Triggering Facebook: studying action formats on the web¹

Abstract:

This paper proposes a digital methods approach for studying action on Facebook, developed in a research project on Facebook Activism.² Inspired by Latour (2005), who urges researchers not to impose social categories to research objects but to observe how they order themselves, we critically assessed claims on Facebook activism that primarily depart from users' perspectives and investigated instead what kinds of activism Facebook enables. We studied calls for action within a top selection of Facebook groups having 'stance language' in the titles and accordingly visualised the relative sizes of their 'action formats'. The project can relate to other studies on Facebook activism by putting into perspective the relevance of certain repertoires of action compared to others.

On the theoretical level the paper contributes to studies on user-technology interaction within surveillance networks by involving Actor Network Theory (ANT) to this topic. In particular, the paper criticises case studies that describe how users repurpose technologies according to their 'own' views. These studies risk importing preconfigured notions of actorship and re-establishing a two-actor paradigm. With the alternative approach presented here, that is distilling *repertoires of action*, actorship does not fall back into a user/technology distinction, but becomes a question of enactment.

Introduction: User, technology and action?

Much is said about Facebook Activism. Some consider Facebook to be a revolutionary medium; others say Facebook is only good for 'slacktivism': *Like!*, *but do nothing*. Often, such claims, or the studies preceding them, require certain notions of activism or a demarcation of users' needs against which the platform can be evaluated. Examples include Facebook being 'unsuitable for activism' by design, or Facebook being repurposed against itself to serve users' needs for privacy. In our project we reformulated such claims into questions by directing ourselves to the medium itself: what kind of activism can be find on Facebook? How are issues done on Facebook? With tools developed by the Digital Methods Initiative we followed web objects and studied the platform for its 'action formats'. The project was inspired by Actor Network Theory (ANT): as we kept close to the language of the medium, we understood part of our findings to be a form of 'infra-language' (Latour 2005).

ANT was originally developed in science studies, but it is currently drawn into several other fields of study. One of the areas that explicitly call for ANT-inspired approaches is 'surveillance studies' (Wood 2003), which will be discussed this paper, but similar claims can be found in, for example, Urban Studies (Farías 2010).³ Analyses of surveillance technologies illustrate some reasons to engage with ANT, but also a few difficulties. Surveillance studies increasingly recognise that technologies are active participants in surveillance networks, which raises new questions about the role and implications of these technological actors. For example:

¹ The title of this paper is slightly different from the title of the presentation as taken up in the conference program (Facebook speak up!)

² The project was performed for the Digital Methods Initiative Summer School 2010 by Clare Lee, Esther Weltevrede and the author of this paper. I want to thank Caroline Gerlitz and Natalia Sanchez for their fruitful comments to an earlier version of this paper.

³ As noted by Farías (2010), sometimes ANT seems to become an 'actor' itself, which is expected to change a whole field of study.

who or what is acting, how is agency made possible, where is power situated or gained, and how to study this activity? This paper will present a short theoretical introduction to the field, the questions to be dealt with, and the possible contributions that ANT has to offer. Subsequently follows a critical evaluation of studies of local engagements with surveillance technologies. We learn that ANT's famous slogan 'just follow the actors' raises the question of how to 'choose the actors' in a way that does not co-determine users' needs or contexts.

In this paper it will be argued that the merits of ANT lie in its focus on how relations and possibilities for action are redefined. The Digital Methods case study on Facebook activism is presented as an attempt to address this question because it tries to get hold on formats of action. However, it is a only a first exploration and should be understood as work in progress. In the conclusion I will therefore elaborate on what questions the case study brings up and what further steps are to be taken.

How to grasp the networks?

Technologies and non-human artefacts are increasingly recognised as 'active' participants in surveillance processes. Not only do technologies carry out surveying tasks that were previously assigned to humans, for instance search engines performing customer research by collecting user data; also the targets of surveillance are not at all limited to human beings, nor to 'personal data' (Haggerty 2006; Donaldson & Wood 2004; Adey 2004). Examples of non-human targets of surveillance are for example microbes and environmental phenomena, or more commonly known, suitcases in airports to be sorted out. The inclusion of non-human activity in the analysis of surveillance practices enriches the picture of contemporary surveillance, yet also makes the processes more difficult to grasp. Moreover, contemporary surveillance operates by combining knowledge gained from different sources at different moments (Marx 2000), information that is stored in databanks providing a frame of reference for further analysis (Rathenau 2007). Contemporary surveillance is thus increasingly directed to settings and patterns of relationships, and processes of collecting and reassembling of data take place in a diffused manner.

Faced with these increasingly complex processes, some scholars argue that the available theoretical frameworks are unable to critically assess contemporary developments. Michel Foucault's (1977) concept of the 'panopticon' has been of fundamental importance to this field of study.⁴ However, the usefulness of the panopticon as an analytical tool to understand

⁴ Foucault draws on the panopticon as envisioned by Bentham. Through its architecture of visible cells around a central tower the panopticon would force the prisoners to behave themselves even in absence of the guards, thereby providing an efficient power mechanism that would make the use of physical pressure obsolete. According to Foucault, various technologies of visibility and registration emerged in the late eighteenth century in settings such as schools, factories and clinics that, by making visible differences, simultaneously enabled the

contemporary surveillance networks is highly contested. One of the most pertinent criticisms, based on Deleuze (1992), is that the 'types' of technologies have changed: panoptic surveillance is, as it is mostly understood, enabled through observations within certain physical architectonic settings bounded by place and time, while contemporary surveillance technologies are taken to be more dynamic and network based (Haggerty & Ericson 2000; Martin et al. 2009). In addition, panoptic thinking is argued to feed unilateral understandings of power (Haggerty 2006, Lyon 2003), and to have limiting effects on progressive theory formation with respect to power relations and practices of resistance (Martin et al. 2009, Fernandez & Huey, 2009).

Two of the most outspoken critics of the dominance of Foucauldian frameworks. Haggery and Ericson, argue that the concept of the 'assemblage' (Deleuze & Guattari 2009) is better suited to analyse the complex and heterogeneous network processes through which contemporary surveillance operates. This assemblage, according to Haggerty and Ericson, "operates by abstracting human bodies from their territorial settings and separating them into a series of discrete flows. These flows are then reassembled into distinct 'data doubles' which can be scrutinized and targeted for intervention" (Haggerty & Ericson, 606). Furthermore, this way of conceptualising is expected to address issues of power relations better because it doesn't fall back in unilateral understandings of power that panoptic thinking can easily slip into. Haggerty and Ericson have many followers that press for a new conceptual repertoire, although some critics argue that the subtleties of Foucault's thought might be overlooked and that thinking in terms of assemblages was already pre-empted by Foucault (Caluya 2010, 623).6 Admitting the nuances, Haggerty persists for the sake of new theory that it is time to "cut off the head of the king" (Haggerty 2006, 27). He urges scholars should stop to read panoptic attributes 'into' surveillance practices and instead take serious the questions that new technologies raise themselves (Haggerty 2006, 32).

