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No (Big) Data, no fiction? Thinking surveillance with/against Netflix

Rocco Bellanova and Gloria González Fuster¹

Abstract

Surveillance Studies often look at cultural products as pedagogical or heuristic devices, as if they were windows into the popular representation of surveillance practices. However, artworks may also be the (by-)products of consumers' surveillance. Online platforms like Netflix harvest vast amounts of data about clients' behaviour, so to predict their interests and produce more successful, profitable creations. In this chapter, we discuss how to think about surveillance *with* and *against* Netflix, focusing on the tensions between databases and narratives, and between politics and data-driven fiction. We explore how surveillance practices are both presented and performed when Big Data gleaned from viewers is used to tailor-script a series questioning mass surveillance, such as *House of Cards*. We argue that surveillance then displays itself as an embodied and transformative experience. While viewers can figure its inner workings in a more concrete manner, they are, at the same time, turned into data-breeding publics.

The *trouble de l'archive* stems from a *mal d'archive*. We are *en mal d'archive*: in need of archives. Listening to the French idiom, and in it the attribute *en mal de*, to be *en mal d'archive* can mean something else than to suffer from a sickness, from a trouble or from what the noun *mal* might name. It is to burn with a passion. It is never to rest, interminably, from searching for the archive right where it slips away. [...] No desire, no passion, no drive, no compulsion, indeed no repetition compulsion, no “*mal-de*” can arise for a person who is not already, in one way or another, *en mal d'archive*. (Derrida 1996: 91)

Introduction

It all starts with binge-watching TV series on Netflix. In particular, it all began watching the fourth season of *House of Cards* in March 2016, and thinking something like, ‘Wow! I can learn so much about surveillance and politics just by watching this series’. And then, it is about immediately reckoning that, ‘Well, actually, perhaps we can learn even more about politics and surveillance by watching me here, under Netflix’s constant monitoring, watching *House of Cards* and trying to think about surveillance.’ This critical, reflective movement is the trigger of this chapter, and thus also of our efforts to better understand surveillance between what is brought and performed on-stage and what is performed and done to create the stage itself.

House of Cards is a series produced by the United States (US) company Netflix, which released at once all the episodes of the first season on its online platform in February 2013 (Klarer 2014; Nussbaum 2013). The series is a ‘political drama’ in the sense that it follows the ambitions of a couple of politicians portraying multiple strategies of influence and manipulation to secure their political ambitions (Crouch 2016). To make a long story short, in the fourth season of the series, released in March 2016, the TV show brings to the forefront of its narrative several techniques concerning the massive gathering and processing of data about individuals. By focusing on mass-surveillance, *House of Cards* became a sort of ‘Big Data drama’ too.

Netflix is an ‘international Internet video streaming subscription service’ (Amatriain and Basilico 2015: 390). Increasingly, it also produces its own original content, that is, series, movies and documentaries that are directly funded by the company, or whose rights have been acquired to allow for new creations (Napoli 2014). Its interest in marketing surveillance-related content was also confirmed in 2015 with the commissioning of a number of episodes of the British dystopian series *Black Mirror* (Plunkett 2015).

Netflix has not only a vast archive of films and meta-data about them (Madrigal 2014), but also a continuously growing database of information about users, especially when it comes to their interaction with the platform's interface (Amatriain 2013; Amatriain and Basilico 2015). Hence, Netflix has over time acquired the means and the tools to infer its users' preferences, and to design cultural products tailored to an identified market. As such, Netflix explicitly shows that online platforms are far from mere intermediaries (on the growing role of online platforms in shaping our contemporary political economy, see Schneider's chapter in this volume). As Gillespie puts it, 'their choices about what can appear, how it is organised, how it is monetised, what can be removed and why, and what the technical architecture allows and prohibits, are all real and substantive interventions into the contours of public discourse' (2010: 359). If we are to understand digital surveillance, our attention should focus both on the organisation of the stage (i.e. how the company organises the capture of users' behavioural data) and on the content of what is staged (i.e. the kinds of narratives that are promoted through the platform).

Netflix's investment in *House of Cards* was as a matter of fact portrayed as a prime example of the way in which its programme commissioning is directly based on personal data mining (Baldwin 2012; Carr 2013; Leonard 2013; Sweney 2014). It marked indeed a decisive and clear shift from the mere streaming of content to its active production, and a production which is directly grounded on the statistical analysis of massive amounts of data (Lycett 2013: 384). Netflix, in this sense, announced that it had decided to buy the rights of this TV series, and then to produce this specific kind of political drama with a particular lead actor and a particular director because its own data showed there was a public for such a concrete combination (Carr 2013; Leonard 2013; Hallinan and Striphas 2016: 128).

While media scholars have already highlighted the role of 'data generated as a by-product of new forms of popular cultural engagement' (Beer and Burrows 2013: 49), surveillance studies have only marginally engaged with the epistemic and political implications of the affinities between the surveillance at work for cultural production, on the one hand, and the surveillance depicted in cultural products, on the other. This is certainly not a completely new theme in surveillance studies and, even more explicitly, in popular culture itself. As Kammerer notes:

It is easy to see how surveillance and cinema relate to each other. Technologically, both rely on apparatuses of (acoustic and visual) recording. Structurally, both create situations where one

side is watching and the other is being watched. It is no wonder that surveillance also plays an important thematic role in many films. (Kammerer 2012: 101)

However, in surveillance studies and social discussions, popular culture mainly operates, and it is used, as an heuristic and pedagogical device, exposing surveillance practices and rationalities by staging them through the means of fiction (cf. inter alia: Lyon 2007: 139-ff). From this perspective, dystopic and utopic works acquire quite an immediate conceptual relevance for surveillance studies (Marks 2005; Marks 2015). Some iconic images have moved from popular culture to social analysis. Probably the most evident example is the figure of the Big Brother, introduced by Orwell in his novel *1984*, which is often mobilised by social actors and commentators to discuss governmental and corporate surveillance. The focus on the plot and its speculation upon the emergence of ‘surveillance societies’ may facilitate the bringing together of a public around given issues, such as the spread of wiretapping and the outreach of governmental powers into the private lives of individuals, or the ubiquity of CCTV surveillance in public spaces.

