THE RESEARCH POLITICS OF SOCIAL MEDIA PLATFORMS

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'This is the first time the world has seen this scale and quality of data about human communication', Marlow says with a characteristically serious gaze before breaking into a smile at the thought of what he can do with the data. For one thing, Marlow is confident that exploring this resource will revolutionize the scientific understanding of why people behave as they do. His team can also help Facebook influence our social behaviour for its own benefit and that of its advertisers. This work may even help Facebook invent entirely new ways to make money.

'What Facebook Knows' http://www.technologyreview.com/featuredstory/428150/what-facebookknows/

In June 2012, the *MIT Technology Review* published 'What Facebook Knows' – a story about Facebook's Data Science Team headed by Cameron Marlow (see citation above). An interdisciplinary group of mathematicians, programmers and social scientists, the Data Science Team is in charge of understanding the massive amount of user information that Facebook collects. The team, of course, does not follow purely scientific goals; their purpose is to develop new markets based on the new knowledge derived from collecting, storing and analyzing the massive amount of human data that corporate social media has made reachable. While such ambitions obviously raise serious questions about the privacy of Facebook users, in this article we focus on how the Data Science Team's agenda also raises substantial critical questions for media scholars.

Corporate social media platforms may seem to be like an open book: on their ever changing interfaces we see the unfolding of an amazing array of communication acts, from mundane gestures to revolutionary ones, from intimate exchange to the rise of new global public spheres. Yet such transparency is only superficial: it presents but one aspect of corporate social media platforms. From a critical perspective, it is necessary to enter the belly of the beast, so to speak - that is, to examine how so many acts of communication are technologically enabled or encoded within media objects for their 'platforming,' i.e., for their circulation and promotion across social media platforms. The first challenge is ontological, in that it requires that we switch our attention away, for a minute, from *what* is being said (posted, commented, and so forth), to *how* it is being processed and rendered. In so doing, we must expand from the study of communication as signs or discourse to include the study of communication as data collection, storage and processing. The second challenge is consequently methodological, given the proprietorial enframing - or some might say enclosure - of the communicative act on social media. To address such concerns we interpret social media's digital object (one that is constituted by links, videos, posts, images, 'like' buttons, etc.) as the operative site of the commercialized, communicative act - an instance of what we term thick data (as opposed to big data). We argue that the *digital object*'s thick layers of data allow us to trace the articulations of technical, corporate and media logics, and thus to identify some of the new forms of power yielded by corporate social media platforms.

Enframing Communication

Corporate social media have redefined communication - and not just in terms of offering users some flexible tools of self-expression. This is why it is a mistake to see social media as mere tools through which participatory communication (Jenkins, 2009) can take place. While it is true that social media platforms such as Facebook and Twitter have simplified the communication process and expanded potential communicative opportunities, they have also harnessed communications in an effort to monetize it. Thus, while social media, like any other media form, serve to enhance and to a degree promote communication, they are not simply semantic platforms. Rather, social media platforms can be said to promote the patterning of communication through media objects, which involves recording not only what is being said but, more broadly, the act of communication itself. From a corporate social media logic, content (understood as meaning) is only the tip of the iceberg. Social media record in increasingly layered detail the different aspects of a communicative act: that is, not only what is said, but also specific information about the profile of the user sending out a message, the users receiving that message, about how users interact with a message by reading or not reading it, 'liking' it, sharing it, etc. As such, the recording processes at stake with corporate social media

include a minutiae of details that would be difficult to gain through human observation only: corporate social media platforms notice time lapses, time spent on a page or scrolling, pauses in the communication process, silences that might seem noncommunicational but that still yield information as to what a user is reading or deciding not to react to, as well as previous communication acts that give a specific communication act a discursive and social context. Finally, the combination of longexisting tracking devices, such as cookies, and newer ones, such as the Facebook 'like' button that is now commonly embedded on many webpages, allows for the collection of diverse contextual clues: not just of the kind of content users access and interact with at different times of the day and night and in different social settings (at work, home, or with friends), but also of how users themselves act on different platforms and how they share content across a multitude of platforms.