Now, the first part of his (and Ericson's) plea, to put Foucault to rest and move on to a more Deleuzian way of thinking, has proved pretty successful (Lyon 2006; Caluya 2010, 622). However, despite the claim that this new assemblage-oriented paradigm would better suit contemporary technologies, it is, similar to the panopticon, very powerful on the conceptual level but its merits for further empirical research still have to be proved. Indeed, critics have argued that although - or maybe because - the surveillant assemblage is a powerful concept, it

emergence of normal/abnormal binary. In this way, panoptic techniques contributed to disciplinary processes by which human subjects formed themselves towards a normalising gaze.

⁵ According to Deleuze & Guattari (2009), there are no distinct machines, only "types of interpenetrating multiplicities" that can form an assemblage (41). This assemblage can never be reduced to its elements because they don't have a fixed meaning; they are mediated by the interrelations that together shape the assemblage. ⁶ Caluya (2010) states that these scholars inappropriately read a certain unidirectionality into Foucaults understanding of the panopticon and neglect the situatedness of panoptic techniques within a whole series of arrangements of techniques and power relations.

remains rather abstract. Prainsack and Toom, who work on the topic of DNA databases, state that the majority of the surveillance literature fails "to locate agency", "to spell out who and what exactly engages in surveillance systems", and falls short in portraying "constructive and productive participation in surveillance as anything but an instant of false consciousness" (Prainsack & Toom 2010, 1119). According to these authors, the very definition of the surveillant assemblage as an agent itself leads away from an understanding of specific surveillance practices:

(...) inherent in Haggerty and Ericson's (2000: 606) definition that the '[surveillant] assemblage operates by abstracting human bodies from their territorial settings and separating them into a series of discrete flows' is the ascription of agency to the theoretical concept itself. (ibid)⁷

Haggerty himself expressed some hesitancy when presenting his conceptual move, for he feared introducing just another all-encompassing concept that could overwhelm empirical findings. In fact, the second – and arguably most important – part of Haggerty's argument, to *take up the questions that new technologies raise themselves*, has moved to the background in debates evaluating the panopticon versus the assemblage.⁸ It is also to that second part of his argument that a move to Actor Network Theory can be fruitful.

Surveillance studies invite ANT to come close

As mentioned before, analyses of surveillance express high expectations about possible contributions of ANT to surveillance studies (Wood 2003; Wood 2007; Martin, Brakel, & Bernhard 2009). By providing ethnographic accounts of socio-material processes, ANT facilitates an empirical understanding of how surveillance technologies actually operate and what kind of questions they raise. Although it may seem somewhat surprising, contributions from ANT-informed approaches to the field are quite recent and still rare. The most important reason to engage with ANT in this paper is because it helps to address the issue of agency and power in a very specific way. If we understand surveillance practices as those ordering processes that control information, and possibilities for activity and action (Donaldson & Wood 2004, 380), ANT is helpful because it takes a closer look at how relations and possibilities for action are redefined. After having introduced ANT I will briefly go into a selection of studies of

⁷ One could oppose that Deleuze's argument was exactly that the assemblage is *not* reducible to its elements. However, Deleuze does explain how the assemblage gains its consistency (Schuilenberg 2009).

⁸ Haggerty's own examples of new questions posed by surveillance technologies include the following: what does surveillance of non-human entities do with our conception of nature and our relation to the natural world; what social benefits does surveillance entail; and what are the political implications of new types of surveillance? (Haggerty 2006, 31).

⁹ Kirstie Ball's 'Elements of Surveillance' (2002) is referred to as "the first detailed consideration of the implications of this revisioning of sociology for Surveillance Studies" (Wood 2003, 238) and in 2007 ANT is still said to be applied only sporadically to this topic (Wood 2007, 256).

surveillance practices that position themselves in the post-panoptic paradigm and include the role of non-humans in their analysis. Consequently I will problematise how they analyse their actors, and provide an alternative ANT-inspired method.

Actor-Network Theory (ANT) was developed in the eighties by scholars within a research field that became known as 'Science and Technology Studies (STS)' (Callon 1986, Latour 1987, Law 1992, Latour 1993). ANT can be described as an 'ethno-methodology of material-semiotic practices': it is associated with close, ethnographic studies of scientific practices that understand these practices in terms of heterogeneous networks, in which also non-human actors, for instance texts and objects, can have organisational effects. In one of his classic studies, *Science in the Making*, Latour shows how science is always in flux and that even what we consider to be 'facts' are network effects of heterogeneous practices. Networks hold together through mutual engagements between actors – some prefer the term actants to express the heterogeneity of the elements – for instance, texts, instruments, muddy research materials, and publications. Facts are considered to be the outcome of those networks that succeed in sticking together and act as a coherent body. From this framework, facts cannot explain things; facts are to be explained.

In analysing these networks, ANT takes a symmetrical approach towards 'material' and 'human' or 'social' actors in the sense that agency should never be ascribed to actors on the basis of them being considered as 'material' and 'human' or 'social' and the capacities associated to these categories. Agency is not restricted to what we usually think of as agents, but it is organised by the network:

Is an agent an agent primarily because he or she inhabits a body that caries knowledges, skills, values, and all the rest? Or is an agent and agent because he or she inhabits a set of elements (including, of course, a body) that stretches out into the network of materials, somatic and otherwise, that surrounds the body? (Law 1992, 384)

Thereby ANT allows analytical space for the role of non-human elements and their capacities for (inter)acting. Non-humans can interrupt, resist and have considerable impact on material-semiotic networks, however, this should not to be mistaken with intentional influence.

Power within this approach is considered to be a result achieved by the network and never a cause or a characteristic to be attributed to single elements in the network. ANT research offered rich descriptions of how actors get enrolled in networks, how these networks are reconfigured, and how they gain in strength if translations are successful (Latour 1993). The endurement of networks costs a lot of work and is always in a mode of becoming. ANT-proponents argue that there is never something like a 'social order', but only processes of ordering and resisting (Law 1992). ANT is in debt of Foucault: as Latour explains, Foucault was brilliant in describing how ordering devices, for instance, methods of record keeping, inspection

techniques, institutional architectures – in short: panoptic techniques – enabled a transformation as big as the emergence of the human sciences. The panopticon, according to Latour, "is another way of obtaining the 'optical consistency' necessary for power on a large scale" (Latour 1986, 14). However, whereas Foucault undertakes a genealogical approach and makes statements about societal transformations, ANT keeps close to case studies: "[it] tells empirical stories about processes of translation" (Law 1992, 387).¹⁰

The most relevant work for this piece of writing is Latour's more recent work *Reassembling the Social* (2005) in which he elaborates on the meaning of ANT for social research in general. His main criticism is of the methodological sort: he criticises social scientists of importing pre-established ideas about 'the social' to the world, for instance 'social' ties or 'economic' factors, while not making clear what the 'social' or 'economic' consists of, or what the exact relationship is between, for example, social interests and the thing to be explained. To explain something as 'social' or 'political' doesn't elucidate much and it forces the world disrespectfully in a certain format. With this critique he is giving a fraternal poke to his colleagues in the field of Social Studies of Science that explain scientific knowledge in terms of social contexts.

