 'network power' was at the heart of the new World order defined by U.S. Sovereignity. For Castells (2009), in a global context in which mass communication has moved beyond traditional media to include the internet and mobile technologies, it is of fundamental importance to highlight the networks of power that are constructed by global multimedia business, and understand how these relate to national and international politics (2009:71-99). Therefore, the network within both works was seen as an agent of resistance as well as an agent of domination.

The understanding of the network as reinforcing new forms of power and domination became a wide spread discourse in the 2000s. If we look at the communication literature of the last decade we find many scholars who argue that digital networks far from being democratic, were creating a situation whereby the production of user data was systematically surveilled by corporations and governments (Andrejevic, 2004, 2012; Terranova, 2000, 2004; Fuchs, 2008).What is particularly fascinating about these works is that – in contrast to the techno-utopian belief in the power of the network –they were entrenched with dystopian visions about corporate control and digital surveillance. Here the works of Andrejevic (2004, 2009) and Jarrett (2008) are particularly revealing. Both relied on Foucualt's notion of 'panopticon' (Foucault, [1985] 2012) and Orwells' ([1949] 2016) notion of Big Brother to argue that through the extensive use of web 2.0 technologies individuals were not only constantly 'surveiled' for corporate or political reasons, but were also increasingly adopting practices of co-surveillance associated with marketing and law enforcement. According to

Andrejevic (2004, 2009), therefore, web technologies can be seen as fostering the internalization of the strategies used by corporations and governments, and their deployment in the private sphere. We can find a similar argument also in the work of Jarrett (2008) who argued that interactivity acted as 'disciplining technology'.

In 2013, with the Snowden revelations, not only the techno-dystopian visions of total digital surveillance seemed to find the materialization in the political reality of the NSA, but as Lyon (2014) has shown digital surveillance seemed to be largely augmented by the new, techno-historical context of 'big data' (2014: 4). Here below I want to engage precisely with the concept of big data and to show, that similarly to the concept of network, also this concept has been entrenched with techno-utopian and techno-dystopian discourses of liberation and domination.

The Rise of Big Data: From Techno-Utopian Dreams of Scientific Accuracy to Dystopian Visions of Surveillance

Techno-utopian Dreams of Scientific Accuracy and the question of Data

The notion of 'big data' was introduced to start to make sense of the concentration of data in large datasets, which required supercomputers and hence the term 'big' data (Manovich, 2011). However, in the last five years, it has been used to signify different technological and cultural processes that enable the storage and organization of data. According to boyd and Crawford (2012) cultural narratives of big data have been shaped by two interconnected beliefs: a) the metadata produced by users is 'raw data', or in other words is a primary form of data, which has not been subjected to processing and manipulation b) algorithmic logic and larger datasets offer us a precise and accurate type of knowledge, which enables us to frame individual and social patterns and use this knowledge for different purposes. The underlying belief is that big datasets offer a higher form of intelligence and accurate knowledge that was not possible before (boyd and Crawford, 2012:663).

If we consider one belief at the time we would quickly be able to shed light on the ideological dimensions of such beliefs, and on the fact that we are confronted with yet another example of techno-utopian discourse. In the first place, as Gitelman and Jackson (2013) have rightly argued 'raw data' is an oxymoron, a rhetorical figure which juxtaposes two concepts which are in fact contradictory. There is no such thing as 'raw' data. Most of

the data that is collected is metadata, in other words, it is data that describes other 'data' (e.g. clicks, personal info etc.). Hence at the time of collection, data has already been organized according to specific systems and structures.These systems and structures have been shaped by specific cultural values and beliefs. Hence all processes of data collection need to take into account not only how specific information structures frame data but also how data collection itself is framed.

In the second place, as different scholars have shown (Manovich, 2011; boyd and Crawford, 2012; Crawford, 2013; Gitelman and Jackson, 2013; Boellerstroff, 2013) we do not have any evidence that supports the understanding that larger datasets offer us a precise and accurate form of knowledge on individuals. As boyd and Crawford have argued:

> "too often, Big Data enables the practice of apophenia: seeing patterns where none actually exist, simply because enormous quantities of data can offer connections that radiate in all directions." (boyd and Crawford, 2013: 668).

Of course through the collection of digital data we can trace connections and patterns, and most probably identify key issues. Yet the knowledge we acquire from these connections and patterns is not necessarily accurate, as this type of data is a type of data, which is systematically taken out of context (boyd and Crawford, 2012:670-671; Boellerstroff, 2013). Hence, as Couldry and Powell (2014) have argued we are confronted by a 'potential disconnect between system and experience'.