The corporate social media platforms that organize most of what we currently experience as participatory culture do more than just allow users to publish and communicate with one another: they also seek to enhance, format, encode and diagnose communication. This enhancement of acts of communication can take different forms, from the creation of tools that facilitate user communication to the development of targeted advertising and the personalized ranking of information according to specific logics. For instance, Facebook gives two choices for ranking stories on a user's newsfeed. The first default raking logic is called 'most popular', which means stories which are 'liked' or commented on more than others, or that are produced by very active Facebook users. The second ranking option is filtered by newest stories first - a more traditional ranking commonly found in blogs in particular. In trying to define a specific ranking logic that involves some kind of contextual understanding of user activity and user's centrality within a network of connection, Facebook does not simply transmits content: it filters it and claims to augment it, to make it more relevant and meaningful to its supposed addressees. The challenge is that such logics of sorting through large amounts of information are not open to public scrutiny: just as the Google algorithm is a proprietary format, so too is Facebook's EdgeRank algorithm which identifies most popular stories. While it is possible to understand in general terms how both ranking algorithms work - for Google, through in-links and geographic location, and for EdgeRank, through closeness among specific users, number of existing interactions with a story and time elapsed since the story was first published - the actual weight of each

of the elements that compose the algorithm is kept secret (Bucher, 2012). In all, corporate social media platforms have accelerated the melding of communication acts with special interest logics. They do not merely interject for-profit messages, such as advertising, into acts of communication. More importantly, they also encode and fold acts of communication into techno-corporate kernels, or objects. In other words, they do not simply use communication as a springboard to promote special interests – they use communication to tap into everyday life in order to try and refashion it from the inside.

The consequences of this new articulation of media, life and economics have been the focus of much attention in the past few years. Overall, we can distinguish three different yet intertwined approaches to corporate social media. The first approach, often dubbed 'critical political economy,' examines how the new business models developed by corporate social media redefine power relations. For instance, scholarship on immaterial labour, semiotic capitalism and cognitive capitalism has shown that corporate social media platforms do much more than just sell users' attention to advertisers: they actually help identify the very strategies through which attention can be fully harnessed. The general understanding that has emerged from the critical political economy approach is that corporate social media seek to mine life itself - where life is understood not in strictly biopolitical terms, but rather as intellectual, emotional, affective, cognitive and social life, from attention (Terranova, 2012) to noopower (Gehl, 2013) and being together (Stiegler, 2012).

The second axis of reflection critically reflects on corporate social media through empirical engagement with social media platforms and networks. Software studies and other forms of software analysis examine the algorithmic logics of social media platforms in order to identify whose interests they serve. Research into ranking algorithms, for example (Bucher, 2012; Gillespie, 2012), highlights how the circulation of information is framed through cultural biases inscribed into algorithms. Elsewhere, so-called 'natively' digital methods (Rogers, 2009) trace the different networks of data produced by social media, from networks of friends to economic networks. Using this approach, Helmond and Gerlitz (2013) proceed by tracking the networks of data collection and marketing agents that are activated each time someone clicks on the 'like' button. These new maps of corporate social media activity reveal the

complex and multilayered communicative acts on social media as they link together disparate economic, cultural and social interests.

The third approach relating to our problematics of media objects is concerned with questions of software activism and software design, from the politics of the aesthetics of user-interface to the design of alternative social media that preserve privacy and build alternative spaces of online community, exchange and activism (Lovink and Rasch, 2013). This approach specifically interrogates how we can deconstruct and reconstruct the experience of using corporate social media platforms in the hope of developing new user agencies.

As with our own stated goal, these three strands of critical analysis of corporate social media highlight the search for technological articulations in and across so-called participatory communication in the context of corporate social media's principle of information gathering, processing and circulation through networks of data analysis and marketing. This concept of articulation, as nonnecessary, context-defined connection between diverse processes (Slack and Wise, 2004), is key here. Tracing the impact of such articulations in specific contexts and events could yield important insights into how to critique, reconstruct, and develop alternatives (both political ones and software ones) to the impact of corporate social media on all aspects of life - from the mundane to the exceptional, from the political to the everyday, from public life to private, intimate connections. The concept of double articulation (Langlois *et al.*, 2009) becomes a particularly useful device that can help us understand corporate social media. This concept suggests that communicative acts - particularly those occurring through digital objects - that take place at one level simultaneously create new articulations at another level. For instance, economic interests in gathering as much user data as possible are articulated with technical ones in the creation of new platforms. This, in turn, has an effect at the level of interface communication among users, in that such new knowledge about users will be used to create targeted interventions at the interface level, from advertising to the suggestion of stories to follow. As such, if as researchers we focus on the phenomenon of communication and take an act of communication as an object of study, we have to be aware that this object of study, which we call here a digital object, is not simply about human content and context: it encapsulates a series of double articulations where disparate economic, technological, cultural and social logics are shaped by each other, and therefore have to be studied in relation with each other. Corporate social media

platforms constantly enact these double articulations: while on the surface they seem to promote unfettered communication, they work in their back-end of data processing and analysis to transform and translate acts of communication into valuable data.