Latour's assertion is that sociology should reverse the 'explanans' and 'explanandum': 'the social' is the thing that needs explanation. How come societies, or things, tie together? Instead of studying the social, we should study associations. To come back to method, the way to scientifically know this is not to add social categories to our research objects, but to extract the way objects order themselves, which means giving space to the objects to express themselves:

Your task is no longer to impose some order, to limit the range of acceptable entities, to teach actors what they are, or to add some reflectivity to their blind practice. Using a slogan from ANT, you have 'to follow the actors themselves', that is try to catch up with their often wild innovations in order to learn from them what the collective existence has become in their hands, which methods they have elaborated to make it fit together, which accounts could best define the new associations that they have been forced to established. (Latour 2005, 11-12)

However, this task not to categorise the actors but to use 'their' methods and accounts is not that obvious, which will be illustrated below with some examples of studies of local engagements with surveillance technologies. Because how should we approach actors in the first place?

¹⁰ There has been discussion among ANT-scholars whether 'network' is the most suitable term to describe the interactions under study. Marres points to Latours' statement that, especially since the rise of the internet, the term network can flatten out what ANT-scholars meant with the term 'network': an operator of translations (Marres 2005, 109). This is something to keep in mind when we read claims by surveillance scholars that contemporary surveillance technologies are 'dispersed' and operate through 'networks'. Latour and Law would say that all things are constituted by networks, even seemingly solid technologies. Therefore from an ANT-perspective, the idea that surveillance technologies would be working through networks is not particularly bound to 'new' technologies (and in that sense it is more in line with Foucault's understanding of knowledge networks).

Back to specific assemblages: from distributed networks to practices of recoding

The case studies discussed below show a few steps one could take to give 'body' to the surveillant assemblage. One possible step is starting with *mapping networks of distributed surveillance* and bringing into view the broad spectrum of actors involved in surveillance practices (Martin, Brakel, & Bernhard 2009). In a discussion of the United Kingdom National Identification Scheme, Martin, van Brakel and Bernard state that surveillance is not limited to a two-party relationship between surveyor and subject, but it involves various complex resistance relations. The actors, surveilled groups, international actors, surveillance authorities, surveyors, surveillance artefacts, and commercial actors inhabit different roles in different stages of the surveillance process (225). For example, surveyors do not only survey, but they also resist by bypassing or learn others to bypass systems, technologies can resist implementation at early stages, and governments can do so after the development stages. The directions or 'paths' that these instances of resistance resolve into are context-dependent.

Others elaborate on such path dependencies and emphasise the *participative dimensions* of distributed surveillance networks. For example, Bauer and Olsén (2009) discuss the effects of technologies in the area of biomedicine. Examples include healthware, which are tools to monitor one's condition, online databases used for uploading medical images, for example webcasts or youtube, and pro-active health mapping tools like 'WhoIsSick', a tool for residents to monitor disease symptoms in neighbourhoods. According to Bauer and Olsén the molecularisation of the body and digital techniques have reconfigured doctor-patient relationships in such a way that they enable different modes of participation in the surveillance gaze. For example, medical inspection is spatially pulled away from the clinic and digital visualisations are partly constructed by digital communities themselves:

The argument here is that digital networks not only facilitate clinical systems of telepresent monitoring, but that they also prompt usages of surveillance technologies that are at odds with the initial purpose. Uploading one's endoscopy on the Internet could thus for instance be seen as a strategy to regain agency over one's scrutinized body and redirect the clinical gaze outwards to society. (Bauer and Olsén 2009, 118)

This line of thinking doesn't stand alone: Ball (2002) reviews a body of work that shows how knowledge gaps and alternative knowledges can give rise to resistance to surveillance technologies, how multiple social positions of the actors involved in surveillance practices can

¹¹ The selection of literature is guided by taking into account the criticisms directed to current surveillance studies. Critics state that there is a lack of concrete examples of the operations of and engagements with the assemblage (Prainsack and Toom 2010), that there is a lack of studies how specific subjects deal with surveillance (Haggerty 2006, 42), and a lack of theory on the issue of power relations and resistance (Fernandez & Huey, 2009). The selected case studies address these issues.

lead to multiple interpretations of surveillance-based data, and that the extent to which surveillance is sustained by users, for example in the work space, can be limited.

Ball, who is referred to as one of the few surveillance scholars that engages with ANT, presents a more specific version of this argument in a study on surveillance of the body, which she presents in terms of *alternative coding*. According to her, strategies of resistance can be understood as "disrupting flows of information" and "coding the body in an alternative way" (Ball 2005, 104):

Politicizing resistance to body-surveillance entails disrupting flows of information and code, recodifying, rewriting and resignifying categorizations of fleshmade-information at local rhizomes. This is predominantly an active linguistic strategy, whose objective is to implant a notion of empowerment and responsibility by writing new code and ultimately to promote responsible use of the categorization and codification systems them selves. (Ball 2005, 102)

In sum, the underlying idea in the approaches discussed above seems to be that by getting acquainted with the various actors involved, we can see how actors relate to each other, or to the technologies because they can be actors too, and how these actors interact. Several scholars understand these acts as forms of resistance because they undermine of divert surveillance effects. Sometimes they are more explicitly framed as acts of 're-appropriating': case studies show how specific users re-appropriate technologies according to their own views or needs, deviant from the way they were intended by their designers; or, put in a more Deleuzian way, they show how participants recode the technology in daily practices thereby adding a new dynamic or fluidity to the network; thus creating new and unforeseen roles and positions. As mentioned before, surveillance scholars call upon Latourian frameworks to get a more in-depth understanding of the role of things. A reflection from a Latourian perspective on the participative or interventionist arguments presented above, however, brings to light some problematic issues.

Criticising discourses of re-appropriation from a Latourian standpoint

Paradoxically, despite the effort to study the way human and non-human actors are intertwined, the 'interventionist' argument reaffirms a division between the social and the material that these authors explicitly wanted to dissolve. The line of thinking presented by Ball, as noted by Martin, Brakel, & Bernhard (2009, 216), assumes the presence of a subordinate agent, capable of interacting with the technologies, recognising and rejecting surveillance, and keeping a

bidirectional surveyor-surveyed relationship in tact. ¹² Furthermore, studies that describe how technologies are resisted in user-biased contexts, seem to treat group perspectives as pre-existing group preferences. Or, and this is the more politicised reading, users recode the technologies or reprogram the network according to their 'own' language. The social and the material are fused during developmental or implemental processes, but its functioning is still explained out of the 'needs' or the 'own views' of certain groups – be it designers, governments, workers, patients, repressed – whilst not making clear on what basis the groups and their expectations are delineated.

