

Cultural interventions against Internet surveillance and data collection

A descriptive study of whether the creators of six cultural products effectively inform the social critique to change the status quo

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Abstract

This thesis aims to reveal whether the creators of six cultural products created with the incentive to inform Internet users about surveillance and data collection successfully transform their audience into active participants empowered to understand and alter commercial entities' insight into their lives. Walter Benjamin's concept of *The Author as Producer* (1970) is used as an analytical lens, as it presents the qualities a cultural producer who desires social change needs to incorporate in their work. The cultural products analyzed here, the web browser extensions *Lightbeam* and *Go Rando*, the web application *commodify.us*, the informational website *myshadow.org*, the advertising campaign *Anger Marketing at Roskilde*, and the physical artefact *Transparency Grenade*, are created as responses to commercial surveillance and data collection that is now an unquestioned part of everyday life that nevertheless affects Internet users, often unbeknownst to them.

A qualitative content analysis is conducted to understand the extent to which the creators inherit Benjamin's cultural critical claims. First, the origins of cultural products and performativity as part of social critique are outlined, including Benjamin's concept. The next section illustrates contemporary cultural critique of technology including the hacker ethic, followed by a section informed by Foucault's take on power and Deleuze's *control society* to demonstrate the corpus' relevance. Current scholarly approaches to Internet surveillance and data collection are then presented, transitioning into a corpus overview that explains the cultural products, and their creators' background and view on the issue. The methodology includes an analytical coding framework based on academic articles that implement Benjamin's concept in the current social technological context. The analysis is structured in the order Benjamin presents his concept. It is found that all analyzed creators make Internet users active participant, empowered to change their situations in the described productive relations. Further studies into the audience's reception of the analyzed cultural products would bring a more complete understanding of the creators' achievement.

Keywords: cultural performativity, Walter Benjamin, *Author as Producer*, Internet surveillance, Internet data collection, hacker ethic

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Introduction

This thesis investigates the creators of cultural products' ability to change the status quo. Specifically, it analyses whether the creators of a set of web browsers, websites, physical artworks, and marketing stunts effectively inform the social discourse on consumer profiling that is dependent on surveillance and data collection. The analysis will be conducted through the lens of Walter Benjamin's lecture *The Author as Producer* (1970), which he gave in 1934 as a critique towards intellectuals' propensity to treat their audience as passive consumers of their work. Benjamin argued that cultural performativity always needs to be thought of as situated in the contemporary social context. Speaking of literature, he meant that the author always has to acknowledge that their text stems from the process of production, no matter what technology it uses. Failing to make this connection causes the author to merely feed back into capitalism through treating their audience as passive consumers of a message that does not get questioned. Instead, the author needs to serve an organizing function and become a producer through including an instructive component in their artwork. Doing so will provide people with the necessary knowledge about the apparatus of production, empowering them to understand their place within it and demand change. Acting as a producer, the author has thus opened up a political space for the audience to partake in. Benjamin's statement does not only refer to literature, however, but can be applied to all types of cultural performative activity.

Contemporary critical media artist Nicolas Maigret makes the following statement on art that employs technology in the current social context of the 'hyper-technological condition:'

"At some point, in reading historical techno-critiques like Paul Virilio and Jaques Ellul, I realised that this field [art and technology] was a cog in a larger 'propaganda of innovation'. Somehow artists using tech in an uncritical way would implicitly serve to vulgarise and validate the tools they are staging. Consequently, there's a need to re-politicise the matter of technology at the level of society as a whole."

*Interview with Nicolas Maigret, critical media artist.
In Neural, volume 55, Autumn 2016*

He means that the infrastructures and tools that shape society need to be interrogated since citizens need to learn how to critically relate to their social

context. To do so, he advocates for art to expose the current social context on many different levels through “revealing the structure, the patterns, [and] the dynamics of, let’s say, network communications” (*Neural* 2016, 41). Echoing Maigret’s demand that art needs to critically interrogate technology, a group of cultural products exist that comment specifically on the Internet’s relations of production and the users’ place within. These products are a comment on the current social context in which people become increasingly networked, a context that stems from the World Wide Web’s development, which commercialized the Internet. This expansion spread it to a tremendous amount of users and thus rendered it an important place of capital accumulation. Specifically, corporate wealth is now gained through ubiquitous surveillance of Internet users on proprietary platforms (Foster and McChesney 2014). This fact led Crain (2016) to argue that commercial surveillance should be considered ‘commodification,’ where Internet users should be seen as *products* rather than *consumers*.

Benjamin’s theorizing about the *Author as Producer* seems very relevant in this current social context, as Internet users are often unaware that their data is being collected and are thus unaware of their status as products. This thesis will therefore apply Benjamin’s theoretical concept of the *Author as Producer* to six cultural products that claim to enlighten the general public in various ways about surveillance and commercial data collection practices. A qualitative content analysis will be conducted in an attempt to reveal to what extent the creators of these cultural products change the apparatus of production, and accordingly, to what extent they turn onlookers into active participants who become empowered to understand and do something about the extent of commercial entities’ insight into their lives.

This thesis is structured such that it first gives an account of how cultural products and cultural performativity became part of the critique against the status quo. The second section critically presents the methodology and corpus, accounting for strengths and weaknesses in both. The next section describes contemporary cultural critique of technology, followed by a section that lays out why cultural products that specifically criticize Internet surveillance and data collection are important. Subsequently there is an overview of current scholarly discussions on Internet surveillance

and control, followed by the analysis, discussion, and conclusion. The main research question is: *to what extent do the creators of the cultural products that critically address surveillance and data collection inherit the cultural critical claims formed by Benjamin?*

To what extent can cultural performativity change the status quo?

This thesis will focus solely on the discourse of critical theory to analyse whether the creators of six cultural products that supposedly take a critical stance against online consumer profiling manage to change the status quo. Here, Adorno and Horkheimer writing from the Frankfurt School perspective, as well as Walter Benjamin who was not affiliated with the Frankfurt School but shared many of its ideas in regards to cultural products, will serve as key references. I am aware that there are other ways to analyse the cultural products and their creators that I selected, as well as that there are counter arguments to make towards Benjamin and Adorno and Horkheimer,¹ but I refrain from elaborating on these here as it lies outside of the scope of this thesis. Moreover, I find the critical theory discourse overly important since it was that which, through Benjamin, Adorno and Horkheimer, first addressed media's role in society.

Adorno and Horkheimer take the position that media is made standardized as a means to maintain the status quo. Benjamin takes a similar attitude where he criticises cultural production and creative artistic works for serving the status quo, including the maintenance of the apparatus of production, through taking on an ornament shape and serve as mere entertainment. For Adorno, Horkheimer and Benjamin therefore, media and cultural product serve a political purpose in that they stabilize the status quo. Benjamin exemplifies this mechanism of cultural products' when he discusses 'new objectivity' photography in his *Author as Producer* (Benjamin 1970, 90-91). He finds that someone who takes photos of poverty could claim to be a socially critical photographer, but that they actually only produce beautiful photos of poverty, thus not changing the apparatus of production but rather stabilize it.

¹ Their positions can be criticized and balanced from other points of view such as Stuart Hall's encoding/decoding, but I choose here not to do this due to the scope of the thesis.