What is generally left out of sight, is the fact that surveillance techniques, besides the very use of video and audio recording technologies, may be mobilised to create and produce cultural products. For instance, pop culture products are generally designed so to capture a vast audience, especially in the case of blockbuster movies (Odello 2013: 7-8), and the collection of information about their possible reception may influence their very production. However, film-makers or producers rarely push the surveillance aspects of the ‘making of’ to the forefront of the public presentation. And, when the surveillance aspects of their ‘making of’ is brought to the stage, as it is the case of reality shows where footage is explicitly based on a seemingly continuous CCTV surveillance, the main theme is rarely surveillance as such. Now, as the case of Netflix illustrates, the surveillance-like rationale of data-mining is openly embraced by the producer and distributor (Amatriain and Basilico 2015). The company processes the data collected (about the movies and about the users) so as to produce and suggest cultural artefacts that may please manifold diverse users’ profiles rather than address a one-fits-all wide audience. These practices are presented in terms of ‘personalisation’ of a service and a product rather than in terms of users’ surveillance (Amatriain 2013: 1).

In the Netflix-watching setting described above, we find ourselves in front of, and embedded in, several forms of surveillance: those at play in the plot of *House of Cards*, and those at play

in the making of *House of Cards*. When we watch the surveillance practices depicted by the storyline, we may understand better how we are tracked by, and trapped in, multiple public and private high-tech surveillance systems. But when we realise how Netflix actually works, we may come to finally visualise algorithmic surveillance as an ‘embodied’ practice, a perception overall too rare in many other social settings. Every move our fingers make on the platform is a trace for an archive about users’ behaviours, and these data, once properly mined, will ‘feed back’ into what we (and others) will be suggested to watch.

On the one side we are thus facing a narrative that points to the crucial role of databases and algorithms in the fabric of politics. On the other side, we realise we are feeding the databases (and thus the algorithms) that ultimately contribute to the making of a narrative that, in the case of *House of Cards*, speaks to us about the role of databases and algorithms in the fabric of politics. In both cases, what is at play is the ambition to collect and process Big Data. This chapter is a tentative exploration of Big Data surveillance as a ‘*mal d’archive*’ (Derrida 1996: 91). We aim to pinpoint this drive to translate the world into a seemingly consistent, yet never complete, archive where data will be ultimately able to shape the coming into being of events (Rouvroy 2013). Our journey attempts to chart the main practices at work on and beyond the stage, so as to understand whether we can ‘rescue’ a narrative or an image that may help us to think about surveillance without dragging ourselves into a *mal d’archive*, where the database drive erodes and erases any possible imaging of surveillance.

The chapter is divided into three main parts. In the first we identify and discuss key conceptual resources for thinking (Big) Data, surveillance and the database-narrative tensions at work in digital media. Next we delve deeper into the plot of season fourth of *House of Cards*, offering an analytical description of the main Big Data techniques presented there and their political rationales. Finally, we move our analysis to the functioning of Netflix as a platform, discussing its Big Data features and its own staging of the same. In the concluding section, we summarise the main insights of our exploration.

Conceptual resources for thinking Big Data surveillance and the database-narrative tension

By focusing on algorithmic surveillance in a Netflix series and through the online entertainment platform itself, this work finds itself at the cross-roads of critical media studies and surveillance studies. Both fields are so conceptually rich that it might be useful to clarify

some of the basic notions used in this chapter. Hence, this section has a twofold aspiration: first, to walk through the conceptual thicket surrounding Big Data surveillance; second, to propose a conceptual approach to think surveillance through and against Netflix, in order to go beyond more traditional surveillance studies' readings of pop culture and fiction.

The first term requiring definition and clarification is 'data'. Kitchin states that:

Data are commonly understood to be the raw material produced by abstracting the world into categories, measures and other representational forms - numbers, characters, symbols, images, sounds, electromagnetic waves, bits – that constitute the building blocks from which information and knowledge are created. (Kitchin 2014: 1)

Data are thus, despite the term's Latin etymological roots, not a given. They are something that must be produced, out of a gesture of 'capture' – Kitchin notes that we should rather speak of 'capta' (Kitchin 2014: 2) . For this very reason, they are not as 'raw' as one might think (Gitelman and Jackson 2013: 2), or as Kitchin's above definition paradoxically hints at, when he refers to a 'raw material' that is 'produced' (2014: 1). Data are generated and manufactured in predetermined formats ('by abstracting the world into... forms', *ibid.*), and thus may become recalcitrant to other forms and formats, or modes of processing initially not foreseen. They might even become silent, or simply decay and disappear if their material support is no more readable or computable for technical or physical reasons (Borgman 2015). In sum, data can only be assembled as a set by pre-existing representations, and might require an often invisible labour of maintenance, adjustment and elaboration informed by such representations if they are to contribute to any form of knowledge generation and action.

Data are not merely extracted from passive individuals. In many instances, data are produced in settings that facilitate their generation through transactions seldomly based on the full understanding of what is happening. Interactive media services, for example online platforms such as Netflix, can thus collect data generated with the help of individuals who are to be *datafied*, i.e. transformed into 'a quantified format [that] can be tabulated and analysed' (Mayer-Schönberger and Cukier 2013: 78). Participation to datafication practices is not without echoes of the conception of online users as *prosumers*, i.e. the consumers that contribute to the production of a product that they are supposed to consume (Ritzer and Jurgenson 2010). When it comes to online or digital interactions, media scholars note that '[t]he information produced by these acts of participatory consumption clearly generate a form of transactional data that is

available for companies to harvest and data mine' (Beer and Burrows 2010: 9). Users are not inactive, even if most of their actions ultimately feed the *datafication* actively pursued by the online services, and does so in the terms of these services.

In order to account for the 'fragility' and 'power' of data (Borgman 2015: 4), as well as their relational nature, we propose to think of digital data as '*translations* of people, things, behaviours and relations, into information that can be stored, computed and visualised by computers' (Bellanova 2017: 331, emphasis added). Translation is a process that 'gives new life' (Barry 2013: 415), but also one that requires extensive work to be carried out. While '[t]ranslation is a significant medium of subject re-formation and political change' (Apter 2006: 6), not everybody has the same means to perform and impact these transformations.

Data, and especially 'personal data' understood as data referring to identifiable persons, lie at the very core of modern practices of surveillance. In this context, Lyon proposed the following working definition of surveillance:

[Surveillance is] the focused, systematic and routine attention to personal details for purposes of influence, management, protection or direction. Surveillance directs its attention in the end to individuals (even though aggregate data, such as those available in the public domain, may be used to build up a background picture). [...] Beyond this, surveillance is routine; it occurs as a "normal" part of everyday life in all societies that depend on bureaucratic administration and some kinds of information technology. (Lyon 2007: 14)

As Lyon (2007: 14) notes, 'personal details', 'aggregated data' or, more in general, what is produced by nearly ubiquitous 'information technolog[ies]' facilitate the governing of people (and things). From the translation perspective sketched earlier, we can say that data sit between the 'real' and its possible quantification and calculability, as well as between the production of diverse forms of knowledge and the governing and shaping of the 'real' at stake (cf. Desrosières 2011; Rouvroy 2013).

