Unscrewing social media networks, twice

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Abstract

Social media are often claimed to be an important new force in politics. One way to investigate such a claim is to follow an early call made in actor-network theory (ANT) to "unscrew" those entities that are assumed to be important and show how they are made up of heterogeneous networks of many different actors (Callon and Latour 1981). In this article I take steps towards unscrewing seven Facebook pages that were used to mobilize citizens for and against road pricing in Copenhagen in 2011-2012. But I encounter the difficulty that social media are already explicitly understood in Internet Studies and beyond as facilitating processes where many actors are united despite their differences into some kind of larger force, as expressed in concepts such as the "networked public sphere" (boyd 2010; Ito 2008). This challenges the usefulness of ANT, I argue, because the notion of network is so vague that it can be combined with liberal notions of a singular public sphere (Somers 1995b; 1995a). In order to unscrew social media as a political force, I suggest that we need to work through both the assembling of social media networks *and* attend to corresponding reconstructions of liberal political narratives. As such, I argue for the need to unscrew

social media twice, and I take this as an occasion to deal with some of the limitations of ANT when it comes to digital media.

Keywords networks, ANT, social media, public pressure, Facebook

Introduction

> The political centers of power are moving away from the parliaments and out to social media. It is especially so in crises, where the digital reality poses en- tirely new challenges to political leadership. (*Mandag Morgen* 2015:1)[1]

Social networking sites, or social media, are today positioned as an important new force in politics.

The quote above, which stems from a prominent political analysis magazine in Denmark, illustrates how this interest is marked by hopes that social media offer new avenues for public participation in politics. Such claims about the redistribution of political power with web technologies have moved out of the academic literature (e.g. Castells 2009) and become commonplace in the press in recent years. At the same time, these hopes are accompanied by a number of corresponding critiques, which highlight various shortcomings of social media participation. The impact of social media has for some time now been understood to be strongest in crises or in relation to single issue politics (Bennett and Segerberg 2012), and social media are claimed to facilitate the development of so-called "echo chambers," where people group together with people they agree with and only receive information that confirms their existing views on an issue (Sunstein 2006; Pariser 2012).

What is noteworthy about the hype about social media participation, whether optimistic or pessimistic, is that it is to a significant extent modeled on previous understandings of the role of media in democratic societies. When social media are described as giving rise to a "networked public sphere" (boyd 2010; Ito 2008) and the identification of echo chambers becomes one of the main way of assessing the health of this sphere, a parallel is drawn between social media and the critical role that the free press was once supposed to play in democratic societies. This idea is also expressed in

the notion of the Internet, and not least social media, as the "fifth estate" of modern democracies (Dutton 2009).

Similarly to the 'offline' press that went before, scholars in Internet Studies associate social media with an ability to generate public pressure. The notion of a digital "reality" used in the opening quote is suggestive. Following this line of thinking, one reason why social media should be taken as a force to be reckoned with is that it is not always possible to impose a certain version of reality on social media platforms. On the contrary, social media seem to facilitate the organization of large groups of people who understand things differently from those in power. Once this happens, it does not matter so much who is right and who is wrong, because social media assemblies are themselves a "digital reality" that cannot be ignored.

A case of such social media driven public pressure appeared in Denmark in 2011 and 2012, when protests broke out against plans to introduce congestion charges in Copenhagen by constructing what came to be known as a 'payment ring' around the city center. Some of these protests appeared on social media, which became the occasion for claims such as the following in the Danish news media:

> The payment ring (…) [belongs to a set] of issues, where the political agenda seem to have been strongly influenced by opposition from groups in the population that have started their protests on social media, and where the protests have been picked up by the large media companies in the country – and in the end by the politicians, who have turned on a dime after media storms lasting days or weeks. (Rekling 2014)

The payment ring controversy offers a specific instantiation, then, of the new force in politics that social media are claimed to be. The question I wish to raise in this paper is how this force can be scrutinized.