The origins of cultural products as social critique

Adorno, Horkheimer and the Frankfurt School were informed by Marxism in their attempt to understand cultural products' and the media's effect on citizens. Media had first gained its critical importance with the development of Critical Theory by the first generation of the Frankfurt School in 1933 (Corradetti 2017), an attempt to come to terms with the social forces of the time. The Frankfurt School was created in Frankfurt am Main in 1923 as an institute to further German Marxist studies (ibid.). Initially, its members concerned themselves with "classical Marxism and the class struggle that were at the heart of German Communist politics during the years of the Weimer Republic" (Wheatland 2009, 11). The First World War had brought debt, inflation, as well as a deterioration of the social injustices created by capitalism. It was uncertain what type of society would emerge, however socialist movements were on the rise and it seemed that a socialist revolution would inevitably happen (ibid. 14). The Weimer Republic thus saw unstable political times where a balance was struck between socialism and capitalism, but neither the left nor right wings in German politics were satisfied (ibid. 15). The Frankfurt School's members studied the contemporary social debates through a combination of philosophy and Marxist theory. Specifically, they researched the social forces that affected the consciousness of the German working class (ibid. 25-26). The members, however, diverted from classical Marxism and linked "social developments with artistic developments" (ibid. 28-29) to show how art was a "reflection of broader social forces" (ibid. 29). Inspired by sociology and Weimar modernism, they therefore studied cultural artefacts to develop a theory of art "that concentrated on its capacity to criticize contemporary reality" (Wheatland 2009, 6). Thus, "aesthetic and intellectual modernism" (Wheatland 2009, 6) became central to Critical Theory.²

² Critical Theory thus draws on the Marxist tradition of socioeconomic analysis where capitalism is understood as a social state in which the economy influences all social spheres, and market efficiency determines where the social and political power lies. Within the economy, the capitalist class controls power through owning the means of production, which they use to dominate other classes. Given that the economy holds all other spheres in its grip, it naturally has influence on cultural theory: first, a cultural product can only be understood if it is related to its societal context, that is, "the economic background of its production and the economic interests of the persons involved" (Henning 2017, 256). Economic and social developments therefore impact the changes in cultural form and content. Second, the cultural

The members of the Frankfurt School had thereby realized that art could be political and thus have a revolutionary potential. Their mode of thinking was more nuanced than that of contemporary official communist art theory, however. Eiland and Jennings (2014) argue that socialist realism, which had become the official Soviet arts policy in 1932, stipulated that art should become politicised (441). However, according to the theory, an artwork had successfully achieved revolutionary status if its content was revolutionary – the social class and interests of the creator was not something considered to affect the artworks function as revolutionary (Leslie 2000, 98). According to Leslie (2000), separating the artwork from its social context and production process (including different economic interests) was representative of the reigning discourse on revolutionary politics and aesthetics at the time (98).

Why cultural products are important to consider as part of social critique

The Frankfurt School on the contrary, saw a strong connection between a cultural artefact and its dependence on the economy (Nealon and Irr 2002, 45). They meant that artistic developments were closely intertwined with social developments. This could be seen on both sides of the political spectrum, that is, both in capitalist and fascist societies. In *The Culture Industry: Enlightenment as Mass Deception*, the two central figures to the Frankfurt School Adorno and Horkheimer critiqued the production and consumption of mass culture in the United States, which they perceived as an urgent matter due to the American entertainment industry's great rise in the 1930s and 1940s; the consumption of mass art had reached an all-time-high (Wheatland 2009, 164). The authors wrote in the United States in exile from Nazi Germany. They had fled the country since they felt the threat that the regime would crack down on their institute and destroy their intellectual material due to their contrary political beliefs (Wheatland 2009, 29-30). Simultaneously, Stalin aspired for totalitarianism in the Soviet Union, and introduced the state art policy that all art was to be political. All the while the American culture industry, the authors' "term for contemporary, bourgeois

artefact's contextualization within the capitalistic economy changes its meaning: it depicts social reality in a more or less partial or idealized way, thereby embedding an ideological message (Henning 2017, 257).

popular culture” (Wheatland 2009, 163), had established a firm grip on American society through touching the lives of all Americans. Thus, the authors saw parallels between capitalist societies and fascist regimes in terms of cultural and social developments.

Adorno and Horkheimer felt that like fascist art, American cultural products were not designed with the people’s best interest in mind so as to help or educate them. Rather, they argued that the culture industry had come to be all about escapism. Through providing the worker with easy entertainment, the cultural products served as means of intellectual suppression of the worker rather than making her reflect on her own situation: “The spectator must need no thoughts of his own: the product prescribes each reaction, not through any actual coherence—which collapses once exposed to thought—but through signals” (Horkheimer, Adorno, and Noeri 2002). Adorno and Horkheimer thus saw the culture industry as the element of capitalism that would crush revolution, not help the workers in their revolution.

According to Adorno and Horkheimer, the culture industry used several tactics to maintain the status quo and derive economic profit. First, it produced its cultural products at a few central locations (e.g. Hollywood) and distributed these to the whole American people. Second, to ensure a maximum level of profit, the cultural products were created with a sufficient diversity for everyone to find something they liked. Consumers were “divided up as statistical material into red, green, and blue areas according to income group” (Horkheimer and Adorno 2001, 62). Importantly, according to the two authors, this type of production made the cultural content’s quality superficial. The superficiality was a consequence of the style used for cultural production, because all products were created according to the same style of form and content. The style became so recognizable by the public that it always knew what to expect with the consequence that nothing was left for people’s imagination. Adorno and Horkheimer meant that this expectedness of the culture industry’s products was a stark contrast from previous art since artists had always been suspicious of style, and chose to not adhere to it (Horkheimer and Adorno 2001, 65). To them, art had previously carried an ‘effect,’ a detail that made the artwork critically comment on the social

situation, but mass culture did not³ (Horkheimer and Adorno 2001, 63). Instead, mass cultural products lacked any political depth. In combination with the fact that the cultural products were created such that people would conflate them with real life, promising to show the truth about reality and thereby making people refrain from using their imagination in real life as well (Horkheimer and Adorno 2001, 64), the culture industry ensured that the social order was maintained. Adorno and Horkheimer's argument here is in line with the Marxist argument that the cultural production of a society serves the stabilization of its power structure (Henning 2017, 256). It is an argument that is made in contemporary cultural studies as well, where authors stipulate that cultural products confirm the order of society. For example, many Hollywood films confirm gender stereotypes (see for example Faludi (2006) p. 3). Adorno and Horkheimer thus showed that the American culture industry created cultural products to reinforce the status quo. Consequently, the authors meant, in the 1930s and 1940s art had been deprived of its politically transformative abilities, as well as made the public into passive spectators of both cultural products and reality.

Walter Benjamin extends the societal critique to include cultural performativity

Like Adorno and Horkheimer, Benjamin was concerned with the production and reception of art since he believed that an artwork never completely represented the real world; he saw it as problematic that an audience passively consumed art. Instead of thinking of an artwork as representing the world in its absolute form, he proposed that art should be used to 'discover' reality. In the *Author as Producer* (1970), Benjamin found reconciliation to the problem in a form of cultural production that actually changed the apparatus of production rather than maintained the status quo: Brecht's epic theatre. It makes the viewer into an active participant that is given the ability to question the order of society. The stage is there used as a space for thinking about social complexity, power imbalances, social relations et cetera (ibid., 93). Benjamin elaborates: "Epic theatre [Brecht] explained, should not so much

³ This was a consequence of the industry's business model in which the value of a cultural product came from its budget, not from the actual meaning of the cultural product itself (Horkheimer and Adorno 2001, 62).

develop an action as present a situation. It attains that condition, as we shall soon see, by allowing the action to be broken up" (ibid., 93-94). Epic theatre thus "does not reproduce situations, rather it uncovers them. The discovery of situations is accomplished by means of the interruption of the action" (ibid., 94). Benjamin dissected Brecht's epic theatre until he found its basic elements, and used it to lay out a formula for how political art could facilitate social change through provoking thought.

Benjamin's reasoning was very much tied to the cause of the Frankfurt School, however he was never an active part of it (Kellner 2002, 44). He specifically concerned himself with an attempt to explain why merely an artist's political attitude was insufficient for revolution. He evidenced a political attitude's failure to alone change society through referring to the League of Nations' inability to stifle war (Leslie 2000, 96). He meant that simply the fact that intellectuals reasoned around ending war would not make it end and quoted Trotsky: "When enlightened pacifists undertake to abolish war by means of rationalist arguments, they are simply ridiculous. When the armed masses start to take up the arguments of reason against war, however, this signifies the end of war" (Benjamin 1970, 96). The war could only end if the people who actually fought decided to act upon the reason and end it.