In the last few years, the term Big Data has become part of (almost) everyday parlance, dubbed in the title of a popular book as the "revolution that will transform how we live, work, and think" (Mayer-Schönberger and Cukier 2013). It has also given rise to a growing number of academic debates, diffused well beyond the realm of computer sciences. As a matter of fact, probably all fields of social sciences and humanities have by now engaged in at least some

discussion about the role and possible effects of Big Data in their discipline, be it (critical) security studies, (Amoore and Piotukh 2015; Aradau and Blanke 2015), criminology (Chan and Bennett Moses 2016), information studies (Borgman 2015), media studies (boyd and Crawford 2012) or geography (Kitchin 2013). An academic, reflexive debate is particularly important in the areas for which Big Data is potentially both a research object and a research method, such as ‘digital sociology’ (Lupton 2015; Orton-Johnson and Prior 2013).

The field of surveillance studies is not an exception. So far, it seems to be mostly leaning towards an engagement with Big Data in terms of research object, and only to a limited extent as a potential conceptual or methodological revolution (Andrejevic and Gates 2014; Degli Esposti 2014; Lyon 2014). In the introduction to a dedicated special issue of *Surveillance & Society*, Andrejevic and Gates note that ‘the notion of “big data” refers to both the unprecedented size of contemporary databases and the emerging techniques for making sense of them’ (2014: 186). They also point to another feature of Big Data: it tends in fact to push data out of the original linear translation process where they were generated, facilitating their processing in response to a given query (in view of enacting a purpose defined (and limited) in advance). In their words, ‘[t]o refer to big data is [...] also to consider the new uses to which that data is put - the novel forms of “actionable intelligence” that emerge from the analysis of ever-expanding data sets’ (Andrejevic and Gates 2014: 186).

Albeit only implicit in their reflection, this way of thinking about Big Data connects this specific form of data-led governance with the recent history of the statistical techniques and algorithms whose ambition is to crunch whatever digits are available (Desrosières 2011; Rouvroy and Berns 2013). It also highlights the frictions between the unbounded computational ambition of ‘machine learning’ and the premise about the *material* limitations of data described above. Despite the eagerness of Big Data machines and those devising and operating them, data are generally generated in pre-determined forms, and thus they often remain in need of re-engineering before further processing. Hence, Big Data sounds rather as a kind of magic wand through which data shall be liberated from the constraints that made them what they were, and confined them to pre-established purposes. Big Data is, from this perspective, the force of data without its inhibitions.

But, how to define Big Data more precisely? Drawing from several works, Kitchin has offered one of the most exhaustive definitions (Kitchin 2013). It would be, *inter alia*, ‘huge in volume,

consisting of terabytes or petabytes of data’ and ‘exhaustive in scope, striving to capture entire populations or systems’, as well as ‘relational in nature, containing common fields that enable the conjoining of different data sets’ (Kitchin 2013: 262). Yet, and this is particularly relevant for the purposes of this chapter, boyd and Crawford emphasise that Big Data is not only characterised by its technical features, but also represents ‘a cultural, technological, and scholarly phenomenon’ (boyd and Crawford 2012: 663). Indeed, Big Data relies on its own ‘mythology’, described as ‘the widespread belief that large data sets offer a higher form of intelligence and knowledge that can generate insights that were previously impossible, with the aura of truth, objectivity, and accuracy’ (boyd and Crawford 2012: 663). In our view, this mythology is further reinforced by the difficulty to fully grasp and visualise Big Data beyond the tropes of a supernatural and ineffable power.

However, this mythical image of Big Data can be conceptually approached in light of what used to be the traditional container (and multiplier) of data, that is, the database. While social sciences seem increasingly fascinated with the role of algorithms (Amoore and Raley 2017; Cardon 2015; Pasquale 2015; Ziewitz 2016), these cannot operate without appropriate data structures and databases (Gillespie 2014). As Manovic notes, ‘In computer programming, data structures and algorithms need each other; they are equally important for a program to work’ (2002: 226). However – still following the reasoning proposed by Manovic (2002) – once databases are brought to the fore, we should also consider whether databases and narratives are compatible. In fact, Manovich argues that there is a crucial tension between the database and the notion of narrative:

As a cultural form, the database represents the world as a list of items, and it refuses to order this list. In contrast, a narrative creates a cause-and-effect trajectory of seemingly unordered items (events). Therefore, database and narrative are natural enemies. Competing for the same territory of human culture, each claims an exclusive right to make meaning out of the world. (Manovich 2002: 225)

In other terms, the rationale of the database leans towards the widening of its collection outreach and the continuous effort to make the world indexical, akin to the mechanisms set in motion by the older technology of knowing and governing that is the list (Eco 2009; de Goede et al. 2016). It is the algorithm that is supposed to counter-balance and steer this *mal d’archive*. It offers the means to exploit the possibility of translation provided by the data in the database, and it keeps alive the feasibility of prospective readings. As such, algorithms become similar

to narratives, that are supposed to bring forward, and thus sometimes expose to critique, a given order (Hayles 2012). Yet, according to Manovic, the problem triggered by the diffusion of digital devices and digitalisation in general, is that everything becomes a database, at least ‘on the level of material organization’ (2002: 228), and thus narratives function only insofar they can operate as algorithms.

Understanding the interactions between narratives and the digital requires taking seriously how technologies of media production and consumption have always affected the design and dissemination of consumed content. Before algorithms, there existed already other technologies of digital/material organisation. One can think, for instance, of the physical limitations inscribed into DVDs, artificially limiting in which devices they can be used, and enabling what Guins described as morality management by DVD players (2009: 19), or of the implications of the MP3’s format for music (Sterne 2012). Whole cultural practices and genres, in fact, must be contextualised in the technologies that helped them co-create them. Popular music, in this sense, can be seen as product of the radio and the parallel emergence of audience surveys, which by the development of refined demographics impacted the way in which radio content was imagined and produced (see notably Volcler 2017).

These considerations remind us that cultural products, including fictions, never ‘purely’ emanate from an unconnected, romantically inspired author, or even a series of interconnected inspired creators. Cultural products are co-determined, to some extent, by inferences and presumptions about the publics’ preferences, increasingly on the basis of their monitoring, study and surveillance. Modern data-driven cultural productions might thus be seen not as a disruption, but as a continuation of previous practices. What remains to be done, in any case, is to inquire into how nowadays (the mythical powers of) Big Data might impact the construction of narratives that animate our societies, and thus indirectly delineate any critical thinking of society through such narratives. Navigating through all these insights, we aim to connect them to the exploration of Big Data through the lens of the constitution of data, taking seriously that data is not a given, but rather a site of translation, and thus possibly also of contestation.