From a Latourian perspective this can be considered a social-constructivist trap, which means applying ideas of 'the social' to the world, while 'the social' should be that thing to be explained (Latour 2005). For example, if we state that a group of users, for instance designers, develops or modifies a technology in a way which conflicts with users in other environments, for instance workers or security personnel, we implicitly assume that these preferences are already there before the interaction with technological apparatus. By this move both the apparatus and the users' interests are black boxed.

This is a problem that, arguably, has to do with the starting point of research that codetermines who are the actors. Even a study as the one by Martin, Van Brakel & Bernhard, which surely doesn't make grand claims about users regaining control over technologies, and which does reflect on different forms of resistance relations, delineates the actors like 'the surveilled', 'international actors', 'surveillance authorities', 'surveyors artefact', and 'commercial actors,' lining them out them in a schedule with the interactions described subsequently. 13 The authors certainly do not claim that this set of actors is complete or that these actors are evenly strong. However, it is not so clear how the actors and groups were distinguished in the first place. From a Latourian point of view¹⁴ there are no groups but only group formations (Latour 2005, 27); just as the actor simultaneously emerges with what it does, not by what it is - or what it is taken to be. Furthermore, one needs to give clarity to the methods used: any delineation of groups should be able to be traced back to the way groups were and are being formed. By not making these delineations explicit, the researcher risks undertaking a political intervention by deciding on who is considered to be an actor and who accordingly has a voice or influence. One could in fact argue that we should work the other way around, and start with the action. This argument will be illustrated with a case study.

¹² Ball's second argument about distorting flows of information is not addressed here but needs to be elaborated upon

¹³ To be more specific, the objects are approached after the authors have informed themselves by concepts of resistance from an interdisciplinary perspective.

¹⁴ Of course, one can question whether one should follow Latour's 'point of view' that strictly. But because the paper responds to calls for ANT-inspired approaches, Latour is followed for the sake of the argument. Unfortunately, this conference paper doesn't allow enough space to include criticisms on (the politics of) ANT.

Explorations into Digital Methods: Activism on Facebook

By discussing this case study I would like to propose a different way to get a grip on the agency of technology, which doesn't start with defining the actors and revealing the interactions that correspond to certain actors' needs or social worlds. The case study also doesn't focus on a specific 'negotiation process' showing the interpretative flexibility of technology. What the study does is trying to get a hold on 'formats of action' expressed on Facebook. The research project was inspired by Latour's *Reassembling the Social* (2005), in which Latour makes an appeal to researchers not to impose social categories to research objects but to give the objects room to speak. The leading thought during the project was to stay as close as possible to the language of our objects of study (Latour 2005, 30) by using the methods the medium (Rogers 2009). Critically keeping in mind the approaches discussed above, this research can be taken as a suggestion for how to study technologies in a way that avoids starting off with preconfigured notions of actorship.

This project might therefore be seen more as an opening and invitation for future research than as a conclusive end to an argument. In our project design, Facebook was not approached as a network of surveillance; still, it is relevant for this paper because it relates to the theoretical discussion about user-technology interaction. Facebook can be, and has been, seen as a grand surveillance platform collecting data from its users, even from non-users (Roosendaal 2010), and stimulating practices of self-surveillance (Westlake 2008). Facebook activism has also been studied with discourses of re-appropriation similar to the ones criticised before. Facebook has repeatedly changed its privacy settings, after which Facebook's users protested by organising themselves into Facebook groups. See for example a Facebook group like 'MILLIONS AGAINST FACEBOOK's PRIVACY POLICIES AND LAYOUT REDESIGN'. By using the social network's own constituencies, users have pressured Facebook to turn back their privacy invasive measurements. This way of protesting has been considered as a 'contemporary' form of resistance, in which Facebook users "used the very means by which they were being surveilled (that is, the cyber-synoptic infrastructure of the Facebook network) to organize an internationally resistant movement to support their right to privacy" (Sanchez 2009, 275).

Alternatively, locating formats of action in our case study was a way to take position against claims about Facebook Activism that explicitly expressed such a divide between users' needs and the platform. Therefore, is not a study of an 'instance of action' that undermines surveillance, but it is put forward to open a discussion on whether these Latourian inspired methods of studying the social networking platform provide perspectives for further research on Facebook activism and whether it adds to the study of surveillance practices in general that

aim to take into account the agency of technology. First I will present a short introduction and reflection on the methods used.

ANT and Digital Methods

Latour criticises social scientists of importing notions of the social to research objects, instead of carefully following the way they order themselves. With a similar move, the Digital Methods Initiative criticises the application of established social research methods to the web. In short, 'importing' methods from social science to the web risks importing a pre-established order to your research objects, which can distract from the data (Rogers 2009, 2). Moreover, the web offers its own methods that can be used and repurposed by the web researcher: "Digital Methods seek to learn from the methods built into the dominant devices online, and repurpose them for social and cultural research. That is, the challenge is to study the info-web and the social web with the tools that organize them" (digitalmethods.net). The Digital Methods Initiative uses special software to analyse how, for example, links or tags, are treated by existing devices on the web, for instance, search engines or recommendation systems. Hence Rogers' claim to use the methods of the medium (Rogers 2001, 1)

Possibly, this might not be enough to deem Digital Methods as being 'Latourian'; let alone that it would require a discussion on whether the methods are 'inspired by theory' or whether the outlook of the developers of the software is what Latour would consider 'ant'-like (Latour 2005, 9). However, we can state that there are some shared working principles. To sum up a few of them: Digital Methods recognise that objects 'do stuff': objects can perform certain ordering or patterning practices, even editorial work; they can recommend information, and be friendly or hostile to other objects; Digital Methods' way of doing research is to trace what objects are doing: do they attach to each other, float away or do they break down; content is not regarded as being radically distinct from the medium; and in general, there is a tendency to do very site-specific research. To dive a bit deeper in the relation between digital methods and ANT it is helpful to provide a short discussion of Marres' dissertation on public controversies (2005) that explicitly connects a piece of software offered by the Digital Methods Initiative, the 'Issue Crawler', to ANT.

Marres turns to the web because the web, appearing as a "vast archive containing inscriptions of multitudes of interactions", makes social and political life *traceable* (Marres 2005, 110). ANT scholars are interested in how these, often messy, interactions pattern themselves:

¹⁵ These issues come up explicitly in for example Rogers (2000); Marres & Rogers (2005); Marres & Rogers (2008); Niederer & van Dijck (2010).

¹⁶ Not all of her remarks will addressed, because some are concerned with notions of (the) public that are not of our concern right now.

what are the ordering processes going on and how do translations take place that redefine the network? It is along those lines that Marres, by studying 'issue formations', combines a specific ANT concern with web research. Marres is interested in how controversies take shape on the web and for this purpose she uses the Issue Crawler, which visualises the network of websites implicated in an issue.¹⁷ The web not only shows how objects, such as documents, are active participants in the networks and "make up" the controversy (Marres 2005, 110), but it also shows how dispersed sources organise public affairs: "they can be seen to collectively put the affair in order on the web" (111).