If larger data sets do not necessarily lead to greater accuracy, then how can we understand this techno-utopian discourse? According to Mosco (2014) and Van Dijck (2014) such an understanding needs to be found in a profound *digital positivism*, and in the idea that data will speak for itself. Behind this cultural narrative lies a deeply problematic political economic system of *surveillance capitalism* (Mosco, 2014), which is based on the belief that it is essential to 'mine the life' of citizens (Van Dijck, 2014), to gather, store, and control larger and larger amounts of digital data. Both Mosco's and Van Dijck's works are crucial when we want to start tackling the ideology of big data. Yet what is missing from these works is a careful appreciation that the ideology of big data is not only defined by techno-utopian visions of digital positivism but also – as we shall see here below - by techno-dystopian ideas of digital surveillance.

Dystopian Visions of Surveillance: From DataVaillance to the Quantified Self

As argued above, the understanding of digital technologies as tools of surveillance and control is of course not new and became a widespread discourse within the communication literature of the 2000s. However, in the last five years, following the Snowden affair a more complex and dark scenario emerged, and scholars have intensified understandings of digital surveillance. In fact, different scholars have started to turn the attention to the multiple ways in which changes in digital technologies augmented the rise of new, technologically assisted forms of governance (e.g. border policing; health surveillance etc.) and have argued that digital surveillance impacts on every aspect of citizen life (Raley, 2013; Hartzog and Selinger, 2013; Andrejevic et al., 2013; Staples, 2013; Lyon, 2014).

Either indirectly or indirectly these understandings are based on Clarke's (1988) definition of 'dataveillance'. In the mid Eighties, Clarke coined the term 'dataveillance' to describe a social and political transformation which saw the reduction in practices of face to face surveillance and an increase in the surveillance of citizens' data. According to Clarke (1988) the increased surveillance of people's behaviors was made possible through the rise in data trails that their behavior was generating. In sum, his work has shown not only that through everyday practices, citizens' left behind personal traces that enabled their digital surveillance but also that governing bodies and institutions encouraged and reinforced these digital practices.

In the last few years, therefore we have seen the emergence of key research in the field that has highlighted different dimensions of dataveillance, from the analysis of the interconnection between private and public bodies in the shaping of digital surveillance (Hintz, 2014) to the analyses of self-tracking technologies and the making of the quantified self (Smith, 2016; Lupton, 2016). The underlying assumption behind these works is that a new culture of surveillance is emerging and threatening people's privacy, and autonomy.

The recent debates about digital surveillance are insightful and critical, and shed light on some of the techno-historical complexities of our times. Yet we cannot fail to notice that these works are influenced by techno-dystopian ideas of the inevitability of digital surveillance, and often do not take into account how people understand and negotiate with big data. This latter point emerges very well in the work of Couldry and Powell (2014) as well as in the one of Kennedy et al. (2015), who argue that understandings of big data need to consider not only the potential disconnect between system and experience, but also the multiple ways in which alternative publics are appropriating 'big data' and transforming its

meaning. These understandings are particularly important if we want to challenge, as Sharon and Zandbergen (2016) have argued, the data-fetishism intrinsic to much research about big data.

In understanding the discourses about big data than we need to highlight how these discourses do not take into account the meaning data has for people, and the multiple and complex ways in which people negotiate and resist to data flows. Between 2007 and 2011, I carried an ethnographic research amongst activists in the UK, Italy and Spain, which continued with follow up interviews and a digital ethnographic research until 2014. The research project enabled me to shed light on the different ways in which activists have been reacting to the web developments of the last decade. The research design was grounded on the belief that political collectives, which were shaped by different political cultures, would react differently to web developments.

The three organizations were, therefore, chosen because they largely differed in political cultures and ideologies. The first organization is the *Cuba Solidarity Campaign*, a British international campaigning group that was created in 1978 and is attached to the political ideologies of the British Trade Union movement. The second organization is *Ecologistas en Acción*, an environmental activist group that was funded in 1998 during the global justice movements, and is based on a political culture that combines radical left ideals with environmental awareness. The third organization, the *Corsari*, was created in 2008 and is embedded in the Italian autonomous movement, which is based on political culture that highlights the importance of self-management, political autonomy and direct action.

One interesting element that emerged during fieldwork, as argued elsewhere (Author, 2015) was that although activists were clearly concerned about the problem of digital surveillance they also believed that there were many margins for resistance and freedom. This is not only because they could limit the type of information that they shared on the web, but also because they strongly believed that the 'tracing of digital identities' does not necessarily mean that governments and corporations have the control of personal identities. This latter point emerged particularly well in an interview with Davide, an activist involved in the autonomous movement in Italy:

> **D:** Of course companies try to appropriate and exploit our information, yet they don't really succeed in framing our personal identities. The problem that companies face is that your individual identity is often different from your

> digital identity. You can be a friend on Facebook of the PD (Democratic Party in Italy), to monitor their activities but in truth hating them. You could be playing an online game and not being interested in gambling [...] there is no exact correspondence between online activities and real life, although they make you believe that there is.