Thinking surveillance through *House of Cards*

The fourth season of the Netflix series *House of Cards* was released worldwide on 4 March 2016. This season of the show can help us better understand the rise of a new mode of

governing, where vast amounts of personal and behavioural data are becoming as important as more traditional ‘cards’ for playing politics. At the end of the third season, viewers already knew what was going to be on the menu in the fourth season. Claire Underwood – the first lady – had left both the White House and her husband, thus altering old power relations. Frank Underwood – then acting president of the US – was fighting to win the primaries for the Democratic Party presidential nomination, while his grasp on present and future events weakened. In sum, we already expected *House of Cards* to bring us into a fictional world which largely resembles and echoes the one we see on the evening news (that is, when we are not watching Netflix).

The explicit connection between the fictional world of *House of Cards* and the ‘real’ world of politics as we knew it is secured by reference to quite traditional themes and practices: primary elections, decisions over the appointment of new justices or charges, diplomacy, a never-ending Middle-East crisis, or the deliberation over new legislation. More particularly, in this fourth season our attention is brought to topics such as the relations between the US and Russia, federal efforts to increase gun control, the beginning of the presidential primary elections, the struggle to secure campaign funding, etc. Actually, the series shows us a very familiar setting, and then provides us with a privileged access to what happens behind the façade, so that the fiction seems to cast a light on what happens in the shadows of (world) politics. Sometimes the narrative brings us literally behind the screen, as when Frank – the main character – looks directly into our eyes and speaks to us – the viewers – explaining what is really going on, how the machinery of power works and how it has to be worked by those interested in power (Klarer 2014). And he shows his mastery of the game by mustering allies and playing his cards well time and time again, against all odds and antagonists.

Much has been said in the press about the vision of politics that *House of Cards* brings forward and contributes to popularising (for example, Crouch 2016). And, given the increasing attention towards popular culture in social sciences (among others: Kiersey and Neumann 2013; Potter and Marshall 2008; Marks 2015; Regazzoni 2014), we can expect to read more about the politics represented in *House of Cards* and other Netflix-produced TV shows in the near future. In this chapter, we mostly focus on a specific (dis-)continuity brought about by the fourth season: the staging of Big Data surveillance techniques next to more traditional political practices. This is probably only a slight modification of the usual underlying rationale in *House of Cards*. In fact, the choice of introducing domestic mass-surveillance of telecommunications

among the key themes of *House of Cards* is far from surprising, especially since the use of this and other forms of data-driven surveillance have become public issues following the Snowden revelations. More important, these novelties in the series' plot coincide with the progressive realisation by the media and society in general of the increasing significance of data-driven analytics for the allocation of political power worldwide. These practices have been notably embodied by the widely mediatised data-mining firm Cambridge Analytica. This US company specialises in both 'audience behaviour' and influencing electoral processes, and its slogan is 'Data drives all that we do' (Cambridge Analytica 2017). The use of company's services has notably been connected to the election of US President Donald Trump and United Kingdom's vote to leave the European Union (Doward and Gibbs 2017).

Apparently, *House of Cards* is once again echoing and leveraging on themes that are widely discussed in real world debates. From this perspective, giving prominence to these issues highlights how high-tech surveillance and security practices have become the 'new normal' of world and domestic politics (Čas et al. 2017: 1). Nonetheless, we believe that the staging of Big Data surveillance in a popular series like *House of Cards* deserves to be framed as showing the potential of this kind of popular culture products to make researchers and social critics think more thoroughly about world-views on politics and power, as well as about the relationship between politics and power and data-driven fiction.

What matters most to the scope of this chapter is that the show gives a subtle but important twist to the topic of data surveillance. On the one side, we see the US Acting President pushing for extending further domestic surveillance and, on the other, we find his main political opponent deliberately using data generated by people's online searches. In pure *House of Cards*' style, the President's team tries to win the data-race against the other candidate by further processing citizens' data syphoned by counter-terrorist agencies. From this (somewhat tortuous) perspective, the question of domestic mass-surveillance is introduced in a slightly different way than what we are now accustomed. Boosting counter-terrorism surveillance is not presented only as a perverse solution to hijack the attention of the electorate in crucial moments, or merely a problem of civil liberties and of ambiguous public/private partnerships and tensions. It is (re)presented, first and foremost, in relation to the emergence of a new mode of knowledge generation, and thus in relation to the need to 'sense' and better affect the electorate.

The discovery of dirty secrets, of political plots or of the whereabouts of a potentially dangerous witness are no longer the central focus of the plot, contrary to the previous seasons of the series. What is now at stake is the capacity to detect and register how the mass of potential voters reacts ‘spontaneously’. Said otherwise, the ambition of both rival candidates is to know which keywords US citizens type in an online search engine and what political discourse or action may thus resonate with their everyday digital life and thus influence their electoral behaviour. This kind of mass-surveillance is presented as definitely important for politics, be it in the struggles among different actors, their everyday political actions, or the attempts to govern people. This new form of knowledge generation is different from the more classical forms of acquiring information about competing actors. It works less through the surveillance of each individual than through the analysis of aggregated data and the identification of manifold profiles. And it relies on, and promises, a double adjustment: that of politicians in response to emerging trends of the electorate, and that of voting behaviour in response to stimuli coming from political speeches and actions.

This seems to be a brave new world even for Frank Underwood, and it may require a major readjustment of his ‘arts’ of governing. The show suggests to us that polls, focus groups, scheming and blackmail are no longer enough to guarantee the success of a speech act, at least when performed in public. The analysis of vast amounts of (meta-)data seems now to provide a much more solid ground to perform politics. Hence, Underwood’s speeches now have to include specific words if the goal is to appeal to and mobilise previously unknown audiences. His own performance is tailored on and for ‘[t]he production of calculated publics’, where ‘the algorithmic presentation of publics back to themselves shape a public’s sense of itself’ (Gillespie 2014: 168, italics in original). Still, the need for the Underwood couple to adjust speeches and actions also shows how this ‘production of calculated publics’ influences the behaviour of ‘who is best positioned to benefit from that knowledge’ (Gillespie 2014: 168). In the show, this is presented as a subtle alteration of the routine practice of politics. It is actually the Republican Party candidate that has first secured his own data sources and learnt to work this machinery with the support of a major corporation whose core business is an online search engine. And it is Claire Underwood, now back into the White House and seemingly supporting her husband, who chiefly integrates data analytics in support of her political speeches, thus both adopting and adapting to this new art of governing by literally rewording her communication strategy.