Marres addresses the specificity of the medium, both as a place where the issue is performed and as a methodological device. Content is not separated from the medium, because the issue is defined by those actors with whom the issue connects up to. This is in line with ANT's concern that things are never, for example, 'political' or 'environmental' by character; they are so only by effect, as an achievement by the network. Furthermore, by following the links Marres analyses how issue definitions are displaced to, sometimes unexpected, addressees; thereby reconfiguring the issue and settling the affair. Or, put in ANT- discourse, she analyses how through translations public controversies reach forms of closure. To a certain extent, the Digital Methods Initiative in fact stimulates studies of translations by providing a whole set of tools, often used in a chain, to be able to follow different types of web objects.¹¹Ց Marres considers the Issue Crawler to be a suitable heuristic, because it is "aligned with 'the bias of the web'" (113): the tool uses the same principles as the issues do, by regarding links as indicators of recognition.

It is in that 'alignment' with the objects of study where the link with Latour (2005) is most clear. Digital Methods respond to a certain challenge for ANT, as pointed out by Latour: it is not always easy to get a hold on the active participation of objects. Sometimes their traces are not that clear and they tend to move silently to the background. This poses a challenge to the analyst: "This is why specific tricks have to be invented to *make them talk*, that is, to offer descriptions of themselves, to produce *scripts* of what they are making others – humans or nonhumans – do" (Latour 2005, 79). The tricks Latour refers to are the several ways by which ANT-scholars have dealt with the problem of mute objects and how they have triggered them to let them tell their story (Latour 2005, 80). The tactics are mostly related to certain settings or events: the study of innovations (or science in the making), encounters with new environments

¹⁷ This network is triggered by key words and a few URL's as starting points, but because the Issue Crawler works trough co-link analysis it is the links that determine both the network and its definition; even starting points will be filtered our when deemed irrelevant by the network.

¹⁸ Of course, not every digital methods research project is a study of translations. It might also be that a study of translations is particularly doable in controversial settings; controversies are among the most favourite working environments of ANT-researchers and they have extensively been elaborated upon in relation to web research (Marres 2005, Venturini 2010).

that catalyse processes of reassembling, accidents or breakdowns that show an object's strength, archives and historical accounts, and finally, the research of fiction as an experimental method. What Digital Methods add to this list is software that follows web objects and visualisation techniques that allow them to produce readable scripts, which is explained in more detail below.

Triggering Facebook

This research project originally started off in response to a few statements about 'Facebook Activism.' Some of these claims were of the intuitive sort, Facebook being 'the new way' of getting people to the streets or, on the contrary, Facebook being only good for 'slacktivism'. Another more empirically grounded claim was expressed by volunteer organisation *DigiActive* that aims to empower activists through the use of digital technology. The organisation states in a study on Facebook that "Facebook isn't designed for activism" (Schulz 2008). This claim bears similarities to the approach in the studies on user-technology interaction criticised earlier. The design of Facebook is contrasted with certain groups' or users' needs, activists in this case, which requires an idea of what 'activism' is, and a method to match this to the functionalities of the platform. *DigiActive* solved this by interviewing activists about their experiences with the platform and concluded that Facebook's functionality doesn't match what activists need.

In our project we tried to critically assess this type of approach that sets users' expectancies as the measure to evaluate whether Facebook suits activism. We did that not by providing contra-evidence, but by posing the question what sort of activism *can be found* on Facebook. What kind of engagements does Facebook enable?¹⁹ More specifically we aimed to get a better understanding of what kind of action is suggested by Facebook groups. In order to be able to do this, we tried to learn the language of Facebook with the help of web devices.

Our project in specific was meant to let Facebook produce scripts about activism. To get there, we posed the following questions: what sort of issues do well on Facebook, what kind of language do these issues exhibit and what kind of action do they advocate? To determine a point of departure, we tried to 'locate activism' trough key words that we considered to be 'stance words', types of words expressing a tendency for action or mobilisation. Examples of stance words are 'anti' (OR 'anti-'), 'against', 'stop', 'resist', 'stop', 'halt', 'support', 'help'.²⁰ We had to come up with a suitable way to examine Facebook, because usually Facebook is entered through a registered personal account. What you will then find is user-biased, because Facebook

¹⁹ In this sense, it is a similar to the type of question Marres poses when she analyses what is the 'sustainable home' according to different web spaces, and what that can tell us about the different forms of environmental engagement (Marres 2009).

 $^{^{20}}$ We checked by using Google the amount of results these stance words return from Facebook, which were hundreds of thousands.

anticipates on the user by regulating its environment on the basis of data left in the past. Therefore we entered Facebook through Google, which allowed us to get a grip on the most 'relevant' Facebook pages.²¹ 'Relevancy' here is based on what Google reports to be the most relevant on the basis of the search engine's analysis of the web.²²

To produce results that were also analysable we used 'Google Scraper', a tool that follows Google. Google Scraper queries Google for the occurrence of keywords in each URL and accordingly gives an overview of the most relevant pages according to Google. It also makes it possible to visualise the results according to their relevant sizes; in our case this was based on recurrent categories. To explain it more specifically: We queried Google Scraper for 'stance words' in Facebook groups and pages.²³ We zoomed in by continuing with four stance words, 'anti, 'pro, 'stop, and support', and selected the top 100 groups from our Google Scraper results. To see which groups were the biggest, we queried the top thirty-five for member count (by querying 'of * members'). We removed artefacts, for instance, groups named the 'Bus Stop'. The research material open for analysis was a set consisting of the thirty-five biggest Facebook groups from the 100 most relevant according to Google, based on stance language (see fig. 1).

	Method: Facebook groups sized by members	
Facebook Activism: Stop-Groups	Digital Methods Initiative	09 July 10
	Map generated by tools.digitalmethods.net	
acebook, so STOP CHANGING IT!	•	•
nal skinning in China - sign the petition F	.acebook(17170	၁၁ <i>)</i>
Stop Hillary Clinton:	(722587)	
LETS STOP DOLPHIN MASSACRE! 1 000 000 PEOPLE NE	EEDED, PLEASE INVITE	. (67852
Stop Barack Obama (310607) Petition: Facebook, stop invading my privacy! Facebook (72669) STOP RACISM! Facebook	(32934) STOP the Russian aggression against Georgia Faceboo	k(19954)
The Stop Community Food Centre Facebook (9125) Stop Blaming Capitalism, for Socialism's Failures Facebook (8382) Stop UK Adw	ertising Standards Authority creating an Israel Boycott (7281)	
Stop Islamisation Of Europe - SIOE Facebook (7174) STOP BITING EVERY TUESDAY @ Lo-Fi Facebook (6663) STOP THE WA	AR COALITION Facebook (5615) Stop Clause 152! Facebook (5	5088)
Stop BC Education Cuts! Facebook (4766) Stop Conversion Therapy Taskforce (4173) Stop The Thyroid Madness Facebook (40	87) Stop the Great HSBC Graduate Rip-Off!!! Facebook (3944)	
Stop Child Executions Facebook (3347) Stop The Tar Sands - end our addiction to oil Facebook (2792) STOP TB Facebook	acebook (2535) Sussex Stop the Cuts Facebook (2417)	
Stop the Australian Vaccination Network Facebook (1992) Stop the Throttlers Facebook (1953) Stop Bell From Throttling DSL Resellers Facebook (1953) Stop Bell From Throttling DSL Resell	acebook (1376) Stop Airport Strip Searches Facebook (1243)	
STOP FIRESTONE Facebook (838) STOP! HR2749 & Dood Safety Bills Facebook (758) Stop TB Facebook	book (332) Stop Med1web / Tourist Directory Facebook (83) Stop	p the War on Fun! Faceb