Leslie (2000) argues that Benjamin's formula based on Brecht's epic theatre in *The Author as Producer* was an intervention into the reigning discourse on art and revolutionary politics, where official communist art theory stipulated that art had revolutionary potential if merely its content was revolutionary (ibid., 98). This was the line promoted by the research group at the *Paris Institute for the Study of Fascism*, the place where Benjamin was set to give his lecture on April 27, 1934. The institute, which aim was to "gather and disseminate information and documentation on fascism" (Eiland and Jennings 2014, 439), had been founded in 1933 and was financed by French intellectuals and workers, although controlled by the Comintern. Benjamin meant that art which solely saw its content as revolutionary made people passive recipients of political messages. Writing about the class struggle and the potential of authors that write political literary criticism to make people politically engaged, he asserted that the proletariat would not see their social position change unless they themselves understood how society functions. It

was therefore only if an author managed to instruct the proletariat about the productive process that served to maintain the social structure that the proletariat would understand what political change they wanted and how to achieve it. Benjamin used Brecht's epic theatre as an example of how an author should instruct her readers, a formula he meant could be applied to any type of art that aimed to change the status quo. Benjamin identified four major criteria for the author to successfully become a producer in Brecht's sense, all four which are elaborated on below.

Political tendency

The first criterion for the author to become a producer is the author's political tendency. The author must always decide in whose interest they write. They need to acknowledge that they write in the interest of a specific social class for which they try to be helpful. Therefore, the author needs to take on and express the same political attitude⁴ as the social class they aim to help (Benjamin 1970, 84).

Progressive literary technique

The political attitude cannot be correct unless the work is also literary correct. The literary correctness can be found through observing the work's literary technique. The literary technique is composed of the *formal qualities of the artwork*. In the literature world, the qualities are the things that compose literature as an institution: "its genres and forms, its capacity for translation and commentary, and even such apparently marginal aspects as its suitability for plagiarism" (Eiland and Jennings 2014, 440). The formal qualities (in short, 'form') that exist in a given social context are informed by the contemporary techniques of production. Benjamin means that the author needs to be up to date, and thus if she wants to influence someone with her writings she needs to use a literary form that is currently in fashion. Put differently, the political message of the artwork (its content) needs to be conveyed in a form that is currently popular with the audience that the author is trying to help. The artwork that has achieved a successful *form* is *progressive*. The artwork has then managed to support and give expression to an author's political attitude

⁴ What Benjamin refers to as 'tendency.' From here on 'political tendency' will be referred to as 'political attitude.'

in a way that makes it an effective tool in informing the people they wish to help. The combination of a progressive literary technique and a political attitude makes the author an *operative writer*. Technique thus bridges *form* with *content*, that is, connects the author's message (i.e. the content) with an appropriate expressive form of the time (Benjamin 1970, 85-86).

Since there is a relationship between form and content where the content must be expressed in a form that is currently popular, the artwork must necessarily be "situated within the living social context" (Benjamin 1970, 84-85). Therefore, the artwork is part of the productive relations rather than stand apart from them, and one must ask where the artwork stands *within* the relations of production rather than how it stands in relation *to* them (Benjamin 1970, 85).

The author's position within the production process

The author must moreover acknowledge her place within the process of production, because if she does not, she merely becomes a beneficiary to the social class she intends to help. Benjamin critiqued the intellectuals of his time since although they claimed to want to help the proletariat in their class struggle, they consciously neglected to define themselves in terms of their position in the productive relations. Instead, they believed to stand outside of social class, merely embodying certain types of character "according to his opinions, ideas or dispositions" (Benjamin 19970, 89). The intellectuals thus ignored their position within the productive relations, and in doing so, their attempts to help the "radical working-class movement" (ibid.) became fruitless since they took up a position *next to* the proletariat rather than joined them. The intellectuals therefore became benefactors who tried to use reason in their political struggle rather than active intervention from a place within the productive relations. To become a producer, therefore, the politically critical author needs to acknowledge her position within the relations of the productive process.

Transmission vs. transformation

The importance of the authors' acknowledgement of their place within the relations of production becomes clearer if one considers how the author uses the resources and competencies they gained from their position within the

productive process. An artwork can only gain revolutionary use-value when the author has demonstrated that they master the competencies that exist in the apparatus of production of which they are part. Paying attention to the competencies is important since these are what the bourgeoisie use to maintain their higher position in society. Lower and higher classes are thus separated by the set of skills that they have. The proletariat, which is the mass controlled by the capitalists, only knows how to use the machines; they do not know the machines' inner workings. It is the inner workings that the bourgeoisie use to control the proletariat through only allowing for a specific set of functions that the proletariat can use. A current example is the Mackintosh computer that has taken human skills (e.g. working with the command line) and embedded them within an operating system that is presented to the user as an interface. The user is only able to do what the interface allows them to (Bowels 2005). Once the author has mastered the inner workings of the production process it is therefore imperative that these are relayed to the proletariat since it will allow them to understand in what way that the higher class controls them. Equipped with this knowledge, the proletariat will be able to create actual change because they would know more specifically what they struggle against. Thus, the intellectuals will have facilitated a *transformation* of the production apparatus rather than a mere *transmission* since they empower the subordinate to change their social position through understanding the production apparatus. Benjamin exemplifies a successful transformation with Brecht's epic theatre. This interruption organizes the action through forcing the spectator to take a step back, contemplate, and take a position towards what is happening before them. Consequently, the spectator has become forced to take on a new perspective towards a given situation (ibid.).

Method: a qualitative content analysis of cultural products that concern surveillance and data collection

The aim of this thesis is to find out whether the creators of six cultural products that deal with online surveillance and data collection manage to turn onlookers into active participants that become able to fend themselves against the status quo of online consumer profiling. Three aspects of these cultural products are therefore of interest here: a) whether the artists have a

political attitude against consumer profiling that they expose either in their cultural products, academic papers, other writings, or all; b) the cultural products themselves that supposedly translate the artists' attitude and demonstrate political criticism; and most importantly, c) the connection between the artists, the cultural products, and their audience. To analyse these three aspects, the following main- and sub-questions will be answered:

Q 1: To what extent do the creators of the cultural products that critically address surveillance and data collection inherit the cultural critical claims formed by Benjamin?

Q 1a: What is the cultural creator's attitude towards surveillance and data collection?

Q 1b: Does the cultural creator manage to become an *operative writer*?

Q 1c: Does the cultural creator succeed in the *transformation* of the production apparatus?

I draw heavily on Benjamin's criticism of art in my analysis. I choose Benjamin's theory as it presents ways to inform an audience – how to turn them from passive onlookers into active participants – and to what extent this is happening. Specifically, I make use of Benjamin's deconstruction of Brecht's epic theatre (as outlined above), in which he identifies elements that he uses to theorize a concept for how a cultural creator can become a producer that informs the public enough to change the status quo. Benjamin thus used Brecht's epic theatre to benchmark his analysis of cultural products since he proposed that the elements he found within it could serve as a checklist towards which he could measure the effectiveness of creators of other artworks in changing the status quo. I will in turn benchmark my analysis on Benjamin's theoretical concept of the *Author as Producer*, although with some modifications such that the analysis fits my purposes of analyzing current-day cultural products that deal with technology; Benjamin concerned himself with writing and stage art.

I will operationalize Benjamin's theoretical concept through a qualitative content analysis to answer my research questions. The qualitative content analysis is chosen as a method for several reasons: first (1), since it emerged in the early 20th century as a response to the expanding media landscape and

the resultant interest in media's effect on citizens (Schreier 2013, 170), timely coinciding with critical theory, Adorno and Horkheimer and Benjamin beginning to pay attention to the political nature of media and how it affected citizens; second (2), since it allows the systematic investigation of a corpus that is diverse in terms of character, but that concern the same topic: it "is a technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts' of their use" (Krippendorf 2004, 18). This aspect is of utmost imperative since the corpus in this thesis is very diverse and consists of the web browser extensions *Lightbeam* ("Lightbeam for Firefox" 2017) and *Go Rando* (Grosser 2017b), the web application *commodify.us* ("Commodify.us" 2017), the informational website *myshadow.org* (myshadow.org 2017a), the physical art installation *Transparency Grenade* (Oliver 2012), and the marketing stunt *Anger Marketing at Roskilde* ("Anger Marketing at Roskilde" 2016);⁵ third (3), as it is used to classify, interpret, and make meaning out of qualitative material's "implicit and explicit dimensions" (Flick 2013, 5) through creating a coding frame (Schreier 2013, 170); and fourth (4), since the method has evolved along with along with the developing media landscape. It was initially a means to reduce the complexity of data such as interviews and newspaper articles, however the development of technology has forced the method in the 21st century to also encompass new media and the technological devices that facilitate their existence since they have become a large and important part of social life (Flick 2013, 13). Thus, it is appropriate to analyse new media products with the method.