Several researchers have already pointed to the crucial political role played by data collection and data analytics, as well as their somewhat mythical functioning (Ziewitz 2016). Bennett (2015) has notably worked on the use of data-driven technologies in electoral campaigns. Some scholars invite us to better understand the rationales underlying Big Data – and the ‘dreams’ of algorithms, as Cardon (2015) has suggested in a beautiful book – if we are to understand the rationales at play in ‘algorithmic governmentality’ (Rouvroy 2013; Rouvroy and Berns 2013). But the importance of a show such as *House of Cards* is that it attempts to visualise both the shift towards a new form of knowledge generation and to question its limits and its everyday integration into current political practices, and does so while being itself a data-driven product supported and distributed by a company grounded on pervasive data collection. Albeit powerful, databases and algorithms are here nested in fiction, which remains a largely ‘traditional’ narrative, that bring them to the stage in a more mundane, and less mythical, fashion.

So far, the key to the success of the main characters (and by extension of all those that seem able to play politics) is, indeed, *performance*, a term that we have been using often in this chapter. Here it should be understood in its most theatrical sense. In many episodes, *House of Cards* shows us how the Underwood couple overcomes an obstacle or ‘turns the table’. It often does so by juxtaposing in the same sequence both the rehearsal and the enactment of speeches and political interactions. The Underwood couple continuously ponders how to play their cards. However, faced with the challenge of governing the mass of potential voters, and not only governing the ‘House’, in the fourth season they discover that they need to learn how to play data (analytics) too. *Per se*, this challenge should be no surprise to *House of Cards* fans. Unforeseen consequences or obstacles are introduced via the overall narrative of the show as tests to be passed. They may cause trouble or open new opportunities – but ultimately power is represented as the ability of succeeding at these tests and of capitalising upon this success. When it comes to data analytics, one solution to pass the test is to adapt the text of public speeches so as to include terms that correlate with desired voting postures. While initially successful, this solution quickly shows its limits: ‘producing’ a public through numbers alone is not enough. This is where *House of Cards* offers a counterpoint to a mythical rendering of Big Data. As another character, a data scientist, recognises: ‘People didn’t know they wanted jazz until they heard it for the first time. I can get them to like the music – I can’t compose it. Give me something I can work with’ (cited also in: Brems 2017). In other words, one needs more than numbers: one needs to ‘spell’ new fictions not only to make sense of the data already

collected and organized in the database, but also to provoke a reaction among people so that they can co-produce more data to be collected. The question that *House of Cards* invites us to posit is thus how Big Data practices, with all their potential and their limits too, are included in a wider palette of arts of governing. In particular, the series brings to the stage the tension between the database and the narrative, and it does so in a narrative fashion. It pinpoints the need to supplement algorithms with fictions if the purpose is steering people's behaviour.

Thinking surveillance 'against' Netflix

To watch Netflix in search of new insights about surveillance requires not only watching what Netflix wants us to see, but also how that is determined, and organised. It demands we understand how (Big) Data dictates its content, and thus the fictional spaces where its publics might – potentially – think about surveillance.

Originally, Netflix was a mail order-based disc rental service, specialised in the renting of DVDs and Blu-rays through a dedicated website. Its operating model was based on requiring subscribers to create and maintain a queue of media content they wished to rent. They rented a disc with a movie, and after they had mailed it back to Netflix, the company sent the next available disc as listed in their subscribers' 'wish list' queue (Lycett 2013: 383). The management of such subscribers' queues quickly became a crucial business goal, leading to a strong interest in all the metadata around them, and, eventually, the introduction of movie recommendations to users (Lycett 2013: 383).

In 2006, Netflix announced a \$1-million prize for improving its movie recommendation service (Hallinan and Striphos 2016; Amatriain 2013; Amatriain and Basilico 2015). In the context of the competition, Netflix publicly released a dataset containing 100.480.507 movie ratings, created by 480.189 Netflix subscribers between December 1999 and December 2005, while declaring that all customer-identifying information had been removed from the dataset. The prize publicly embodied Netflix's commitment to a unabashed data-driven business model, in which the core of its service and the users' experience would be determined by innovative algorithms on the basis of the screening and interpretation of users' preferences and behaviour (Amatriain 2013; Amatriain and Basilico 2015). The prize, however, was also a failure in terms of reassuring about the privacy-compliance of such data-driven business model. Indeed, and despite Netflix's assurances regarding the inexistence of any customer identifying information

in the publicly shared dataset, experiments showed that cross-correlating that data with non-anonymous records from the Internet Movie Database it was possible to learn sensitive non-public information about a person's political preferences, and even their sexual orientation (Narayanan and Shmatikov 2008).

The Netflix algorithm contest was actually only a first sign of possible privacy problems triggered by the massive amount of data processed by the company, some of which can be highly sensitive. It was also only one of the many occasions in which it has publicly boasted about its pervasive data mining practices. 'Data is invaluable in making Netflix such an exceptional service for our customers', states the Netflix Open Source Software Centre website, before adding that '[b]ehind the scenes, we have a rich ecosystem of (big) data technologies facilitating our algorithms and analytics' (Netflix 2017a).

Nowadays, viewers' wishes and ratings are only a (relatively small) piece of the mass of data collected and processed by Netflix (Amatriain 2013; Amatriain and Basilico 2015). As detailed by its Privacy Statement (Netflix 2017b), the company collects three types of data: some are actively and consciously provided by users (named '[i]nformation you provide to us'), some are taken from them as they use the service (defined as '[i]nformation we collect automatically'), and some that are taken from other, third-party sources (referred to as '[i]nformation from other sources'). Information actively provided by users includes data such as name, email and postal addresses, payment method or telephone number, as well as data actively provided by them on their self-declared preferences and tastes, for instance by rating films. This fundamentally corresponds to the information that users are aware of sharing (what they know they have accepted to share), because they enter it themselves into the system – although they might not be completely aware of with whom they are actually sharing it.

Information collected from users without their 'active' involvement relates to data about their activities on the Netflix service, 'such as title selections, watch history and search queries', and their interactions with ads, as well as different types of data related to their devices and their connection, including IP addresses (Netflix 2017b). This refers to all the data that is collected while they watch content, and about how they watch it: at what time, until which second, when again (if twice or more), from which devices, and where they could be located. Amatriain and Basilico label these data 'play data', stating that 'as of 2013 we [i.e. Netflix] had around 50 million play events coming into the service every day' (Amatriain and Basilico 2015: 398).

Many users might not be fully aware of the total extent of such continuous data collection, unless, of course, they happened to read and fully understand the Netflix Privacy Statement, and could also interpret what is said between its lines (cf. also: Hallinan and Striphas 2016).