Fig. 1 Facebook Stop groups sized by members

²¹ Because Google Scraper takes a detour it is not connected to your personal search history.

²² Of course, one could question whether Google knows best what is relevant from a political or ethical perspective. However, given that our aim was to know which issues 'do well', we decided this was the best way to go, keeping in mind that we would rely on an indicators of authority.

²³ We queried for example: intitle:support site:facebook.com/group, intitle:stop site:facebook.com/group, etc.

Copy-paste decoding

We tried to refrain from overruling our research objects with pre-established categories and stayed as close as possible to the language of the Facebook groups. We did this through a manual analysis by asking four questions: the first concerned the 'who or what' the group was directed to, the second was about the Facebook category the group belonged to, the third questioned the topic of concern, and the last asked for the action of the group (see fig. 2). We copy-pasted what we considered to be answers to the questions in a spreadsheet.

To elaborate more on these questions: To whom or what against the group was directed, we called this 'the actor position', was easily found in the title of the group. Mostly this was already expressed by the keyword following 'anti', 'pro', 'stop', 'support'. For example 'STOP Missionaries for Charity'.

The second question concerned the group's category in response to Facebook's settings, which can be more than one. These settings are fixed and a group needs to submit to one of those settings. We called this 'Facebook behaviour' to indicate the dependency of this choice on Facebook's predefined settings.

To be able to indicate similar or overlapping topics of concern we intuitively composed 'meta-categories.' This was the third question: what kind of category could we assign to the groups, based on their own key words; what were these groups 'about'? Their topics turned out to be about, for example, the environment, human rights, self-determination, or open access. Our way of clustering was inspired by Latour's notion of 'infra-language' in which the analyst develops categories to be able to switch between frames of reference, but which stays faithful to the actor's language. Put in a more mundane way: the categories were composed *after* looking to the data, instead of composing a list of categories *before* doing the research.

By posing the last question 'What kind of engagement or action format does the group suggest?' we tried to get a grip on the 'issue-language' of the groups by registering the groups' explanation of 'how' they want to perform their stance of being anti/pro/stop/support. Issue-language was considered to be more issue-specific than infra-language because it is about what specific action is to be performed: it is about *how* to do the issue.

Question Answers

Actor position: To what or whom is the group	Title/info keyword following 'anti', 'pro', 'stop',
directed?	'support'
Facebook behaviour: What kind of category	The group's category in response to Facebook's
does the group submit itself to?	settings
Infra-language: What kind of 'category' or topic	Intuitively composed meta-categories, based on key
can we assign to the group?	words on the group pages. What is the group 'about'?
	Environment, human rights, self-determination, open
	access, etc.
Issue-language: What kind of engagement or	The group's explanation to 'how to
action format does the group suggest?	anti/pro/stop/support'

Fig. 2 Copy-Paste decoding

After having collected all the answers to our questions (a selection can be seen on the wiki of our project on digitalmethods.net²⁴), we clustered the results on the basis of their recurrence: we manually counted the amount of recurrent Facebook categories, topical meta-categories and action formats. Having quantitatively measured of the occurrence of each category and action format allowed us to visualise the relative sizes with Google Scraper. For the topic of this paper the clouds of the topics and action formats are most relevant. I selected the clouds of the 'stop groups' (see fig. 3 Infra-language & fig. 4 Issue-language), but the rest of the clouds can be viewed on the wiki. At the final stage of the project, we made a Bubble line to visualise the total amount of action formats of all the four groups and their relative sizes (fig. 5).²⁵

²⁴ http://wiki.digitalmethods.net/Dmi/TrainingProgramProjectFacebook

²⁵ There is a little distortion in the upper row in the Bubble line. This is due to corrections of mistakes made in the first map, which I corrected manually.

health (4) Environment (3) Fraud (2) Digital Rights (2)

 $Discrimination (2) \ Education \ / \ Budget \ cuts (2) \ War (2) \ {\it Children's rights (1) Privacy (1) Geopolitics (1) Politicians (1) Food safety (1)} \ {\it Children's rights (1) Privacy (1) Geopolitics (1) Politicians (1) Food safety (1) Geopolitics (2) Food safety (1) Geopolitics (2) Food safety (2) Geopolitics (3) Food safety (3) Geopolitics (4) Food safety (4) Geopolitics (4) Geopolitics$

Islamisation (1) Exploitation (1) Conspiracy (1) Nightlife (1) anti-facebook (1) anti-Capitalism (1) Animal rights (1)

Fig. 3: Stop Meta Categories (Infra-language)

	Method: Facebook Action Formats sized by number of groups
Facebook Activism: Stop Action Formats	Digital Methods Initiative 09 July 10
	Map generated by tools.digitalmethods.net

join (12) learn (10) petition (9) awareness (9)

mailinglist (6) leave Facebook (6) invite friends (4) show support (3) email (3)

discuss (2) volunteer (2) donate / buy (2) sign up (2) vote (1) show disgust and opposition (1) visit site (1) official complaints (1) online volunteering (1) network spread (1) call for action (1) community meetings & Description (2) letter writing (1) link to this group (1) solidarity (0) fundraise (0) boycott (0) watch video (0) sidewalk counselling (0) hug (0) protect (0) pray (0) provide resources (0) report (0) offline attendance (0) sabotage (0) guerilla (0)

Fig. 4: Action Formats (Issue-language)

	Method: Facebook Action Fo'rmats sized by number of groups	
Facebook Activism: Formats of Action	Digital Methods Initiative (09 July	10
	Map generated by tools. digitalmethods net	
awareness cott it for action ity meetings donate email fundraise mila invite friends show show	ources ort sabograge disgust and opposition ort sabograge disgust sypportal K. Coumseling ort sabograge disgustry sympton up olidaarity site olunteer	0,
39) (7) (12) (3) (13) (14) (15) (13) (13) (13) (14) (4)	(4) (2) (1)	Total
	(a) (b) (c) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	Support Pro Stop
Fig. 5: Formats of Action		

Results

If we look at the total of action formats (fig. 5) we see the results tending towards lightweight engagement and network spread features of Facebook, (learn, join, awareness). Learning seems to be present the most. Furthermore we see old school support strategies (donating, letters, petition, etc.), offline attendance, and other varieties of network-dependent action (spread, mailing lists, calls for leaving Facebook).