Critical Social Media Research?

We offer these initial thoughts on social media studies, as both an ontological and methodological challenge in light of what we view as an increasingly complacent, administrative approach to social media research. In other words, we see the current juncture in social media studies as echoing back to the divide in mass media research in the 1930s and '40s between administrative research and critical research. On the one hand, administrative communication research emerged as empirically-driven, favouring the use of quantitative methods and the parcelling out of acts of communication into recognizable objects: actor, content, audience, effects. Such research aimed to be descriptive and mostly emerged outside of academia: it was state- and commercially-driven, leading to studies about how people made voting decisions as well as which commercial products they favoured and why. On the other hand, critical research posited that culture could not be measured, favoured qualitative methods over quantitative ones, and aimed to identify systemic power inequalities as well as formulate alternatives (Adorno and Horkheimer, 2001). As such, it was radically opposed to the administrative agenda of rationalizing acts of communication. The two approaches attempted to connect with each other through the infamous radio project that saw the father of administrative research Paul Lazarsfeld attempt, and fail, to collaborate with Frankfurt School theorist Theodor Adorno. The split was more than just a failure of a collaborative research project. Indeed, this breakdown established two very distinct and separate paradigms for research: an administrative one that has often been criticized for unproblematically aligning itself with corporate and special interests, and a critical one that has either been focused on broad structural issues such as political economy ones, or on qualitative analysis of small samples.

Such divisions in the research framework have already appeared in the case of corporate social media research: to date, the conjunction of wanting to study social media with a push towards 'big data' has led to numerous content analyses of broad data samples, including those that seek to describe the general mood of the public (i.e. sentiment analysis). An example of such approach is wefeelfine.org, which collects sentences containing 'I feel...' from different Web sources in order to provide a broad tapestry of feelings online. While such research projects demonstrate the magnitude of voices that are present online, they tend to decontextualize acts of communication, that is, to create artificial correlations and equations to produce artificial communities of feelings that erase the specific and unique context of a single utterance.

Too often, scholarly research on social media suffers from an unproblematized approach to social media data as supposedly a transparent representation of human behaviour, one that can be used to predict future behaviour. The assumption here is that social media data can be used to understand all potential users and nonusers alike. The inherent problem in trying to simplify and decontextualize such things as emotions, feelings and sentiments tells us about the limits of some of the approaches that see social media as data repositories of transparent and simple communicative actions. That being said, we suggest that the critical approach of old needs to be revisited as both types of analysis - those of structural issues and those of small samples - are limited in the case of corporate social media platforms. In the case of smaller samples subject to qualitative analysis, the explosion of content in the participatory communication context suggests that research that was already time consuming now becomes almost impossible to carry out: while conducting a discourse analysis of a newspaper for a day could be feasible, doing a discourse analysis of a popular Facebook group even for once single day is almost impossible, unless one has access to a whole team of researchers. As such, critical research runs the risk of limiting itself either to broad structural claims while ignoring the actual articulations of corporate and participatory logics in specific contexts, or to very small claims because of its necessarily limited sample size. The question, then, is how to navigate all these contextual, theoretical and methodological challenges in order to shape a new critical framework for research into corporate social media.

Before delving further into the digital object as a methodological point of departure or better, critical *kernel*, it is useful to highlight how corporate social media have changed the epistemological and political context for doing critical research. Critical research broadly defined focuses on examining unequal relations of power and on formulating alternatives. With regards to communication technologies, critical research focuses on whose interests are being served and whose interests are being denied or made invisible as technological systems evolve in economic, social and political contexts. With regards to corporate social media, as seen above, critical approaches have turned towards the question of individual and collective life, from perception to affects, from political agency to a sense of belonging to communities, as it is mediated and regulated by techno-corporate networks. This is why we argue that there is no outside to human participatory communication that would be distinct from the corporate logics of social media: the platform itself it what melds these two aspects together. This core articulation, however, is not simply something to be studied; it is something that directly intervenes in the capacity to conduct critical research. That is, the main problem with corporate social media is that they are not simply objects to be studied, they also monitor, mediate and regulate any kind of attempt to get into them, so to speak, that is, to get into their dealings with all aspects of life. Corporate social media platforms obfuscate: their logic goes against critical approaches at many levels, some of which are examined below.