The qualitative content analysis thus permits the operationalization of a theoretical concept and the application of it onto different types of cultural products through the creation of a coding frame that serves to interpret and describe the corpus (Schreier 2013, 170). I developed the coding frame for my analysis through dissecting, just like Benjamin did with Brecht, ten articles that explicitly apply Benjamin to the current social context and relations of

⁵ See Appendix 1 for images of each cultural product.

techno-cultural production.⁶ I first analysed Benjamin's original text to find what elements he identified in Brecht's epic theatre to gain an understanding of his theoretical concept. This produced the four main categories of the coding framework (see Table 1).

Table 1. Main categories of the coding framework

1.	Creator's position in the production process
2.	Internal logic artwork
3.	External logic artwork
4.	Transforms production apparatus

I subsequently analysed the ten articles that used his concept in the current social context to see how they operationalized it (Berry Slater 2005; Bowels 2005; Bureau of Inverse Technology (BIT) 2005; Cox and Krysa 2005; Oliver, Savičić, and Vasiliev 2011; Dyer-Whiteford 2005; Grinsted 2005; The Institute for Applied Autonomy (IAA) 2005; Medosch 2005; and Raqs Media Collective 2005). From this analysis I found twenty-four general trends that kept reappearing. Next, these twenty-four trends were rephrased such as they became subcategories, all which fell under one of the four main categories.

Once all subcategories had been generated and defined I conducted a first round of coding of all six cultural products of the corpus to see if the coding needed refinement. Some subcategories were collapsed into each other since they were very similar, whereas others were split in two since they represented more than one meaning. This was done to make sure that the subcategories are mutually exclusive and do not overlap. In the end, twelve subcategories were used for the analysis (see Table 2 for an overview of the subcategories and Appendix 2 for closer descriptions and examples from the ten sources).

⁶ All analyzed texts come from a collection of essays by Cox and Krysa (2005a) that explicitly apply Walter Benjamin's concept of the Author as Producer to the current technical social context of 2005.

Table 2. Final coding framework: subcategories

Creator's position in the production process	Internal logic artwork	External logic artwork	Transforms production apparatus
Works within the production process	Frames data gathering as neutral	Acknowledges the production apparatus' social context	Reveals the production apparatus' exact mechanisms
Acts as fellow engineer	Same logic as production apparatus	References current production relations (users vs. corporations)/exposes the technical elite's claim on social order	Reveals the production apparatus' mechanisms but does not specify them
Views technology as a challenge	Destroys production apparatus		
Expresses political stance (has attitude/tendency)	Provides insight into artwork's function		

The coding was performed twice on each cultural product: once in the pilot phase when the subcategories were still being refined, and once during the main analysis phase. Importantly, according to qualitative content analysis, the coding frame cannot be changed during the main analysis phase. I applied the code frame to the artworks themselves, as well as texts/descriptions that the creators have written about them.

The coding frame is subsequently used to conduct the analysis of the corpus. The thesis' three sub-questions are discussed each in turn in the analysis. Each code is only used once, importantly under the sub-question that it best (according to my own judgement of applicability) pertains to. As this paper is explorative, only one coder (myself) conducted the analysis, which could have drawbacks since coding is to some extent subjective.

Corpus

The corpus, as mentioned in the section above, was chosen since the six cultural products it contains interrogate (according to the creators themselves) the social shift to a networked world where Internet users are always connected to a network and affected by surveillance and data gathering. These cultural products claim to make the inherent power relations visible and provide a means for the Internet users to affect their own position within these productive relations.

Initially sixteen cultural products were found through looking at the online catalogues of new media art festivals, new media art collectives, and new media art exhibitions (see Appendix 3 for a detailed list). I subsequently chose six of these for analysis in the thesis (however, it needs to be noted that many more cultural products would have been applicable to include in the analysis, but due to the limited scope of this thesis both in terms of word count and time, these six were chosen) based on the following criteria: 1) the artworks expose and demonstrate a variety of ways of dealing with surveillance and data collection, which is interesting for me to look at. For example, there is a big difference in how the creators of the marketing stunt *Anger Marketing at Roskilde* and the informational website *myshadow.org* present their political attitude although they concern the same topic; 2) the cultural products as well as information about them were accessible to me through websites and videos; 3) some of the cultural products had received a lot of attention; and 4) some of the cultural products are made by artists who verbally expose a significant amount of political attitude, which is an important aspect of my analysis. For example, *Go Rando*'s creator Ben Grosser is an assistant professor of new media whose academic work is critical to social media metrics⁷ (Grosser 2014). Indeed, his scholarly work reaches the academic community, but not much further outside of that. A narrow reach is also symptomatic of the cultural products in the corpus: although some have been written about in publications such as *The Washington Post* and *Vice*,⁸

⁷ In his article *What do Metrics Want? How Quantification Prescribes Social Interaction on Facebook*, Grosser combines "theories of agency in artworks and materials with a software studies analysis of quantifications in the Facebook interface" (Grosser 2014).

⁸ For example *Go Rando*, where links to different articles can be found at <http://bengrosser.com/projects/go-rando/>

they are exhibited in very niche places and do not reach out to a larger public. Grosser's *Go Rando* (launched in January 2017), has thus far only been exhibited at the exhibition *Blinding Pleasures* at the *arebyte Gallery* in London, "a young, contemporary space dedicated to New Media and Performance Art" (arebyte 2017). Moreover, the *Transparency Grenade* was created to be exhibited at *Transmediale* in 2012, a festival and year-round project that "aim at fostering a critical understanding of contemporary culture and politics as saturated by media technologies ... [it] has turned into an essential event in the calendar of media art professionals, artists, activists, and students" (Transmediale 2017). As evidenced by the exhibition venues of *Go Rando* and *Transparency Grenade*, the reach of new media festivals and similar exhibitions is thus very limited. It is therefore important to note that the cultural products in the corpus never reached a particularly wide audience and that their potential to change the status quo therefore becomes limited due the small reach of audience. There are exceptions, however, that target the general public. One example is *The Glass Room*, a month-long exhibition in New York City in 2016 that presented objects and artworks "designed to provoke personal reflection and public commentary on personal data, privacy and security" (Wright, Alexander, and Mandel 2016).

The corpus is thus a convenience-sample that does have its limitations, however, it will still make for an interesting analysis.⁹ Below is a more detailed description of the corpus. The following is explained for each cultural product: a) the nature of the cultural product and what it aims to achieve; b) who developed it and why; c) the creators' background; and d) the creators' political attitude on data collection, surveillance, and consumer profiling.

⁹ The analysis of these cultural products contributes to an already existing body of scholarship on the effectiveness of cultural products in educating the public about data collection. A special issue of *Big Data and Society* published in March 2017 focused on sur/sousveillance and transparency. It contains a number of empirical and theoretical research papers on artistic, activist, and educational interventions that prove the capacity of artistic and activist practices to spur debate about sous/surveillance in the public discourse. The authors come from disciplines as different as engineering, law, and art. The issue makes clear that a multi- and inter-disciplinary debate about sur/sousveillance is important since there are many different aspects.

Go Rando is a tool to obfuscate¹⁰ Facebook's emotional profiling. Its creator Benjamin Grosser took issue with the profiling since it enables "increased surveillance, government profiling, more targeted advertising, and emotional manipulation" (Grosser 2017b). In general, Grosser's work focuses on the social, political, and cultural effects of software (Grosser 2017a), and he describes *Go Rando* as a measure against governmental and corporate surveillance (Grosser 2014).