What is it that these groups want to learn and raise awareness about? What issues do they want people to join, expressed by what we have called 'infra-language'? Anti-groups focus the most on fascism (3), Facebook (3) and racism (3), Pro-groups have reproductive rights on a high top (15) followed by 'cultural exchange' (3), Stop-groups engage with health (4) and environmental issues (3) and support-groups have 'reinstatements' (7) and health (6) as core issues.

Anti, Pro, Stop and Support groups differ in the way they constitute their action formats. Anti-groups seem to be more oriented towards direct action, Pro-groups tend towards awareness and spreading, Stop-groups promote joining, signing petitions, and specific and short term protests, and Support-groups stand for solidarity and letter writing. These last results are not so surprising and might also be triggered by the terms.

Who are the actors?

One of the main contributions of the project is that actorship becomes a question, because who or what is acting is not determined. As pointed out in the beginning of this paper, scholars of surveillance technologies are said to omit empirical specificities of how things in surveillance systems act. Attempts to grasp surveillance networks often goes hand in hand with preconfigured notions of actorship or a user-technology interaction analysis, which reestablishes the two-actor paradigm that these scholars were precisely trying to escape. Latour's notion of an actor is a very nuanced one. An actor can only be defined by what it does and it cannot do much without the setting: the network that allows him to act. With this project we tried to take that claim into consideration. By distilling *repertoires of action*, actorship does not fall back into a user-technology distinction, but it becomes a question of enactment. Similarly, we didn't determine what activism should be about. What we have tried to do with this project is to redefine 'Facebook activism' by taking a closer look at what Facebook groups state they are about. By making this move, we can also put several claims about Facebook Activism into perspective, because activism on Facebook turns out to be about a wide range of topics that are

²⁶ Reinstatements of people being fired or convicted.

mobilised in several ways. By using web devices and letting us in a sense be guided by Google and indicators of success on Facebook, we redefined activism as a network of possibilities.

However, this is not just fluid; we do see patterns. For example, repertoires of educational activism are dominant. As already mentioned earlier, Facebook protests are sometimes argued to be a 'contemporary' form of resistance, because users have turned the platform against itself to reclaim their privacy (Sanchez 2009, 275). Such cases are interesting examples against views that overstress the repression of surveillance, but still the question remains what is their scope and what exactly do they illustrate.²⁷ In our results we found out that one of the larger groups is indeed directed at Facebook itself. In fact, the 'We Hate The New Facebook, so STOP CHANGING IT!!! – group' is the biggest within the pool of most relevant 'stop-groups' selected by Google (1.618.754 members).²⁸ Clearly, the claim that Facebook users use Facebook against itself is a valid one. However, by taking the recurrence of action formats as a point of departure, we mainly find raising awareness and learning, which are quite 'traditional' practices of involving people in certain issues. Therefore, this approach can add to other case studies on Facebook activism by getting a hold on the relevance of certain *repertoires of action* compared to others (see also Latour 2005, 55).

The frequent recurrence of certain repertoires of action compared to others might say something about Facebook as a platform though, which could help us relate to the study by *DigiActive* as well. Possibly, the relatively bigger presence of non-confrontational formats, such as learning, in comparison to direct action can be taken as an indication that Facebook is more friendly to non-conflictual expressions, versus those of contention.²⁹ Getting familiar to the language of the medium, knowing which formats 'work', could also open possibilities to connect up with the medium, or to target it.³⁰ Of course, these are all preliminary suggestions and further research is needed, for example, by examining bigger samples or similar studies with other varieties of action language (for instance 'act' 'influence' or 'do').

²⁷ Sanchez (20009), for example, uses the concepts 'resistance-through-distance' and 'resistance-through-persistence' to assess the protests. However, there is also something uncomfortable about case studies being an 'instance' of something, like a concept. Latour would say a good case study doesn't need 'something else' to make it an instance of (Latour 2005, 143).

²⁸ If we look closer to the data, we see that the strategy of how to impact Facebook is quite old fashioned: by signing a petition.

²⁹ Facebook experts have made similar claims about Facebook not 'liking' conflicts and negativity. Tobias Leingruber, organiser of a 'Facebook-resistance workshop' (Mediamatic, April 2011) names some examples, like the absence of a 'dislike-button' and the act 'unfriending' being invisible for the users being unfriended.

³⁰ For example the 'dislike-button' is installed by more than one million Facebook users, hereby adding a conflictual dimension to the platform. The piece of software promotes itself, because if somebody doesn't have it, the person will see a text disliking a post with a link to the software.

Conclusions and suggestions for further research

ANT contributes to existing studies on surveillance because it encourages researchers to take the activity of objects into account by explicitly not privileging the agency of human actors or social categories. It is the relations and interactions that together form the network that enables the activity of the actors. The ANT's dictum to just 'follow the actors', however, does not always give the expected effect, as has been illustrated by a literature review, because starting with defining the actors can inhibit seeing networks as constitutive and agents as emerging from the network.

Alternatively, the case study on Facebook activism tries to take a reverse route. In this study we used tools built on top of web devices, which allowed us to follow how they handle key words. This method allowed us to get close to what we understood to be the infra- and issuelanguage of our objects of study. By analysing action formats (the responses to 'how') instead of using notions of activism in advance, we came to understand Facebook activism as a network of possibilities. Getting a grip on such networks, gave us an indication of what type of action is stimulated on Facebook. Patterns are recognisable that tend to educational activism. Further research has to show whether this holds. Moreover, by getting an understanding of which types of action is enabled on Facebook one can relate to questions raised in the surveillance literature about what kind of information and activity is controlled (Donaldson & Wood 2004, 380), or how surveillance systems effectuate new subject positions (Prainsack & Toom, 1129). These questions should be taken in account in subsequent case studies.

A possible objection to the focus on the medium's 'language' is that there might be a danger of naturalising the medium, or maybe even 'anthropomorphising' the medium. After all, what kind of presuppositions does the notion of 'allowing objects to speak' entail? Latour might reformulate the objection by saying that anthropomorphism is a categorical mistake by itself: the object is already anthropomorphic in the sense that it shapes the position of humans and human action (Latour 1992).³¹ Still, if our objects are 'speaking', then we need to take into account how the network enables them to speak and our role in making the objects speak. For instance, in our case study we stimulated Facebook producing scripts in collaboration with the Google-algorithm, Facebook member-counts, and certain types of visualisations. These choices might have been made for pragmatic reasons, but their political implications do need further discussion.

³¹ Latour uses the example of the 'groom' when making this argument (235).