As noted in our introduction, then, corporate social media present us with a paradoxical research context. On the one hand, corporate social media carry with them the promise of transparent communication that can reveal the detailed intricacies of human life: not only what people say, but also the web of intimate and public connections within which any kind of meaning is inscribed. Needless to say, such a wealth of information presents tremendous research opportunities and research ethics challenges. After all, analyzing what takes place on corporate social media does not need to be limited to messages exchanged on an interface: the communicative acts that are being tracked through Facebook data, for instance, are not simply about content, but about human behaviour. In terms of research ethics, this new capacity to examine the acts of any users in such details poses serious challenges: this kind of scrutiny was the purview of scientific fields such as psychology, and was guided by stringent research ethics protocols, including the requirements to obtain consent from research participants and to anonymize data. The fact that anybody with access to corporate social media data can undertake data-mining and analysis of that scope raises a whole new set of issues and a need for further guidelines for social scientists and humanities scholars.

However, any social scientist undertaking research using corporate social media platforms will acknowledge the incredible complexity in getting access to data, even if the intricacies of research ethics have been adequately addressed. Corporate social media platforms tend to favour for-profit applications and uses of their services, and this has consequences in terms of accessibility of data for public and critical research. In particular, data from corporate social media platforms is accessible via application programming interfaces (API). Depending on the type of platform, API can be more or less easy to interact with and request data from. Some API such as the Facebook API, are geared towards the creation of commercial applications. As a consequence, it is impossible to just ask the API for a large amount of data. Third parties are available to launch data queries on a selection of corporate social media platforms, but at a price, thus requiring researchers to have access to funds. In terms of Internet research, these dynamics are quite new. The earlier incarnation of the World Wide Web was more transparent: most information, from text to hyperlinks and metatags, could be collected through crawlers, and several crawlers were available on an open source or free basis. The corporate social media model, however, introduces a tiered system: some information is visible to all, but that does not mean that all information can be accessed and analyzed by anyone. While it is still feasible to do a screen capture or copy and paste of what is visible at the interface level, the recording of full data - not only content, but the contextual information regarding that content which is generally accessible via the API - can be difficult, if not downright impossible, to get access to. In general, research for the public interest tends not to be recognized. Most social media platforms do not make their data available for scientific, not-for-profit research. Twitter, however, is allowing the Library of Congress to store past tweets, but the time delay means that research into current events is unfeasible. As such, there is a real and pressing challenge regarding the status of research for the public good rather than research with direct commercial applications and its relationship with corporate social media platforms that have de facto privatized access to data.

It might seem that these research challenges are restricted to corporate social media spaces: the Facebook website, for instance, or the Twitter websites or apps, or the Google + website. However, corporate social media platforms do not simply centralize all their activities within one space – they also expand them throughout the Internet. This is particularly evident with the use of digital objects such as share buttons: the 'tweet' button from Twitter, the 'like' button from Facebook, and the Google '+1' button, to name but a few. These button-objects make enable users to share content with their social networks across these different platforms. Buttons, then, create information networks that link social media platforms to the rest of the Internet. They are an evolution of the hyperlink: they make information accessible by creating paths, but they differ from the hyperlink in that they do not just create paths – they also allow for the recording of further data on user information sharing behaviours. Buttons, and other kinds of what Facebook calls 'social plugins', link social media data with other kinds of online information not only to collect information back to the social media website, but also to create on other websites a way of approaching information following the specific kinds of social connectivity promoted by the social media platforms: sharing with friends, for instance, but also seeing which information is seen by other friends. Corporate social media platforms cannot be defined purely as enclosed spaces - the platform promotes specific principles for viewing and sharing information in a contextual manner, that is, in a manner that makes it possible to see that information is accessed, but also interacted with, through sharing, liking and other online actions. As such, the corporate social media logic is present almost everywhere online. Doing research into modes of participatory culture and communication therefore requires taking the presence of corporate social media networks into account.