In addition to all this information, Netflix also collects data from other sources, including from both online and offline data providers. This is ‘supplemental information’ that ‘could include demographic data, interest based data, and Internet browsing behaviour’ (Netflix 2017b), as well as, possibly, any other data deemed relevant (Amatriain 2013; Amatriain and Basilico 2015). A majority of users will never know exactly how this is happening: which data were sought for complementing the already massive and fine-grained information obtained about them concretely, and about users’ reactions in general, by the monitoring of all of their interactions with the service. Netflix Privacy Statement notes that the data collected is used *inter alia* to offer ‘personalized viewing recommendations for movies and TV shows we think will be enjoyable’, but also for, generally, ‘analyzing and understanding our audience; improving our service (including our user interface experiences), delivery optimization, content selection, and recommendation algorithms’ (Netflix 2017b). In short, Netflix seems to operate in a growing condition of *mal d’archive*, where the drive to expand the database and introduce indexes never rests.

All these data collection practices, as well as the multiplicity of purposes they serve, are not as such a phenomenon specific to Netflix. Napoli notes that ‘[t]wo of the primary functions that algorithms are performing in the media production realm at this point are: (a) serving as a demand predictor and (b) serving as a content creator’ (2014: 348). While Netflix is probably one of the clearest examples of a company already engaged in both practices, other online providers of popular culture follow similar paths. The digital music service Spotify, for instance, also relies on a combination of data provided by users, data obtained through the monitoring of their behaviour, and data gathered through other sources – most notably Facebook (Spotify 2017). Spotify, as a matter of fact, claims for instance that for the sake of providing the best possible music recommendations to its users it is also necessary to systematically monitor whether they are running, as running listeners would have different musical expectations than listeners who are walking, or just sitting (Spotify 2017).

As Beer and Burrows (2013: 67) note, this data pressure on users is different from traditional use of market research to design cultural products. They argue that while ‘[w]e might say that

there has always been a performativity of circulation of data in popular culture[,] this circulation has accelerated, the data has hyper-multiplied and the connections and linkages forged have been beyond any previous comprehension' (Beer and Burrows 2013: 67). In our view, the 'circulation of data' (Beer and Burrows 2013: 67) has not only exploded in quantitative terms, but also reached a qualitative shift, precisely in asserting and strengthening its circularity. Such circularity affects content design – users are surveilled to know what they might want, so it can be produced – and the purposes of such tailoring: users are to be given what they want, so they might continue to be under surveillance, to make sure what they want can be produced. As documented by *House of Cards*, the purpose of all the data collection practices in place is not limited to suggesting to users certain choices, but to enable and modulate the possible choices. As noted by Hallinan and Striphas, the company ran 'its algorithms to decompose the property to determine whether an audience might exist for some combination of "David Fincher," his "style," the collection of genres across which he has worked, "Kevin Spacey," the specific genre of political thriller, and so forth' (Hallinan and Striphas 2016: 128). Thus, these permissible choices might include the very definition of future available content, determining casting decisions, or the evolution of plots.

Moreover, such an algorithmic mobilisation of diverse datasets (movies, users' behaviour informations, etc) shows that 'Netflix [is] moving away from an undifferentiated mass toward an aggregation for highly differentiated micro-audiences' (Hallinan and Striphas 2016: 128). The audiences that Netflix cherishes and monitors might be micro or macro, that is not the decisive factor. What is key is that they are audiences fully disciplined into a constant (conscious and unconscious) participation to the production of data about them, thereby silently acquiescing to the mythical image of (Big) Data as a magic enabler of better fictions – about the world and about themselves. Their cooperation for translating their behaviour into what they want (and thus must) see is part of the very plot which is attracting them.

Concluding remarks

House of Cards is not just an artefact of popular culture in which data surveillance is represented, but also an exemplary instance of how the large-scale collection and processing of data about users' behaviour can be determinant to produce contemporary popular culture. This chapter has attempted to show how by watching *House of Cards*, while at the same time looking into how Netflix watches us watching it, is possible to discover even more tropes of contemporary surveillance. The potential initially perceived in the fourth season of *House of*

Cards concerns a staging of digital surveillance that goes beyond the visual tropes of graphs showing the relations between data-points (Cardon 2012; Galloway 2011) or those resonating with an ‘algorithmic drama’ (Ziewitz 2016). It offers a way of imaging Big Data surveillance that somewhat bypasses the ‘mythology’ of Big Data (boyd and Crawford 2012). Its images and storyline make visible something more relatable and diverse than pseudoscientific maps of digital connections and relations.

A key notion that emerges in this co-constitutive and bidirectional watching is the notion of created and creating publics (Gillespie 2014). Streaming services pursue and create publics, and publics facilitate the creation of the fiction that shall be streamed, for a better understanding of its publics. And all this streaming and being a *streamed-to-public* ultimately come into being through something called data, which is what holds everything together – or as separate as necessary. They are data-driven, data-drawn publics that are mobilised for, and disciplined into, sustained personal data production, that is, as data-breeding publics. In this sense, the drama of current business strategies would not be that there is not enough data to generate fiction, but rather that there is not enough fiction to generate data, and thus to partially satisfy this *mal d’archive*.

In this spiral of public(s)-data creation, some might want to attribute to the new publics a promise of self-consciousness, if not agency. As exemplified by Gillespie (2014: 168), algorithms could be portrayed as contributing to ‘produce’ new kinds of ‘calculated publics’ that are somehow specular to networks of users, even if very different in their socio-technical and political engineering. The question remains, however, to what extent the algorithmic (re-)presentation of publics echoes something more, or something different from (and potentially in contestation of) the data-generating publics. Thinking surveillance with and against Netflix, through and besides its fiction, obliges us to interrogate the role allocated to individuals in the shared production of data. Publics can be viewed not just as consumers of content, but mainly as co-producers of data, which, in the end, is what shall be produced, unless what is ultimately to be produced is a public that is perhaps not able to see itself as such. We might think of Netflix as surveillance, to the extent that surveillance is a process of data generation, but on the condition that we understand that as a complex process occurring with and via its users/viewers/watchers.

Watchers are, indeed, a classical conceptual category of surveillance studies, generally understood as those who perform surveillance, those who surveil (as in watch over) the others who are being surveilled (the watched). This dyad watcher/watched has been put into question by the analysis of other practices of surveillance, where the somewhat vertical visual diagrams of watcher/watched is put into discussion by ‘lateral’ surveillance (as the watched are also watching others being watched, thus becoming co-watchers) or by the uptake of the surveillance performance (e.g. cases of self-exposure) (cf. González Fuster et al. 2015). In the present case, the picture is complicated by the fact that individuals wishing to look into a depiction of surveillance are taken over as members of a public that might be unable to perceive itself as such.