The ANT craft of unscrewing

One way to probe the idea that social media are a new political force is to follow an early call made in actor-network theory to unscrew those entities that are assumed to be "large" or "macro" actors (Callon and Latour 1981). Callon's and Latour's argument takes off

from Thomas Hobbes's social contract theory (Hobbes 1996), which they see as the first formulation of a relationship between micro and macro actors, where all differences in size are the results of transactions (Callon and Latour 1981). While there are thus no *a priori* larger or smaller social actors in Hobbes's political philosophy, humans unite through a social contract to create a sovereign, making each individual appear as a micro actor and the sovereign as a macro actor. As Callon and Latour formulate it: "The sovereign is not *above* the people, either by nature or by function, nor is he higher, or greater, or of different substance. He is the people itself in another state – as we speak of a gaseous or a solid state" (Callon and Latour 1981:278, italics in the original).

Callon and Latour do not believe that Hobbes's social contract theory is a good description of reality. But they see his formulation of the relationship between micro and macro in society as valuable because it speaks to the notion of translation. This is a key concept in ANT, which captures the work and sometimes violence it takes to transform several actors into a single will (Callon 1986). Contrary to Hobbes's thinking, this is not a primordial ceremony of society that happens once and for all, but something that happens all the time and in several ways at once.

The methodology that Callon and Latour propose for doing a sociology of translation is to think of actors as networks. There is an important difference here between the radical position of thinking of actors *as* networks and the more superficial understanding of actors *in* networks. Thinking of actors *as* networks is to take the consequence of the role of translation in social life: to insist that differences in size (or better, perhaps, "reach") of actors as the result of "net-work," in the sense of translation work (Latour 2005).

Unscrewing social media

Thinking of social media as networks, however, does not necessarily require actor-network theory. Social media already operate explicitly in terms of networks. The content you are served on a social media site, such as Facebook or Instagram, is based on the network of friends and acquaintances that you have registered connections with on that site. More specifically, the importance of something is already defined in terms of aggregates of micro actors. A Twitter tweet is arguably only as "large" as the number of actors who

choose to retweet it and thus make the tweet appear among their own tweets. The number of retweets is emphasized by the Twitter interface, and its significance is ensured by the algorithms that select tweets for extra exposure based on retweet popularity. Facebook posts and Facebook pages grow in size in the same way by associating itself with more people (Gerlitz and Helmond 2013).

So while Callon and Latour propose that we pay special attention to how micro actors are translated into macro actors, social media already foreground translations of this sort. The space for a 'network argument' thus seems to be pre-occupied when it comes to these media. However, once these processes are scrutinized in a bit more detail, it becomes evident that while social media already foreground networks, their political significance tends not to be understood in network terms – at least not in the way networks are thought to work in ANT.

In the following, I try to demonstrate this by unscrewing a set of Facebook pages related to the abovementioned controversy over congestion charges in Copenhagen. I go into some detail about how such pages combine individual actors into a larger force. At the same time I observe how the networked character of these operations gets lost in popular interpretation. My argument is that even though a social media platform such as Facebook seems to lend itself easily to 'unscrewing' of larger political forces into individual actors, social media participation continue to be understood in relation to a public that remains firmly 'screwed' together.

An alternative strategy for problematizing the use of the network concept in relation to social media would be to point out that there is a substantial distance from the notion of *social* networks to the ANT analysis of *heterogeneous* networks (Venturini, Munk, and Jacomy forthcoming; Marres 2006). This is an important point, but it comes with a risk of reverting to an analysis that instead privileges materiality (Parks and Starosielski 2015). In this paper I focus on a different challenge, proposing that in order to gain analytical purchase from the explicitly networked affordances of social media, we need to unscrew social media *twice* – both in terms of tracing their networked nature and in terms of opening the liberal understandings of their political significance for scrutiny.

Quantitative analysis and the petition critique

While the payment ring issue generated a variety of activity on social media, I limit my analysis here to 7 Facebook pages that were all open to public viewing, and which all attracted a meaningful amount of contributions from Facebook users. Five of the pages were positioned against the payment ring project, while two were pro-payment ring pages. Here is an overview of the Facebook pages including their numbers of supporters, or 'likes', from September 2013:

Page name	Supporters
Contra payment ring pages	
"15 good reasons to oppose the payment ring"	2231
"Motorists against the payment ring"	1254
"No thanks to the payment ring"	638
"No to the payment ring"	2452
"I believe all motorists should be able to drive in and out of Copenhagen for free"	1496
Pro payment ring pages	
"Congestion ring now"	241
"I am for a payment ring"	1624
TOTAL	9936

Table 1: Seven payment ring-related Facebook pages and numbers of supporters

Counting support is a way of analyzing such pages that I share with Facebook. The number of likes that a page has received is automatically summarized and shown. For some analysts, these numbers raise the question of whether they are large or small. When a journalist found some of these Facebook pages in relation to the payment ring controversy, he argued they were not very impressive given how more than half of all Danes have a Facebook account, and that there are other protest pages that have managed to attract supporters in the tens of thousands (Meilstrup 2012).