It is important, furthermore, to understand that this contextual paradox of research between transparent communication and platform obfuscation is not just limited to what kind of data is accessible. Data itself, from a critical perspective, is a problematic concept: should it be seen as a faithful representation of human behaviour or as a dehumanized recording that artificially parcels out existence into quantifiable bits? As we said above, corporate social media do not simply transmit communication among users, they transform it and impose specific logic on it. To borrow from Lawrence Lessig (2006), the platform's code imposes specific regulations, or laws, on social acts. The consequence of this is that corporate social media give the impression that they merely render social acts visible, whereas in fact they are in the process of constructing a specific techno-social world. For instance, while I can 'like' something on Facebook and have 'friends', I cannot dislike, or hate or be bored by something and have enemies or people that are very vague acquaintances. The seeming social transparency that is the promise of corporate social media is a construct: the platform imposes its own logic, and in the case of Facebook, this logic is one of constant connectivity. The promise that social media data is in the first place a transparent trace of human behaviour is thus false: what

data reveals is the articulation of participatory and corporate logics. As such, any claim to examine a pre-existing social through social media is thus flawed. Thus, in studying modes of participatory culture on corporate social media platforms we encounter two main challenges: one concerning access to data and the ethics of data research, the other data itself and what it claims to stand for.

Digital Objects

The main challenge for critical communication research could thus summarized as follows: how can we unpack the different articulations of corporate and participatory logics by examining what is available to the researcher with limited access to corporate social media data and to the social media algorithms that organize life online? Our answer is that researchers need to rethink the very site of analysis and focus on what we call 'digital objects'. Digital objects, as previously explained, are the elements that compose social media platforms in specific context: a 'like' button is a digital object, for instance, as is a comment or any other kinds of text. Digital objects are also the results of invisible data processing that come back to us as personalized recommendations of all kinds. In doing so, the object of analysis is not simply the textual multimedia elements present on a user interface at a specific moment: it is also all the software elements that make textual elements visible, from formatting specifications to ranking algorithms. Digital objects, then, are multifaceted objects that contain cultural elements along with informational processes and design elements.

The digital object possesses three characteristics or layers. First, it is a *media object* in the classical sense of the term: it has some kind of content that signifies something; in short, it integrates a semantic layer. It can be subject to a classic critical-cultural analysis such as discourse analysis. A Facebook post, or a video posted on YouTube, can be analyzed for its content as well as its form, that is, for the different multimedia aesthetics it deploys. Yet digital objects are not simply media objects: the signification of the 'like' button, for instance, only yields limited insight into how it influences and shapes participatory communication. This point reveals a second layer of the digital object: it is a *network object*. That is to say, the digital object connects different kinds of informational networks together. The Facebook 'like' button, for instance, connects the Facebook network of a user with other digital objects and networks: for instance, with the Facebook network of another user, or with an object, such as a news story, produced by a mainstream media site. From the perspective of the network, the digital object acts like an interface that allows for some kind of informational connection at different levels. That is, these informational connections can take place at the level of the user interface, but also at the back-end. 'Liking' a news story usually means that other hidden informational networks are activated: profiling networks, for instance, that will then adapt the content of the ads on a news website to the Facebook profile of the user. As a network object, then, the digital object is the interface through which different kinds of informational economies get attached to and act within a specific communicational context. Informational networks in the corporate social media logic produce a kind of automated recognition of the user: they identify and situate the user among different networks of relations, marketing, and advertising. This reveals the third layer of the digital object: it is also a phatic object (Miller, 2008), in that it establishes specific kinds of presence and relation among users. 'Liking' something, to continue with our example, is an act of presence within one's Facebook network: it not only makes a user visible to other users, it is not only about sharing meaningful content, but also about establishing one's position and relation among an ecology of users and digital objects. This is often the case when one 'likes' a political statement or position: the act of liking shows where one positions oneself in a political horizon, and is a claim as to what kinds of relations one expects from other politically involved users in one's network. Of course, these characteristics - media, network, phatic - do not act independently of each other: depending on the digital object under analysis, each characteristic will influence and shape the other ones in different ways: the media aspect of an object serves as a database for the activation of informational object, the informational network produces new media objects (new content or new stories, for instance) as well as mediates acts of presence and relationality among users.