In this blurring of watching vectors, data play a critical role as mediators: they are what is extracted from individuals before these are transformed into new, invisible, data-built entities. Data thus here translate people into publics, and publics potentially into fictions – or, in the case of real life data-driven electoral processes, political realities. Individuals might be pictured as trapped into data bubbles (on this metaphor, see Schneider’s chapter in this volume), but also as being dissolved into the very soap that makes up the bubbles built around around them and others.

These reflections are crucial to engage in a discussion about the possible role of data-driven and data-breeding publics as potentially ‘emancipated spectators’ (Rancière 2009) – that is, their political relation to the databases and the narratives with which they are confronted and thrown into. If we are to accept the link between political emancipation and fiction (and thus, by extension, the narrative), or, in Rancière’s words, the idea that ‘[the political] begins with fiction’ (2014: 50), then we definitely need new forms of collective and creative imaging to reappropriate the contemporary database drive for emancipatory purposes. We need to keep thinking (while, or in spite of, or instead of) watching fiction on the fictional nature of our translations into data, and our possible emancipation through it.

References

Amatriain, X. (2013). Big & Personal: data and models behind Netflix recommendations. New York, NY: ACM - BigMine '13.

- Amatriain, X. and Basilico, J. (2015). Recommender Systems in Industry: A Netflix Case Study. In: Ricci, F., Rokach, L. & Shapira, B. (eds.) *Recommender Systems Handbook. 2nd edition*. New York, NY: Springer.
- Amoore, L. and Piotukh, V. (2015). Life beyond big data: governing with little analytics. *Economy and Society*, 44, 3, 341-366.
- Amoore, L. and Raley, R. (2017). Securing with algorithms: Knowledge, decision, sovereignty. *Security Dialogue*, 48, 1, 3-10.
- Andrejevic, M. and Gates, K. (2014). Big Data Surveillance: Introduction. *Surveillance & Society*, 12, 2, 185-196.
- Apter, E.R. (2012). Netflix gambles on Big Data to become the HBO of streaming. *Wired*, 29.11.2012.
- Barry, A. (2013). The Translation Zone: Between Actor-Network Theory and International Relations. *Millennium - Journal of International Studies*, 41, 3, 413-429.
- Beer, D. and Burrows, R. (2010). Consumption, Prosumption and Participatory Web Cultures. An introduction. *Journal of Consumer Culture*, 10, 1, 3-12.
- Beer, D. and Burrows, R. (2013). Popular Culture, Digital Archives and the New Social Life of Data. *Theory, Culture & Society*, 30, 4, 47-71.
- Bellanova, R. (2017). Digital, politics, and algorithms: Governing digital data through the lens of data protection. *European Journal of Social Theory*, 20, 3, 329-347.
- Bennett, C.J. (2015). Trends in Voter Surveillance in Western Societies: Privacy Intrusions and Democratic Implications. *Surveillance & Society*, 13, 3/4, 370-384.
- Borgman, C.L. (2015). *Big Data, Little Data, No Data. Scholarship in the Networked World*, Cambridge, MA, The MIT Press.
- boyd, D. and Crawford, K. (2012). Critical Questions for Big Data. Provocations for a cultural, technological, and scholarly phenomenon. *Information, Communication & Society*, 15, 5, 662-679.
- Brems, M. (2017). *What House of Cards Got Right (and Wrong) About Data Science* [Online]. Medium. Available: <https://medium.com/towards-data-science/what-house-of-cards-got-right-and-wrong-about-data-science-41218f69c7f5> [Accessed 06.10.2017].
- Cambridge Analytica. (2017). *Data Drives All We Do* [Online]. New York, NY: Cambridge Analytica. Available: <https://cambridgeanalytica.org/> [Accessed 06.10.2017].
- Cardon, D. (2012). Regarder les données. *Multitudes*, 2, 49, 138-142.
- Cardon, D. (2015). *À quoi rêvent les algorithmes*, Paris, Seuil.

- Carr, D. (2013). *Giving Viewers What They Want* [Online]. New York, NY: New York Times. Available: <http://www.nytimes.com/2013/02/25/business/media/for-house-of-cards-using-big-data-to-guarantee-its-popularity.html> [Accessed 05.10.2017].
- Čas, J., Bellanova, R., Burgess, J.P., Friedewald, M. and Peissl, W. (2017). Introduction. Surveillance, privacy and security. In: Friedewald, M., Burgess, J.P., Čas, J., Bellanova, R. & Peissl, W. (eds.) *Surveillance, Privacy and Security. Citizens' Perspectives*. London: Routledge.
- Chan, J. and Bennett Moses, L. (2016). Is Big Data challenging criminology? *Theoretical Criminology*, 20, 1, 21-39.
- Crouch, I. (2016). "House of Cards" Season 4 Is Less Vulgar Than Real Politics [Online]. New York, NY: New Yorker. Available: <http://www.newyorker.com/culture/culture-desk/house-of-cards-season-4-is-less-vulgar-than-real-politics> [Accessed 05.10.2017].
- De Goede, M., Leander, A. and Sullivan, G. (2016). Introduction: The politics of the list. *Environment and Planning D: Society and Space*, 34, 1, 3-13.
- Degli Esposti, S. (2014). When big data meets dataveillance: The hidden side of analytics. *Surveillance & Society*, 12, 2, 209-225.
- Derrida, J. (1996). *Archive Fever. A Freudian Impression*, Chicago, The University of Chicago Press.
- Desrosières, A. (2011). Words and Numbers: For a Sociology of the Statistical Argument. In: Saetnan, A.R., Lomell, H.M. & Hammer, S. (eds.) *The Mutual Construction of Statistics and Society*. New York: Routledge.
- Doward, J. and Gibbs, A. (2017). *Did Cambridge Analytica influence the Brexit vote and the US election?* [Online]. London: The Guardian. Available: <https://www.theguardian.com/politics/2017/mar/04/nigel-oakes-cambridge-analytica-what-role-brexit-trump> [Accessed 06.10.2017].
- Eco, U. (2009). *The Infinity of Lists*, New York, Rizzoli.
- Galloway, A. (2011). Are Some Things Unrepresentable? *Theory, Culture & Society*, 28, 7-8, 85-102.
- Gillespie, T. (2010). The politics of 'platforms'. *New Media & Society*, 12, 3, 347-364.
- Gillespie, T. (2014). The Relevance of Algorithms. In: Gillespie, T., Boczkowski, P.J. & Foot, K.A. (eds.) *Media Technologies. Essays on Communication, Materiality, and Society*. Cambridge, MA: The MIT Press.
- Gitelman, L. and Jackson, V. (2013). Introduction. In: Gitelman, L. (ed.) *"Raw Data" Is an Oxymoron*. Cambridge, MA.: The MIT Press.