Lightbeam is a web browser extension that graphically visualizes the flow of data from a website to which a user navigates to third party websites that track them. It was initially developed in 2011 by Mozilla software developer Atul Varma under the name *Collusion*. He was inspired for the project from having read Eli Pariser's *The Filter Bubble* ("Lightbeam for Firefox" 2017). The *Mozilla Foundation*, a nonprofit that believes the Internet should be an open, global public resource ("The Mozilla Foundation" 2017), took up the project and developed it further in collaboration with the *Ford Foundation*, a social justice organization that has Tim Berners Lee¹¹ on its board of trustees (Ford Foundation 2017). Students from *Emily Carr University of Art + Design* assisted with graphics, and *Collusion* was renamed *Lightbeam* and launched in 2013. The creators do not describe tracking as negative since it has the ability to enrich the online user experience. Rather, they believe that the user should be the one "who decides when, how and if [they] want [their] browsing data to be shared" ("Lightbeam for Firefox" 2017). The creators moreover see the significance of transparency, and view as their mission to "[empower] users – both with tools and information" (ibid.).

commodify.us is a web application created 2013 that allows Internet users to derive economic profit from their Facebook data through providing a tool to licence it. The creators are Birgit Bachler (AT), new media artist, designer and researcher (Bachler 2017), Walter Langelaar (NL), artist, activist and academic in new media art and design (Langelaar 2017), Owen Mundy (US), artist, programmer and designer working on information privacy, public

¹⁰ For an extended account of obfuscation, see *Obfuscation: A User's Guide for Privacy and Protest* (Brunton and Nissenbaum 2015).

¹¹ The creator of the World Wide Web.

space and big data¹² (Mundy 2017b), and Tim Schwartz (US), activist, technologist and artist concerned with “technology, information, privacy, and how our culture absorbs changes in these areas” (Schwartz 2008). The group created *commodify.us* during a residency at *moddr_*, “a media/hacker/co-working cyberspace ... with a focus on the artistic modification (‘modding’) of contemporary and emerging technology” (*moddr_* 2017). The space invites talents that hold a critical attitude towards the current media landscape. The creators see the power imbalance between users and companies that profit from the users’ data as problematic and seek to correct this, providing users with “control over their data and the ways in which it is sold and distributed” (“Commodify.us - FAQ” 2017).

myshadow.org is an informational website that “helps you control your data traces, see how you’re being tracked, and learn more about the data industry” (“About | Me and My Shadow” 2017). Created in 2012, it is continuously developed (*ibid.*). The creator is the Tactical Technology Collective, “a non-profit that explores the political and social role of technology in our lives” (“Tactical Technology Collective” 2017) that consists of “an international group of technologists, activists, designers and practitioners ... who work with citizens, journalists and activists to raise awareness about personal data, privacy and digital security” (Tactical Technology Collective 2014). The collective problematizes data traces and states that once data is online, it is impossible to control (*myshadow.org* 2017a).

Anger Marketing at Roskilde is a campaign that sought to inform festivalgoers about Internet surveillance in Europe. In 2016, the Danish Roskilde Festival put up posters explicitly stating that the visitors’ phone and Internet traffic was monitored, resulting in outrage but culminating in an informational talk by Edward Snowden. The creators were Edward Snowden, former NSA agent who leaked information on how the US government spies on its citizens, The Yes Men at the *Yes Lab*, a culture jamming activist duo that are “devoted to helping progressive organizations and activists carry out

¹² Mundy created the art piece *I Know Where Your Cat Lives*, which placed seven million photos of cats posted to social media on a map through finding them with #cat and retrieved the location from the metadata accompanying the picture (Mundy 2017a).

media-getting creative actions around well-considered goals” (“Yes Lab” 2017), and the Roskilde Festival, one of Europe’s largest music festivals.

Transparency Grenade is a physical artefact that aims to open up a conversation about trusting networked infrastructure. It is created by Julian Oliver (NZ), part of the Critical Engineering Working Group¹³ that creatively and critically works with engineering. Oliver is critical towards the lack of transparency of government and corporations when they take important decisions behind closed doors that affect people (Oliver 2012).

Culture as critique towards technology in the current social context

Benjamin’s concept of the author becoming a producer does not only apply to written works but to cultural products in general. It is echoed in several parts of the contemporary art world, where a representative field is that which connects art to digital technology. A common denominator for many of the works and publications here is their reference to the hacker ethic, which resembles Benjamin’s concept of the producer. Steven Levy laid out the hacker ethic’s six tenets in 1984 based on a summary of the implicit beliefs that the hackers at Massachusetts Institute of Technology had formed during the 1960s and 70s. Summarized, these tenets stipulate that information should be free and never restricted, because access to information facilitates a more effective innovation process that will help society democratically move forward. The hacker learns what needs to be changed within a system through taking things apart, and authority should never be trusted because it employs rules to exercise power and thus restricts the hacker from exploring all possible alternatives¹⁴ (Levy 1984, 75-92).

¹³ See an interview with Oliver on the *Rhizome* blog for more information on Critical Engineering (Huff 2012).

¹⁴ Following are Levy’s six tenets for the hacker ethic:

1. “Access to computers—and anything which might teach you something about the way the world works—should be unlimited and total. Always yield to the hands-on imperative!” (Levy 1984, 76)
2. “All information should be free” (ibid. 77)
3. “Mistrust authority—promote decentralization” (ibid. 79)
4. “Hackers should be judged by their hacking, not bogus criteria such as degrees, age, race, or position” (ibid. 84)
5. “You can create art and beauty on a computer” (ibid. 85)
6. “Computers can change your life for the better” (ibid. 91)

Denis Roio, also known under the hacker alias Jaromil, gave an updated account of the hacker ethic in 2014 (TEDx Talks 2014). Jaromil is a programmer and scholar in the philosophy of technology (“Jaromil | Transmediale” 2017) who interrogates “‘profit and power’ oriented apparatuses” (plymouth.academia.edu 2017). Concerned with social responsibility rather than economic profit (Waag Society 2017), Jaromil’s work focuses on creating tools that will detach knowledge from its current hierarchical structure (plymouth.academia.edu 2017). He moreover founded the ‘Think and Do Tank’ *dyne.org* which gathers likeminded creators (Waag Society 2017). In a TED Talk, Jaromil meant that the social system sees difficult times in the wake of the 2008 financial crisis, and that hackers in this context should try to contribute to a better world through a contribution in the digital realm. Openness is one of the most valuable resources, and hackers should attempt to foster the economy through multiplying things online.¹⁵ Jaromil’s work¹⁶ is endorsed by the Free Software Foundation, which promotes the Free Software Movement. Just like Jaromil, the Movement proposes that software should be free since it will assist society by allowing people to help each other through changing or adapting source code (gnu.org 2017a).

Several instances of the field of art that concern digital technology reflect the hacker ethic and consequently benchmark its art on the proprietary nature of the economic system. Some comment on how society’s structure shapes technology and vice versa. The first quote of this thesis is taken from an interview with Nicolas Maigret and Maria Roszkowska¹⁷ in *Neural*, a magazine that covers new media art and critical digital culture including

¹⁵ However, Richard Stallman, the programmer and software freedom activist who founded the Free Software Foundation and created the GNU General Public License, notes that not all hackers care about ethics. Instead he means that caring about ethics “is a separate trait” (gnu.org 2017c).

¹⁶ Jaromil is currently working on the software project *Secrets*, where the audience is invited to share a secret in a text box on a website and securely share it with five chosen peers. A string of numbers and letters is generated and sent to the five peers. At least three peers need to agree to reveal the secret and type in the string in the software for the secret to be revealed. Jaromil states that the *Secrets* can be used as, for example, a backup for passwords (Roio 2017).