This thick digital object is thus the site where the articulation of participatory and corporate logics can be examined through identifying the different kinds of informational logics and layers, phatic moments, media processes and their interactions. The analysis of a digital object, even if it takes place within a small sample, can thus yield greater knowledge and awareness as to how corporate social media logics enter into participatory processes. Again, contrasted with the big data approach, this 'thick data' encoded into the digital object offers a compelling site from which articulations can be mapped between users, platforms, and communicative acts. Investigating digital objects as such can lead to a better understanding of the new forms of political activism that have recently emerged online, providing insight into how different groups and actors make use of the specific informational logic of corporate social networks to spread a cause and transform opinion. That being said, the critical approach to the study of digital objects is to some extent akin to advancing in the dark. Because aspects of the digital objects are only partially visible at the user-interface level, it is important to maintain the long-standing critical position whereby the analysis is not only about what is visible, but also about what remains invisible – and thus unquestioned and accepted as the norm.

The digital object is therefore decidedly evasive – it is in many ways akin to the evil media object described by Fuller and Goffey (2009) and further explored by Parikka (2013) in this special issue: it is complex, only partially visible, and reveals as well as hides its many layers and articulations. Yet understanding that digital objects are multifaceted, that they can hide as much as they can reveal, opens the door for a new critical approach, one akin to reverse engineering. Critical reverse engineering has been a long-standing tactics in online politics, gaining popularity through the phenomenon of Google bombing. One can recall the 'error 404' page that would come up as first result when searching for 'weapons of mass destruction' in the early days of the 2001 U.S. invasion of Iraq. Another more humorous example on Facebook was the short-lived 2008 Burger King app, which promised a free burger to anybody who would defriend ten of their Facebook friends. Here, these examples of reverse engineering of the informational logics served some specific cultural purposes: a political one in the case of the WMD Google bombing and a critique of 'friending' (Boyd, 2004) in the case of the Burger King Facebook app.

The digital object as a concept is not only that which hides and reveals different cultural and informational processes; it is also that which patterns and orchestrates diverse other elements, from user behaviours to other digital objects. The 'like' button, for instance, is an example of a digital object that appropriates third party objects, such as a news story, and articulates it with the Facebook logic of connectivity. The digital object can be used to transform other objects in its vicinity, and it also directs the kinds of interaction that users can have with it. In many ways, the digital object is akin to Celia Lury's analysis of the brand that patterns different elements around it (2004), that is as a platform in itself. The digital object establishes patterns of relationality with other digital objects, and with platform users. These patterns of relationality are that which give a digital object its meaningfulness as they organize how the object fits within a specific context. From a corporate social media perspective, these patterns of relationality among digital objects and users orchestrate different flows of data – from the data that is visible at the user interface level to the grey and dark networks of datamining.

The digital object also imposes patterns of perception, and not only with regards to what is available and visible to the user. The digital object articulates different forms of being online, from an individual to a collective gaze, where one is aware that one's interactions with an object will have consequences for other users – e.g. those that are part of one's social network. As such, the digital object can foster not so much the 'imagined communities' of old (Anderson, 2006), but rather 'felt communities,' where users can become aware of the way their actions are going to find an echo and define a new attentional context. This is linked with the phatic dimension of the digital object, where the act of presence to others through the interaction with digital objects might have an impact on these other users. The digital objects thus encapsulates specific modes of 'distribution of the sensible' (Ranciere, 2004), that is, processes through which some elements become more visible than others, processes that ultimately define specific ways of being together and understanding one's existence within a community of users.

This short exposé of the concept of the digital object hopefully offers one way of reconciling disparate trends in communication research, namely the kind of research into large data that has mostly been approached from an administrative perspective with a critical ethos of looking at how specific interests, from political to corporate ones, intervene in the communication process. In doing so, traditional critical approaches to communication research have to change: until recently data was not a word commonly found in critical theory and, for many scholars, in still raises the spectre of the dehumanization of research and the imposition of technical logics onto the unfolding of life. In dealing with thick data through the concept of the digital object, thus, it is expected that a critical approach will fundamentally change the concept of data itself, and reinvent tools that look at double articulations and the superimposition of technical, economic and social logics and layers - rather than offer a simple understanding of acts of communication online. The digital object as a multi-layered object can offer a new point of departure in

dealing with these contradictions of critical research into corporate social media, but it is far from being a final answer. Rather, the critical appropriation of software tools, analytical tools and other tools that deal with what is manifested online is not simply a necessary methodological step: it is the ground through which a new critical epistemology of life online can be formulated.

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