As Davide highlighted, people's practices can be unpredictable, and thus the construction of metadata does not necessarily translate into a mirror of social reality, especially because metadata does not uncover the human 'intention' or reasoning between specific online choices. This understanding enables us to appreciate the fact that the 'tracking of digital identities' is not always that effective and all-encompassing as the 'panopticon' model of big brother surveillance wants us to believe (Andrejevic, 2009).

In understanding the techno-historical developments of our times, therefore, we need to appreciate the fact that people understand and use technologies in multiple and unpredictable ways, which vary from context to context, from situation to situation. Consequently, analyses of big data require a greater cultural sensitivity, and should highlight the multiple and complex ways in which people are understanding and negotiating with the datafication of everyday life. As the next and final part of this article will show, one way in which we can start re-introducing understandings of agency and cultural sensitivity in the analyses of big data is by appreciating that digital discourses are contested terrains of meaning, and have come to define much of contemporary hegemonic struggles.

Contested Visions: Digital Discourses as Empty Signifiers

The Network as a Contested Ideology

As I approached fieldwork in 2007, I was influenced by the scholarly debates on the importance of 'networks', and in particular by the works of scholars like Castells (1997) and Juris (2008) who had argued that networking logic had significantly transformed the realities of social movements. Fieldwork within the Labor movement in the UK revealed that this was indeed the case, and that the discourses about digital networks were transforming old political ideologies. This latter point emerged particularly well as I was trying to make sense of how participants understood the concept of 'political solidarity'. During the Thatcher years, as various participants explained to me, solidarity was seen as a fundamental signifier of the

Labor movement in Britain. This was particularly true, when Thatcher made solidarity demonstrations and strikes illegal, in order to counter-act the wave of workers' discontent that was sweeping across the country. Solidarity in that context meant political opposition to the injustices of the conservative government, and coalition amongst workers. Furthermore, at the time, the concept of solidarity was also attached to the socialist beliefs of the Third International, and therefore to the international Labor movement.

During fieldwork solidarity as a rhetorical discourse was being re-defined through the logic of networks. In contrast to the socialist logic of solidarity, which was largely shaped upon the idea of collective identity amongst workers, when talking about political solidarity, participants emphasized the importance of developing a broad campaign that included people from various political backgrounds. In constructing a new understanding of political solidarity – which was based on an idea of joining forces for a common interest no matter if the people involved in the struggle came from conflicting backgrounds – participants discursive practices were directed at the *systematic and conscious deconstruction of the jargon of political identity*. Despite people were discursively re-shaping their understanding of political identity in more flexible and networked ways, they still believed in the hegemonic project. For them, political and digital networks between social movement actors, therefore, was still anchored to the idea that it was of central importance to build a collective, common struggle, able to achieve validation from the state.

During my research within the *Corsari* and *Ecologistas*, I realized that the discourse of the network as a space of 'political possibility' varied enormously from context to context . Within both political contexts, the logic of network was used not merely to reinforce ideas of 'political solidarity', as it happened in the context of CSC, but more significantly to reinforce ideas of political autonomy. The network was seen as a way to enable different organizations and individuals to 'be exactly what they were', without having to have to abandon their political identity in the pursue of a collective, common sense of belonging. In contrast to the CSC, the political ideologies of the *Corsari* and the *Ecologistas* were not anchored in the idea that the network was an organizational structure that would enable them to achieve recognition from the state. On the contrary, influenced by the discourses of post-foundational politics (Holloway, 2002; Day, 2005) they believed that the emancipations of political identities are constantly instrumentalized by the state. For them, the network was a political possibility that enabled the construction of different alternative models of being and organizing together.

By comparing the different political imaginations that were attached to the network, My ethnographic work revealed that the digital discourse of the network was a contested space of meaning. In fact, activists not only had to come to terms with the tension between their digital discourses on the meaning of networks and the digital discourses constructed by other movements, but they also had to make sense of the fact that their digital discourses about the power of networks clashed with the ideologies promoted by corporate interest and web developers. As argued by Fisher (2010), the network logic dominated the world of business, and the network was seen as the expression not only of new participatory consumer engagement, but also of new forms of capitalist production, consumption and exploitation. By drawing on the work of Boltanski and Chiapello (2005), Fisher (2010) argued that the digital discourse of the network worked as a form of capitalist justification and legitimation. During fieldwork, it became clear that activists were aware of the ways in which the network discourse was reinforcing new forms of corporate exploitation. Still they invested the network with their own cultural meanings. By looking at the tensions between different visions of networks, therefore, my research revealed that digital discourse cannot be understood as a meta-cultural narrative (e.g. see Mosco, 2004, 2014; Hindman, 2008; Morozov, 2011, 2013) but rather as contested terrain of imagination and practice.