¹⁷ The artists are interviewed about their art piece *War Zone*, where they use Google Earth to visualize historical missile launches to show how current digital tools lack historical depth (*Neural* 2016, 41).

hacktivism and electronic music (Neural 2017). In the interview, the artists mean that the role of the artist who works with any type of technology should be to inform the public about society and the technology that has shaped it, because there is currently no such widespread understanding. Each issue of *Neural* reflects their statement as it contains reviews of hacktivism projects that appropriate technology, reviews of books that take a critical stance towards technology, interviews with new media artists critical towards technology, as well as news and reviews of music that is created by using technologies that were never intended as instruments. All texts in the magazine thus shine light on aspects of technology that are not very obvious at first sight, but that point to the role of technology in society.

The blog *We Make Money Not Art* demonstrates how practitioners spur a critical debate through artistic use of technology. Régine Debatty (BE) forwards the hacker ethic in her blog through posting articles, interviews, reports from media arts festivals, and book reviews¹⁸ “about the way artists, hackers and designers use technology as a medium for critical discussion” (Debatty 2015). Interviews such as that with artist and researcher Joana Moll who researches among other things online tracking and Internet materiality and is currently involved in a project where she critically investigates the politics of interfaces reflect this (Debatty 2017b), as do book reviews of books such as *Culture Jamming. Activism and the Art of Cultural Resistance* (Debatty 2017a), which looks at how participatory culture engages in political activism through means of creative resistance to among other things consumer culture (ibid.). However, in contrast to what Brecht managed to achieve with his epic theatre, culture jamming activists have been critiqued for failing to make their audience reconsider their own position in “the social and political hegemony of popular culture” (Sandlin and Milam 2008, 343) and have rather seen these performances as offensive. Moreover, culture jamming could serve to reinforce the very market system it claims to obstruct

¹⁸ A book review is of the anthology *Mass Effect: Art and the Internet in the Twenty-First Century* from in 2015. It points to the fact that there is no consensus over the Internet art field’s shape, evidencing that the field is still forming. The anthology claims to be the “first resource of its kind to bring together primary research on the ever-evolving relationship between art and technology in the new millennium” (Cornell and Halter 2015, xi). It also claims to provide the necessary vocabulary and terms for a fruitful debate in the coming years.

through feeding in to consumer culture where cultural capital consists of brand knowledge (Carducci 2006).

The Free Art and Technology Lab also appropriates the hacker ethic in its approach to art and suggests that art should be created as open source. Evan Roth¹⁹ (US) and James Powderly (US) co-founded the F.A.T. Lab in 2007 as an organization that embraced the ethics of free culture with the ambition to create art that meaningfully contributes to society. Inspired by the hacker mentality and viewing the production process as fluid, the F.A.T. Lab's motto is "release early, often and with rap music" (Roth, n.d., 17). Twenty-five designers, artists and hackers make up the group (*The FAT Manual* 2013, 7), which borrows inspiration for their artworks from different communities, including "activists, hackers, DIY designers and researchers" (ibid., 8). Their mission is to enrich the public domain through creating an "open source revolution in art" (ibid., 9), which they attempt to accomplish through collaborative projects, publish the projects online, and release the projects' source code (ibid., 9). The mission is contrary to that of traditional artists that refrain from sharing their practices in the pursuit of a personal style that will establish them in the art market (ibid., 8). The group has created many artworks over the years, and included a few in the *The F.A.T. Manual*. The *Manual* should not be seen as a catalogue over the works, but rather as a tool for artists who believe that information should be free and wish to partake in the open source art revolution. A clear expression of the F.A.T. Lab's attitude towards art and technology is the licence it chose for *The F.A.T. Manual*: a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.²⁰ The *Manual* enthusiastically encourages the use and adaption of the art pieces within (ibid., 9).

Collectively, the art sources here approach technical cultural products as artefacts that have the potential to benefit society and thus see the

¹⁹ Roth's artwork *The Internet Cache Self Portrait* is a large print of images of things such as corporate logos and photos of friends from social media that Roth comes across in his everyday Internet browsing. The work serves to expose the interactions between people online as well as point out that things that were never intended as memories will always stay online (Roth 2017).

²⁰ Creative Commons "provides free, easy-to-use copyright licenses to make a simple and standardized way to give the public permission to share and use your creative work—on conditions of your choice" (Creative Commons 2017b).

necessity in using technology to spur critical debate about society and openly share them, just like Benjamin called for; the art they produce or mention is a reaction to both the proprietary character of technology, the art world, and social developments.

The rationale behind cultural products as critique towards surveillance and data collection

Contemporary society has seen a growing impact of surveillance and data collection on the Internet. This development has prompted the creation of a number of cultural products that critically address these practices, such as the six cultural products mentioned in the corpus. To motivate the analysis of these and understand the importance of their existence, an account of power structures that exert control over individuals in society is needed.

The reach of power shifts along with technological development

Foucault showed that the exercise of power evolves along with technological development (Foucault 2003). In the sovereign society, previous to the 17th century, power was centered on the individual, and the “Sovereign power’s effect on life is exercised only when the sovereign can kill” (ibid., 240). The disciplinary society that arose in the 17th century saw a development where the sovereign exercised power over the individual throughout their whole life via technologies of power such as a system of surveillance and bookkeeping (ibid., 242). Due to the rise of biopolitics in the second half of the 18th century, disciplinary power was modified. Now, the State came to deal “with the population as a political problem ... as power’s problem” (ibid., 245) in its self-interest of economic prosperity. Importantly, the focus of power came to shine on the whole population rather than the individual to maximize the State’s productive output. Demographers used statistics such as “forecasts, statistical estimates, and overall measures” (ibid., 246) as disciplinary mechanisms to counteract random destructive events that could threaten the population’s effectiveness and consequently the State’s prosperity.

Deleuze (1992) observed that Foucault wrote about power as contained within enclosures and institutions such as the factory, but noted that power’s reach had been extended with the development of information technologies. According to him, the late disciplinary society thus saw

individuals as massed together under the control of capitalism. Nevertheless, capitalism's hold on the masses became destabilized with the rise of neoliberalism and the force of technological advancement that included the development of information technologies, because people were freed from their confined spaces. Operating outside of their confined spaces people were led to believe that they were not controlled, when in fact they still were. Deleuze thus meant that capitalism had re-established its control over the masses through information technologies. These were used as instruments of social control through connecting the individuals to a larger network of technological control systems. Importantly, capitalists were able to determine whether someone should get access to information through placing passwords and the like. Deleuze describes this situation where power is exercised through always connecting individuals to a network as the *control society* (Deleuze 1992). Galloway in turn extends Foucault and Deleuze's account of control to include the Internet. Scholars and practitioners meant that the Internet would provide freedom from hierarchical and centralized control, however Galloway argued that the Internet is merely an extension of the centralized control over masses (Galloway 2004, 8).

An economic rationale behind control on the Internet

Foster and McChesney expose an economic rationale behind the governance of Internet users. According to them, financial speculative activity increased with the rise of neoliberalism and financialization of the economy after World War II. The high-speed computer networks that were developed intensified the practice, necessitating data on people to manage individual and market risk. As a consequence, the authors mean, people's household mortgages, credit-card use, and personal information such as health insurance and student loans became monitored – it meant “the intrusion of finance into all aspects of life” (Foster and McChesney 2014). Foster and McChesney explain that to manage the data, American corporations began to build large data bases that linked to data mining services provided by data brokers.²¹ The Internet's commercialization with the World Wide Web in the early 1990s

²¹ Today, data brokers harvest and keep data on millions of people. Axicom has 1500 data points on 200 million Americans (Foster and McChesney 2014).

intensified data mining practices since it created a tremendous amount of users that generated data from their online activities, and at the new millennium the Internet had become one of the most important places for capital accumulation. In 2014 Google, Apple, and Microsoft were three of the four highest valued American corporations (Foster and McChesney 2014).