- González Fuster, G., Bellanova, R. and Gellert, R. (2015). Nurturing Ob-Scene Politics: Surveillance Practices Between In/Visibilities and Disappearances. *Surveillance & Society*, 13, 3/4, 512-527.
- Guins, R. (2009). *Edited clean version: Technology and the Culture of Control*, Minneapolis, University of Minnesota Press.
- Hallinan, B. and Striphas, T. (2016). Recommended for you: The Netflix Prize and the production of algorithmic culture. *New Media & Society*, 18, 1, 117-137.
- Hayles, K.N. (2012). *How We Think. Digital Media and Contemporary Technogenesis*, Chicago, The University of Chicago Press.
- Kammerer, D. (2012). Surveillance in literature, film and television. In: Ball, K., Haggerty, K. & Lyon, D. (eds.) *Routledge Handbook of Surveillance Studies*. Abingdon, Oxon: Routledge.
- Kiersey, N.J. and Neumann, I.B. (eds.) (2013). *Battlestar Galactica and International Relations*, London/New York: Routledge.
- Kitchin, R. (2013). Big data and human geography. *Dialogues in Human Geography*, 3, 3, 262-267.
- Kitchin, R. (2014). *The Data Revolution. Big Data, Open Data, Data Infrastructures & Their Consequences*, London, Sage.
- Klarer, M. (2014). Putting television 'aside': novel narration in House of Cards. *New Review of Film and Television Studies*, 12, 2, 203-220.
- Leonard, A. (2013). *How Netflix is turning viewers into puppets* [Online]. Salon. Available: http://www.salon.com/2013/02/01/how_netflix_is_turning_viewers_into_puppets/ [Accessed 06.10.2017].
- Lupton, D. (2015). *Digital Sociology*, London/New York, Routledge.
- Lycett, M. (2013). Datafication: Making Sense of (Big) Data in a Complex World. *European Journal of Information Systems*, 22, 4, 381–386.
- Lyon, D. (2007). *Surveillance Studies. An Overview*, Cambridge, Polity.
- Lyon, D. (2014). Surveillance, Snowden, and Big Data: Capacities, consequences, critique. *Big Data & Society*, 1, 2, 1-13.
- Madrigal, A.C. (2014). How Netflix Reverse Engineered Hollywood. *The Atlantic*, 02.01.2014.
- Manovich, L. (2002). *The Language of New Media*, Cambridge, Ma., The MIT Press.
- Marks, P. (2005). Imagining Surveillance: Utopian Visions and Surveillance Studies. *Surveillance & Society*, 3, 2/3, 222-239.

- Marks, P. (2015). *Imagining Surveillance. Eutopian and Dystopian Literature and Film*, Edinburgh, Edinburgh University Press.
- Mayer-Schönberger, V. and Cukier, K. (2013). *Big Data: A Revolution That Will Transform How We Live, Work, and Think*, Boston, Eamon Dolan.
- Napoli, P.M. (2014). Automated Media: An Institutional Theory Perspective on Algorithmic Media Production and Consumption. *Communication Theory*, 24, 3, 340-360.
- Narayanan, A. and Shmatikov, V. (2008). Robust De-anonymization of Large Datasets (How to Break Anonymity of the Netflix Prize Dataset). *arXiv*.
- Netflix. (2017a). *Netflix OSS* [Online]. Netflix. Available: <http://netflix.github.io/> [Accessed 06.10.2017].
- Netflix. (2017b). *Privacy Statement* [Online]. Amsterdam: Netflix International B.V. Available: <https://help.netflix.com/legal/privacy?locale=en&docType=privacy> [Accessed 06.10.2017].
- Nussbaum, E. (2013). *Shark Week. "House of Cards," "Scandal," and the political game* [Online]. New York, NY: New Yorker. Available: <https://www.newyorker.com/magazine/2013/02/25/shark-week> [Accessed 05.10.2017].
- Odello, L. (2013). Exploser les images, saboter l'écran. In: Odello, L. (ed.) *Blockbuster. Philosophie & cinéma*. Paris: Les Prairies ordinaires.
- Orton-Johnson, K. and Prior, N. (eds.) (2013). *Digital Sociology. Critical Perspectives*, Basingstoke: Palgrave.
- Pasquale, F. (2015). *The Black Box Society. The Secret Algorithms That Control Money and Information*, Cambridge, MA, Harvard University Press.
- Plunkett, J. (2015). *Netflix set to make new series of Charlie Brooker's dystopian drama Black Mirror* [Online]. London: The Guardian. Available: <https://www.theguardian.com/media/2015/sep/08/netflix-new-series-charlie-brooker-dystopian-drama-black-mirror> [Accessed 05.10.2017].
- Potter, T. and Marshall, C.W. (eds.) (2008). *Cylons in America. Critical Studies In Battlestar Galactica*, New York/London: continuum.
- Rancière, J. (2009). *The Emancipated Spectator*, London/New York, Verso.
- Rancière, J. (2014). *Moments Politiques. Interventions 1977-2009*, New York, Seven Stories Press.
- Regazzoni, S. (2014). La déconstruction à l'époque de la pop culture. *Rue Descartes*, 3, 82, 121-124.

- Ritzer, G. and Jurgenson, N. (2010). Production, Consumption, Prosumption: The nature of capitalism in the age of the digital 'prosumer'. *Journal of Consumer Culture*, 10, 1, 13-36.
- Rouvroy, A. (2013). The end(s) of critique. In: Hildebrandt, M. & De Vries, K. (eds.) *Privacy, Due Process and the Computational Turn*. Oxon: Routledge.
- Rouvroy, A. and Berns, T. (2013). « Gouvernamentalité algorithmique et perspectives d'émancipation » Le disparate comme condition d'individuation par la relation ? *Réseaux*, 1, 177, 163-196.
- Spotify. (2017). *Politique de confidentialité de Spotify* [Online]. Stockholm: Spotify AB. Available: <https://www.spotify.com/be-fr/legal/privacy-policy/> [Accessed 06.10.2017].
- Sterne, J. (2012). *MP3: The Meaning of a Format*, Durham, Duke University Press.
- Sweney, M. (2014). Netflix Gathers Detailed Viewer Data to guide its Search for the Next Hit. *The Guardian*, 23.02.2014.
- Volcler, J. (2017). *Contrôle : Comment s'inventa l'art de la manipulation sonore*, Paris, La Découverte.
- Ziewitz, M. (2016). Governing Algorithms. Myth, Mess, and Methods. *Science, Technology, & Human Values*, 41, 1, 3-16.

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