The Facebook pages are here understood as a sort of online petitions. The result is that the number of likes a given page has is compared to a hypothetical number of potential likes that is deter-

mined by the size of the Danish population. If the numbers are found to be small in comparison, they are argued not to be representative of the Danish public (ibid.). What gets lost in such an analysis, however, is how a Facebook page is more than a like count. It is also a stream of activity where administrators and other users post content. Indeed, this is what makes it into a 'page'. The following table includes a new set of numbers that count activities such as posting and commenting.

Page	Supporters	Posts total	Comments	All acts of engagement[2]
"15 good reasons…"	2231	163	306	2116
"Motorists against the…"	1254	186	269	1288
"No thanks to payment…"	638	212	216	1540
"No to the payment ring…"	2452	470	1069	6604
"I think all motorists…"	1496	373	985	4531
"Congestion charges now"	241	66	22	333
"I am for a payment ring"	1624	111	95	685
TOTAL	9936	1581	2962	17097

Table 2: Activity counts on the seven Facebook pages

Contrary to the number of likes, these other counts were not offered by Facebook's user interface, but had to be found through accessing the Facebook API with the research app Netvizz (Rieder 2013). The table shows that there are a total of almost 3000 comments on the seven pages. Contrary to the number of likes/supporters, the number of comments does not lend itself to be measured against the size of the population in Denmark. While each individual Facebook user can only press 'like' once, he or she can choose to submit many comments – or none. Indeed, the distribution of comments proves to be quite uneven across users. For example, the page on the top of the list, called "15 good reasons to oppose the payment ring," gathered 2231 users. Out of these, the Netvizz data shows that only 169, or less than 10%, made comments. Of the 169, 45 made more than one comment, and only two users made more than seven comments. These two users were very active, however – both made more than 20 comments. In total, the comments of these two users constitute 16% of the total number of 306 comments on that page.

This observation suggests that while the pages lend themselves to be understood and critiqued as petitions, at the same time they are different from petitions. More specifically, they are produced by networks of users that interact and play strongly differing roles in these interactions. Some users are very active with comments and posts, while many users are passive aside from having liked the page in the first instance. Understanding the pages as networks of more or less active users allows for a more nuanced understanding of how public pressure is constructed with Facebook, but the understanding of the Facebook pages as online petitions does not have room for such distinctions, although they are well-known dynamics on the web (Shirky 2008).

Network analysis and the echo chamber critique

Facebook facilitates the ongoing development of complex interactions that can be understood in network terms. This is foregrounded by Facebook in various ways, such as when a personal profile page consists of links to various other actors and settings that together make up a description of a particular person. Latour has remarked that this technique facilitates a sort of ANT analysis by explicitly presenting an actor as a sum of relations (Latour et al. 2012). In relation to the protest pages examined here, it was just observed that these pages are made up of not only a number of supporters, but also of comments and posts that are unevenly distributed across these supporters. As such, each page can be understood as the sum of relations to a number of Facebook users, who are heterogeneous in the sense that they each have their individual patterns of activity. For instance, one supporter may be posting comments on several anti-payment ring pages, while another may never have posted a single comment.