Digital Discourses as Empty Signifiers, and the Hegemonic Struggle for Big Data

One way in which we can make sense of the contested meanings that are attached to dogotal discourse is – as Stalder (2006:169) has argued in his critique to Castells – by understanding that concepts such as 'network' and 'big data' are in fact 'empty signifiers'. The concept of 'empty signifier' is tightly interconnected with the concept of 'floating signifier', which was used within structuralist thought (e.g. Levi Strauss, 1950) to address those signifiers that do not have a distinctive meaning and are capable of bearing multiple meanings. However, in 1996, with his work on *Emancipation/s*, Laclau (1996) has argued that the difference between the floating and the empty signifier is a structural one, while the floating signifier is in constant movement and transformation, the empty signifier has a partial meaning attached to it (Simons, 2011:207).

Laclau (1996) powerfully suggested that our societies depend largely upon 'empty signifiers', and that 'empty signifiers' are largely political, and they define the basis of hegemonic struggles. In order to prove his argument he took as example the concept of 'democracy'. 'Democracy' is an empty signifier because it is a concept that is essentially

ambiguous. Empty signifiers are ambiguous, and represent the power of the absence, because instead of reflecting reality, they are absent from it (1996: 38-46). Despite not reflecting reality 'empty signifiers' still have a fundamental meaning for human beings; their absence has an immense power. Laclau's insight lies in the fact that he understands hegemony as the processes through which 'different forces attempt to fix meanings to these empty signifiers' (1996, 38-46).

If we look at the digital discourses of the network, as argued above, we would quickly realize that in the last decade social movements and power forces alike have tried to fix it with a meaning. The type of meaning that they tried to fix was largely dependent upon very different political visions. It is for this reason that we need to appreciate the fact that, digital discourses have become the basis of much of contemporary hegemonic struggles. This understanding is particularly important today as we try to make sense of the techno-historical transformations brought about by big data.

As mentioned above, in the last two years, scholars have argued that when talking about big data we need to critically engage with notions of 'reflexivity' (Couldry and Powell, 2014), 'agency' (Kennedy et al, 2015) and to take into account the multiple ways in which social actors are making sense of data (Sharon and Zandbergen, 2016). These questions have become particularly important amongst those scholars working on social movements and data activism (Schrock, 2016; Baack, 2015; Milan, 2015), which have shown how activists are not only finding ways to negotiate with big data, but their appropriating discourses of data to imagine and create new political and technological possibilities. The understanding of these processes of negotiation and political imagination, can enable us to move beyond techno-utopian and techno-dystopian visions of historical possibility of big data, and appreciate the unpredictability and complexity of the techno-historical developments of our times.

Conclusion

This paper has focused on two different concepts that define our digital cultures: the concept of 'network' and the concept of 'big data'. By exploring the history of these concepts, the multiple ways in which they have been applied and understood, the paper has argued that these concepts have been largely shaped by techno-utopian and techno-dystopian discourses of political possibilities. In highlighting the techno-utopian and techno-dystopian political visions that define concepts such as 'network' and 'big data', the intention of this paper was

not to argue that they are not relevant to an analysis of digital culture. On the contrary, when scholars like Castells (1996, 1997) or Hardt and Negri (2000, 2001) were arguing that the network was enabling the rise of new forms of resistance as well as the formation of new structures of power, they were indeed describing important social and cultural changes. Similarly, when scholars argue that big data is enabling a new politics of intrusive digital surveillance into people's life (Lyon, 2014) they are highlighting some critical impacts of technological innovation. Hence there is no doubt that these concepts find validation in the political realities we live in and shed light on the political complexities of our digital ecologies. Yet when we look at concepts such 'network' and big data' we need to appreciate them also for their underlying ideological component. Technological change is unpredictable, it varies from context to context from situation to situation, and the pursuit of a general concept to explain this transformation is indeed 'utopian'.

One way in which we can challenge techno-utopian and techno-dystopian visions of digital change, is by focusing on digital discourse and by highlighting the fact that digital discourse is constructed by different political visions, which vary from context to context, from situation to situation. As this paper has argued, within the everyday lives of social movements, not only digital discourses vary from movement to movement but activists need to make sense of how their political imaginations of technological change clash with the ideologies of digital technologies promoted by power forces. Understanding these contested visions is essential if we want to appreciate the fact that digital discourses have become today 'empty signifiers' (Laclau, 1996), and define the basis of much of contemporary hegemonic struggles.

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