Corporations thus capitalize on the surveillance, collection, and refinement of Internet users' personal information. Lyon (2007) defines surveillance as a set of practices that are carried out by a party for specific purposes (ibid., 15). From its nature, it follows that social relations imbued with power are intrinsic to surveillance. These comprise the 'watcher' and the 'watched', where the former holds a privileged position and 'looks over' the other (ibid., 4). The watcher collects and organizes the information retrieved from the watched, and the information must be classified for meaning to be derived (ibid., 73). Importantly, Lyon states that although the surveilled subject occupies a subordinate position, she is not necessarily passive. Rather, surveillance is a dynamic process of which the watched could be an active participant, such as a blogger revealing details about her life (ibid., 16). Moreover, he explains that the watched is subject to surveillance through data in three different ways: *directed data*, traditional forms of surveillance where a watcher employs a technology such as CCTV cameras and government censuses; *automated data*, a process often unknown to the user where data is "generated as an inherent, automatic function of the device or system" (Kitchin 2014b, 92) and lacks extensive human oversight. It is generated in five different ways²² where *interaction data* is most relevant for Internet users since it is generated at an individual's every interaction with ICTs. Clickstream data and cookies are important techniques. Algorithms usually act on this data to manage a phenomenon (ibid., 89); and *volunteered data*, where data is voluntarily "traded or gifted by people to a system" (ibid., 93). It includes actions such as providing information on social media or making credit card transactions.

²² Automated data is generated, except for through *interaction data*, through *automated surveillance*, *digital devices*, *sensed data*, and *scan data* (Kitchin 2014b, 89-92).

Haggerty and Ericson (2000) argue that the data that is gathered about an individual is used to create a 'data double.'²³ The data double is a type of digital shadow constructed from data fragments left behind online by the individual. The authors state that it is important to keep in mind that the data double is not a mirror image of the individual it supposedly represents, but rather an expression of their measured behavioural attributes. Yet, it is used as an informational tool by institutions and organizations to discriminate between individuals, determining whether they gain access to services and resources (ibid., 613) and has therefore gained social significance²⁴ (Lyon 2007, 88).

Statistical governance in contemporary society

The data double is an expression of statistical governance such as that of Foucault's biopolitics, but extends it into the digital realm. Importantly, the focus of power has shifted. While Foucault saw power as focused on either the individual (in the sovereign society) or the population (in the disciplinary society), Deleuze saw power's focus shift to control both the individual and the population: "We no longer find ourselves dealing with the mass/individual pair"

²³ The term 'data double' has many synonyms, for example 'data shadow' (myshadow.org 2017a).

²⁴ Yet, it is important to acknowledge that users are not always deceived about data collection. The European Union established the *ePrivacy Directive* (Directive 2002/58/EC) in 2002 as a means to ensure that member states stipulate laws protecting their citizens' right to privacy on electronic communications networks (European Parliament 2017). Specifically, the directive applies to electronic communications networks and services that are public or publicly available (European Commission 2017, 47) and owned by businesses in the European Union. It supplemented the Data Protection Directive 95/46 EC that protects individuals in regards to data processing. In turn, the *ePrivacy Directive* was partly amended in 2009 by Directive 2009/136/EC, where among other things, it introduced the EU Cookie Directive that requires "websites to obtain informed consent from visitors before they store information on a computer or any web-connected device" (European Commission 2017, 47). Directive 2009/136/EC did not overtly define the term 'cookies,' but instead uses it as a general term for "the storing or accessing of information contained in the terminal equipment of a subscriber" (European Commission 2017, 45). Importantly, the Directive ensures that users are empowered to determine their desired level of privacy.

Although a tool to empower Internet users, the design of the EU Cookie Directive does not empower the user to the extent that the Directive seems to claim. It does allow the user to gain control over their privacy; however, many websites will not allow the user access unless they accept the placement of cookies on their electronic device. If a user necessarily needs to interact with a website that requires the acceptance of cookies, it is possible to state that the user becomes coerced into providing data. A situation as such is comparable to the wage labour contract in which those that control the productive resources have a "disproportionate power in setting the terms of access" (Andrejevic 2010, 93). In this type of situation the user has no other choice but to abide to the terms of access set by the website owners, and the EU Cookie Directive has lost its force.

(Deleuze 1992, 5). Gandy (2003) means that this twofold focus of power and surveillance is expressed in contemporary statistical governance in the form of *consumer profiling*, “the attempt to assign individuals to one or more groups or segments on the basis of attributes they share, or are assumed to share to some degree” (ibid., 365). He explains that consumer profiling is conducted through ‘remote surveillance’ (ibid., 363), an ‘impersonal gaze’ that inserts itself between the ‘watcher’ and the ‘watched.’ Applied statistics, a subset of applied mathematics, are used to analyze large pools of data (ibid., 368). Importantly, the information that is searched for is not explicit in the pools of data, but is rather ‘discovered’ through mathematical analysis of relationships between different data. Statements are subsequently made from these data about real-world phenomena (ibid., 370). Gandy thus means that data mining is about predictions and the identification of Internet users’ behaviour, which is necessary knowledge for an organization to fulfill its goals. For example, corporations could use data mining to identify “the 20 percent of the customers who are likely to provide 80 percent of the profits (ibid., 364). Importantly, the individual’s profile depends both on her own behavioural attributes, and how these relate to those of a larger population (Gandy 2007, 370) – the individual is controlled in relation to the control of the larger population. Thus, the relations of production place the Internet user in an inferior position to those that own the means of production, because knowingly or not, the user provides capital with information that capital subsequently uses for their own benefit in ways that might not be clear to the user.

Discussions of online surveillance and control in society

Internet users are often aware that their data is gathered when they interact with websites. Yet, they do often not think twice before exchanging their personal information for access to a service. Andrejevic (2007) makes a thought-provoking assertion in relation to online surveillance, asking the reader to imagine a scenario where at the inception of the commercial Internet, governments would have provided free email addresses and free Wi-Fi, accompanied by the promise that they would not analyze the users’ data. If this had been the case, he means, people would have been more careful with

scattering their private information online (ibid., 313). This provoking statement acknowledges boyd and Crawford's (2011) view that it is not the data itself that is problematic and which needs to be interrogated, but rather that it is the phenomenon that surrounds it, including its inherent assumptions and biases.

Two major events have shone light on the phenomena around data gathering practices in the American context. First, Gandy (2003) points to the revelation in 2002 that the American Department of Defense was about to create the Total Information Awareness program. As a symptom of the 9/11 attacks, the government had decided to collaborate with commercial data-management companies in order to mine large-scale databases for potential terrorist threats (ibid., 376). Foster and McChesney (2014) identify the second major event, which was Edward Snowden's revelations in 2013 about how the NSA collaborates with monopolistic corporations such as Microsoft, and Apple to expand the government's data and intelligence resources. Snowden called attention to the "pattern of a tight intertwining of the military with giant computer-Internet corporations" (ibid., 13). The public reaction was strong to both events. The two disclosures thus exemplify what Giddens (2013) has termed the *dialectics of control*, which stipulates that if surveillance becomes perceived in a negative fashion, there will be public opposition.

The scholarly debate on corporate surveillance

Giddens discusses the dialectics of control in relation to the nation-state, and Lyon adds that the concept should be extended to include corporations as well since they have surpassed the nation-state in the capacity for mass surveillance. Moreover, they are important to include since they collaborate with governments (Lyon 2007, 163).

Scholars have proposed several means to protest and change corporate data gathering practices. Law professor and political activist Lawrence Lessig (2007) asserts that there is no point in fighting the practice of commercial data gathering since the business model of separating Internet users from their data is here to stay. Speaking of online privacy, he suggests that the issue should be thought of as *privacy without control over data*. Rather than attempt to restrict data gathering practices, guidelines on how to

conduct it should be introduced. He thus proposes the concept of ‘regulated tracability’ where it needs to be ensured that the link between the user and their data is erased. Thus it is the traceability of the data that should be regulated, not the access to it (Lessig 2007). Lessig means that people would thus stay anonymous online, and would not become subject to consumer profiling. Other scholars call for transparency as a mode to regulate consumer profiling (Ananny and Crawford 2016; Rosenblat, Kneese, and boyd 2014; and Gandy 1993). Crain (2016), however, takes issue with the transparency method as a means to empower individuals in the face of commercial surveillance. Through a case study of data brokers, he asserts that transparency has two major limitations: first, there are structural impediments in that the business is very complex, and it is hard to trace data back to its original source since companies buy and sell data from each other. Second, companies engage in ‘regulatory deflection’ where they engage in voluntary self-regulation that makes it seem as though they care about people’s privacy, when in fact they use it as a PR trick to protect themselves from scrutiny by authorities. There is thus no established consensus among scholars on best practice to regulate corporate data gathering.