With the aid of Netvizz, it is possible to access a graph of how the 7 Facebook pages are connected by user activity. The below graph visualization shows interactions between individual users and individual posts on the 7 pages:
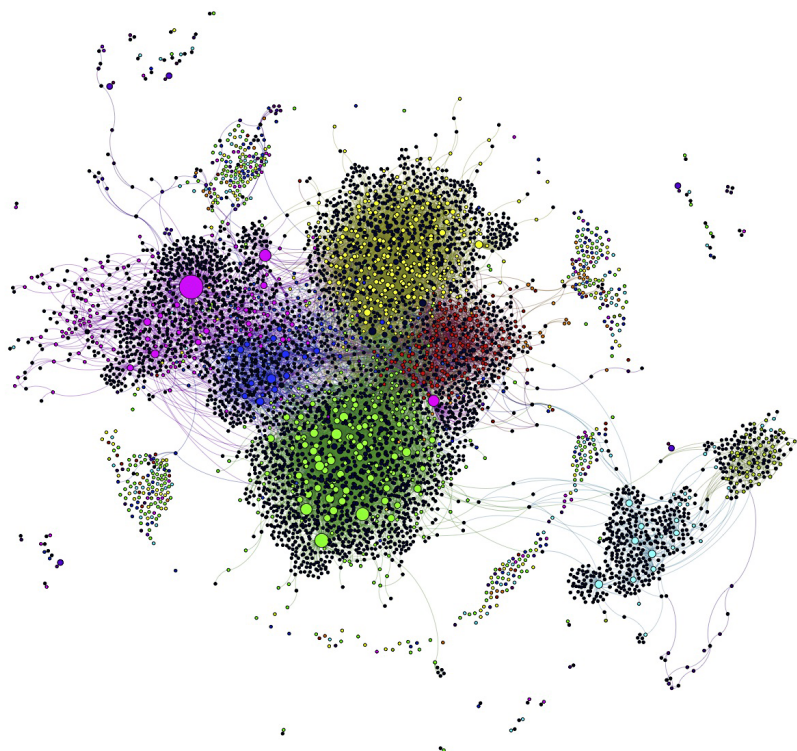
Figure 1: A Gephi visualization of user-post interaction on the seven Facebook pages

The posts are colored according to what page they belong to. All the black nodes are users. Each time a user has engaged with a specific post, a tie is created between the user and the post, pulling the two nodes closer together in the visualization (Jacomy et al. 2014). The network consists of two components. In the center, there is the main component, which consists of five Facebook pages. Their closeness can be interpreted in relation to the smaller component in the lower right corner. Here are the two last pages, which cluster quite nicely around themselves, but also, to some extent, with one another. The distance between the two components proves to be analytically meaningful, because the five pages in the main cluster are all opposed to the payment ring project, while the two pages to the right are both supportive of the project.

One way to interpret the network of user-post interaction, then, is that the controversy appears clearly polarized. Such a conclusion would underpin to the abovementioned critique of social media participation concerned with the formation of echo chambers, where users are shielded from those they do not agree with (Pariser 2012, Sunstein 2006). An echo chamber critique could highlight that there are only about ten ties between the two clusters in the network, meaning that only about ten users out of ten thousand have been active across the pro and con divide.

However, the notion of echo chambers assumes that there is an open space of public deliberation that the echo chambers are shutting users out of. But the quantitative analysis indicated that the Facebook pages are not sites of equal deliberation in any straightforward way. Most users are completely passive when it comes to taking part in the more "deliberative" aspects of posting and commenting. A few users get to dominate the space by posting and commenting much more than others. Instead of arguing that there should have been an open dialogue, it seems more relevant to ask questions about who these users are and why some are more active than others. Such an approach could use the network visualization to identify actors that contribute in various ways to constructing public pressure with Facebook.

Unscrewing Facebook in two ways

So far, I have shown how Facebook pages used in relation to a public controversy can be unscrewed in different ways. The purpose has not been to perform a fully-fledged quantitative or network analysis of the pages, but to demonstrate the need to unscrew the Facebook pages in two senses of the word.

The first sense of unscrewing is the classic ANT sense (Callon and Latour 1981). In this perspective, one should deploy whatever method is needed in order to unpack the 'net-work' that happens each time a social media assembly comes across as a powerful political force. For example, I have shown that there are many Facebook users involved, some of which are much more active than others. This suggests that what was taken by some observers as a poll of the Danish population, given the widespread use of Facebook in Denmark, is also the work of a few industrious activists. We have also seen how Facebook users can support several Facebook pages,

making each of them look larger than they are if treated as petitions in the mode of "one vote per head." These observations help explain how social media can come to be seen as a macro actor in contemporary democratic politics.

In observing these dynamics, I have suggested that they come with connections to ideas and concepts found elsewhere, such as petitions and public debate. Facebook's political importance is understood with the help of quite conventional understandings of public participation in politics. To recapitulate, social media was accounted for and critiqued as a sort of online petition with an insufficient number of participants, and as a trap that leads users into echo chambers and robs them of the capacity of rational deliberation they are assumed to have.