Literature

- Adey, P. "Secured and sorted mobilities: examples from the airport." *Surveillance and Society* 1.4 (2004): 500–519.
- Amsterdamska, O. "Review: Surely You Are Joking, Monsieur Latour!" *Science, Technology, & Human Values* 15.4 (1990): 495-504
- Ball, K. "Elements of surveillance: A new framework and future directions." *Information, Communication & Society* 5.4 (2002): 573-590.
- Ball, K. "Organization, surveillance and the body: towards a politics of resistance." *Organization* 12.1 (2005): 89. Print.
- Bauer, S. and Olsén, J.E. "Observing the Others, Watching Over Oneself: Themes of medical surveillance in post-panoptic society." *Surveillance & Society* 6.2 (2009): 116-127.
- Callon, M. "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay". *Power, Action and Belief: A New Sociology of Knowledge?* London: Routledge, 1986
- Caluya, G. "The post-panoptic society? Reassessing Foucault in surveillance studies." *Social Identities* 16.5 (2010): 621–633.
- Deleuze, G. "Postscript on the Societies of Control." October 59 (1992): 3-7.
- Deleuze, G. & Guattari, F. A Thousand Plateaus. Capitalism and Schizophrenia. London: Continuum 2009 [1987].
- Donaldson, A., and D. Wood. "Surveilling Strange Materialities: Categorisation in the Evolving Geographies of FMD Biosecurity". *Environment and Planning D* 22 (2004): 373–392
- Farías, I. "Decentring the object of Urban Studies", in: Ignacio Farías and Thomas Bender (Eds.). *Urban Assemblages*: How Actor-Network Theory changes urban studies. Oxon: Routledge 2010, 1-24
- Fernandez, L. A, and L. Huey. "Is Resistance Futile? Thoughts on Resisting Surveillance". *Surveillance & Society* 6.3 (2009): 199–202
- Foucault, M. Discipline and Punish. The Birth of the Prison. London etc.: Penguin Books, 1991 [1977]
- Haggerty, K. D, en R. V Ericson. "The surveillant assemblage." *The British Journal of Sociology* 51.4 (2000): 605–622.
- Haggerty, K.D., en R.V. Ericson. *The New Politics of Surveillance and Visibility*. Toronto: University of Toronto Press, 2007
- Haggerty. K.D. "Tear down the Walls: On Demolishing the Panopticon". In: David Lyon (ed.) *Theorizing Surveillance: The Panopticon and Beyond*. Devon: Willan Publishing, 2006
- Latour, Bruno. Science in Action. Harvard University Press, 1987
- Latour, B. "Visualisation and Cognition: Drawing Things Together". Representation in Scientific Practice. Ed. Michael Lynch and Steve Woolgar (1990)
- Latour, B. "Where Are the Missing Masses? The Sociology of a Few Mundane Artifacts". W.E. Bijker &J. Law (eds.), Shaping technology/Building Society. Cambridge MA: MIT Press, 1992. 225-258.
- Latour, Bruno. The Pasteurization of France. Harvard University Press, 1993
- Latour, Bruno. *Reassembling the social: an introduction to actor-network-theory*. Oxford; New York: Oxford University Press, 2005.
- Law, John. "Notes on the Theory of the Actor-network: Ordering, Strategy, and Heterogeneity". *Systems Practice* 5.4 (1992): 379-393.
- Lyon, David. Surveillance Studies: An Overview. Polity, 2007.
- Lyon, David. Surveillance as Social Sorting: Privacy, Risk, and Digital Discrimination. Routledge, 2003 Marres, N. No Issue, No Public: Democratic Deficits after the Displacement of Politics. Diss.
 - Universiteit van Amsterdam, 2005
- Marres, N. "Sustainable Homes". Digital Methods. Mappingcontroversies.net, 2009
- Marres, N. & R. Rogers. Recipe for Tracing the Fate of Issues and Their Publics on the Web. *Making Things Public: Atmospheres of Democracy.* Latour, B., Weibel, P. (Eds.) ZKM; Cambridge: MIT Press, 2005: 922-935
- Marres, N. & R. Rogers. "Subsuming the Ground: How Local Realities of the Fergana Valley, the Narmada Dams and the BTC Pipeline Are Put to Use on the Web". *Economy and Society* 37.2 (2008): 251.
- Martin, A.K, R.E van Brakel, en D.J Bernhard. "Understanding resistance to digital surveillance: Towards a multi-disciplinary, multi-actor framework." *Surveillance & Society* 6.3 (2009): 213-232.
- Marx, G.T. "What's New About the 'new Surveillance'?: Classifying for Change and Continuity". *Knowledge, Technology & Policy* 17.1 (2004): 18-37.
- Niederer, S., and J. van Dijck. "Wisdom of the Crowd or Technicity of Content? Wikipedia as a

- Sociotechnical System". New Media & Society 12.8 (2010): 1368-1387
- Prainsack, B., en V. Toom. "The Prüm Regime: Situated Dis/Empowerment in Transnational DNA Profile Exchange." *British Journal of Criminology* 50.6 (2010): 1117
- Rathenau Instituut. *Van Privacyparadijs Tot Controlestaat? Misdaad- En Terreurbestrijding in Nederland Aan Het Begin Van De 21ste Eeuw*. Den Haag: Rathenau Instituut, 2007.
- Rogers, Richard. Preferred Placement: Knowledge Politics on the Web. Jan van Eyck Akadamie, 2000.
- Rogers, R. "The end of the virtual". Text prepared for the Inaugural Speech, Chair, New Media & Digital Culture, University of Amsterdam 8 May 2009.
- Roosendaal, A. "Facebook Tracks and Traces Everyone: Like This!." SSRN eLibrary (2010)
- Sanchez, Andrés. "Facebook Feeding Frenzy: Resistance-through-Distance and Resistance-through-Persistence in the Societied Network." *Surveillance & Society* 6.3 (2009): 275-293.
- Schuilenberg, M. "Assemblages." *Deleuze Compendium*. (Eds. Ed Romein, Marc Schuilenberg, Sjoerd van Tuinen. Amsterdam: Boom 2009, 205-223
- Schultz. "A Digi Active introduction to Facebook Activism.", 2008.
 - http://www.digiactive.org/2008/06/28/guide-a-digiactive-introduction-to-facebook-activism/
- Venturini, T. "Diving in Magma: How to Explore Controversies with Actor-network Theory". *Public Understanding of Science* 19.3 (2010): 258
- Westlake, E. J. "Friend me if you facebook: Generation y and performative surveillance." *The Drama Review* 52.4 (2008): 21–40. Print.
- Wood, D. "Foucault and Panopticism Revisited." Surveillance & Society 1.3 (2003): 234.
- Wood, D. "Beyond the Panopticon? Foucault and Surveillance Studies." Space, Knowledge and Power. Foucault and Geography. (Eds) Jeremy W. Crampton and Stuart Elden. Hampshire: Ashgate Publishing Limited 2007