These critiques are flipsides of the hopes noted in the introduction that social media have the capacity to unite people into a new political force. An important part of this hope is that social media have network affordances that allow people to organize in ways that are alternative to existing political institutions. From an ANT understanding where no actors are *a priori* micro or macro, social media are interesting because they explicate how individuals shift dynamically in and out of assemblies such as Facebook pages that can then constitute public pressure to some extent. What decides the extent of such pressure is the difference it makes in practice. For instance, the anti-payment ring Facebook pages may have contributed to solidifying the view that a payment ring is undesirable in Copenhagen by carefully mobilizing particular observations and people.

However, when such social media dynamics are analyzed with concepts like petitions and public debate, the question shifts into an all-or-nothing question of whether social media assemblies constitute the free voice of the people or not. Margaret Somers (1995a, 1995b) has shown that while the notion of a public sphere tries to mediate between the classic liberal domains of the public and the private, it remains grounded in the private, or the social, as a voice against public authorities and the state. The result is that the dichotomy at the bottom of liberal political philosophy is reproduced, and the public sphere remains singular in its opposition to the state, as with the similar notion of civil society. A particular set of problems follow, which have to do with the legitimacy of such a social counter force to established authorities. In the Copenhagen case

such questions took center stage when the Facebook pages were understood as either an on-going polling of the Danish population or the tracing of vested interests locked into echo chambers.

Part of what is at stake here is what the word "social" in "social media" comes to mean. When the political significance of social media is interpreted with concepts such as public sphere and civil society, the world is cleaned up into distinct domains of authorities on one side and a social counter-force on the other. The result is that the networked character of social media only plays a role in so far as it can legitimize a civic political force by affording openness. Following an ANT understanding of "social", however, what is at stake is not a distinct social domain, but the construction of associations (Latour 2005). Here is a way to approach social media that focuses on how particular groups and issues emerge and are qualified through specific dynamics of liking, commenting and posting that I have discussed above.

What is also at stake is how to make analytical use of the status of social media as social 'networking' sites. The current hopes and fears for social media as a political force suggests that the network dynamics here easily come to be understood in pre-existing registers of liberal political philosophy. Perhaps this is an added risk when dealing with media, since studies of media have often been cast in terms of liberal understandings of political participation as something that takes place in the public sphere (Carpentier 2011; Dahlgren 2013). The problem for ANT here is that the construction work that ANT can usefully foreground is taken as suspect when it seems to reveal how social media participation only mimics the 'real' civil society or public sphere.

In order for the ANT understanding of networks to be useful in an era of social media, the ANT method must be equipped to not just trace translations of agencies, but also deal with the presence of what could be called counter-methods that are already operative in the understanding of social media assemblies. When a Facebook page is understood as a petition by journalists or the designers of Facebook's user interface, these understandings are performative of how Facebook gets used for political participation. At the same time, Facebook has networked dynamics beyond the counting of likes that can be traced and analyzed. In order understand social

media as a political force, both things must be unscrewed and examined carefully.

Conclusion

The following challenge has been identified for ANT-inspired analyses of social media as a political force: The ways in which such media are already explicitly networked in their operations can stand in the way of understanding them with an approach that sees the world in terms of networks. I showed this for the case of seven Facebook pages that were created to put pressure on the introduction of road pricing in Denmark. Inspired by the classic ANT call to unscrew political macro actors, I showed how Facebook was used to translate many users into a 'social media actor'. At the same time, however, I noticed that this was critiqued not as a hard-won achievement, but as an insufficient representation of the civil society in Denmark, or as a deficient version of public debate. Part of the explanation, I proposed, is that the explicitly networked character of social media such as Facebook is attractive not just to ANT perspectives but also to liberal ideals about a freely-organizing civic counterforce to the state. Here, the analysis of the political significance of social media is modeled on previous analyses of the role of the media as a 'fourth estate' in liberal democracies. I suggest that this cannot be ignored by ANT analysts since highlighting the net-work done with social media can easily come to be co-opted by liberal narratives that clean up the world in public or private. As such, ANT needs to be able to unscrew both the translation of many into one with social media *and* the political philosophies that are currently shaping social media participation.

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Notes

1 Translated to English from the original Danish by the author.

2 "All acts of engagement" include not only posts and comments, but also likes and shares of posts and comments.