Some scholarly actions against corporate surveillance echo Benjamin’s concept

A group of scholars propose an approach of resistance to surveillance that is less instrumental than means such as transparency. Rather than trying to restrict data gathering through laws and regulation, they seem inspired by Benjamin’s concept of the *Author as Producer* and enlighten Internet users about the production process. Essentially, these scholars interrogate the structure of the market through investigations into specific parts of the production process. In their writings, they also explain how the user is able to utilize the uncovered knowledge to create change in the established apparatus of production. For example, Jaromil shows how Rasta software is an alternative to the current reigning ideology of proprietary software. Through examining the differences between the two, he concludes that free software empowers people to take part of the production process since they are able to use the tools themselves (Jaromil 2005). Moreover, Gehl (2015) investigates *alternative social media* and shows how it protests corporate social media

through subverting its practices by allowing its users both content production and site construction. The scholars that echo Benjamin take on an attitude that is close to that of artists that are critical towards technology in their work. It is cultural products that echo Benjamin as such that will be interrogated in the following analysis.

Analysis: how cultural products concerning surveillance and data collection express Benjamin's cultural critical claims

The analysis of the six cultural products with the twelve subcategories provided the following results (Table 3). Green indicates that the cultural product fulfilled the code, whereas red indicates that it did not. A detailed analysis follows in the subsequent sections.

Table 3. Results from the second round of coding.

Coding units	Main categories	Internal logic artwork	External logic artwork	Transforms apparatus of production
Lightbeam	Creator's position in production process	Frames data gathering as neutral	Acknowledges the production apparatus' social context	Reveals the production apparatus' exact mechanisms
	Works within the production process	Same logic as production apparatus	References current production relations (users vs. corporations)/exposes the technical elite's claim on social order	Reveals the production apparatus' mechanisms but does not specify them
	Acts as fellow engineer	Destroys production apparatus Provides insight into artwork's function		
Go Rando	Views technology as a challenge Expresses political stance (has attitude/tendency)			
	Works within the production process	Frames data gathering as neutral	Acknowledges the production apparatus' social context	Reveals the production apparatus' exact mechanisms
	Acts as fellow engineer	Same logic as production apparatus	References current production relations (users vs. corporations)/exposes the technical elite's claim on social order	Reveals the production apparatus' mechanisms but does not specify them
commodify.us	Views technology as a challenge Expresses political stance (has attitude/tendency)	Destroys production apparatus Provides insight into artwork's function		
	Works within the production process	Frames data gathering as neutral	Acknowledges the production apparatus' social context	Reveals the production apparatus' exact mechanisms
	Acts as fellow engineer	Same logic as production apparatus	References current production relations (users vs. corporations)/exposes the technical elite's claim on social order	Reveals the production apparatus' mechanisms but does not specify them
myshadow.org	Views technology as a challenge Expresses political stance (has attitude/tendency)	Destroys production apparatus Provides insight into artwork's function		
	Works within the production process	Frames data gathering as neutral	Acknowledges the production apparatus' social context	Reveals the production apparatus' exact mechanisms
	Acts as fellow engineer	Same logic as production apparatus	References current production relations (users vs. corporations)/exposes the technical elite's claim on social order	Reveals the production apparatus' mechanisms but does not specify them
Transparency grenade	Views technology as a challenge Expresses political stance (has attitude/tendency)	Destroys production apparatus Provides insight into artwork's function		
	Works within the production process	Frames data gathering as neutral	Acknowledges the production apparatus' social context	Reveals the production apparatus' exact mechanisms
	Acts as fellow engineer	Same logic as production apparatus	References current production relations (users vs. corporations)/exposes the technical elite's claim on social order	Reveals the production apparatus' mechanisms but does not specify them
Anger marketing at Roskilde	Views technology as a challenge Expresses political stance (has attitude/tendency)	Destroys production apparatus Provides insight into artwork's function		
	Works within the production process	Frames data gathering as neutral	Acknowledges the production apparatus' social context	Reveals the production apparatus' exact mechanisms
	Acts as fellow engineer	Same logic as production apparatus	References current production relations (users vs. corporations)/exposes the technical elite's claim on social order	Reveals the production apparatus' mechanisms but does not specify them

1. The cultural producer's attitude towards surveillance and data gathering

The code “Expresses political stance (has attitude/tendency)” shows that all creators take a critical stance against surveillance and data collection. It seems that they all have experienced the dialectics of control since they object to the practices, and arguably it is these sentiments that inspired the creators to make their artworks in the first place. For example, Atul Varma was appalled when he read Eli Pariser’s *The Filter Bubble* and created *Collusion* (today’s *Lightbeam*) as a consequence. At *Lightbeam*’s official launch, then-Mozilla CEO Gary Kovacs gave a TED talk where he was aghast over that his nine-year-old daughter was tracked and profiled online. He here expressed how surveillance had gone overboard (Kovacs 2012). Mozilla does nevertheless not say blankly no to data collection, but states that the Internet user should be the one who controls when and how it happens. *Anger Management at Roskilde* is another clear expression of the dialectics of control since Snowden leaked information that made society react when they understood the extent to which the American population is surveilled. The creators of *commodify.us* do not state that data itself is problematic, but rather see a problem with the power imbalance between users that provide data and corporations that capitalize from it. *myshadow.org*’s creators, the *Tactical Technology Collective*, problematizes data through stating that once it is online, it is impossible to control, a statement that echoes Lessig’s assertion that commercial data gathering is here to stay. *Go Rando*’s creator, Ben Grosser, takes issue with the volunteered data from emotional reactions on Facebook and means that it facilitates surveillance and profiling. Finally, the *Transparency Grenade*’s creator Julian Oliver critiques the level of trust that is currently placed in network infrastructure when decisions about it are in fact being made by governments and corporations behind closed doors.

Additional support for the artworks creators’ political attitude is found through observing the codes “Frames data gathering as neutral” and “Views technology as a challenge.” In the former, all artworks except for *Lightbeam* were coded as not seeing data collection as neutral, but rather take a negative stance towards it. *Lightbeam* is an exception since Mozilla

acknowledges that data collection also has positive benefits. In the latter, *Go Rando* for example took issue with Facebook's emotion reactions since it facilitates increased surveillance and profiling. In terms of taking a stance against surveillance and data collection, all artworks therefore fulfill Benjamin's first part of the criteria for the creator to become a producer.

2. The cultural producer as an 'operative writer'

The cultural product can only successfully relay the creator's political attitude if it uses a progressive literary technique – the conveyance of a political message (content) in a form that is currently popular with the audience. The cultural product must therefore necessarily be thought of as part of the social context and situated within the relations of production.

Content

The cultural products' content depends on the creator's political attitude. The attitude is in turn determined by the creator's beliefs about the productive relations. A cultural product should therefore be thought of as standing within the productive relations. The cultural products' content can thus be found through the codes "Acknowledges the production apparatus' social context" and "References current production relations (users vs. corporations)/exposes the technical elite's claim on social order."

myshadow.org acknowledges a social reality in which the Internet user is tracked everywhere they go online through informing them with videos, text, workshops, and activities. The website could be thought of as a visualization of how Deleuze imagined capitalism's control over individuals by means of information technologies that connect them to a larger network of technological control systems. This since the website attempts to help the user "control your data traces, see how you're being tracked, and learn more about the data industry" ("About | Me and My Shadow" 2017). *myshadow.org* thus helps individuals minimize their data doubles through informing them about their place within the productive relations.

Anger Marketing at Roskilde takes a different, yet effective approach. The marketing stunt did not just point to the productive relations like *myshadow.org*, but rather used the productive relations as the basis for the stunt. Posters were put up at the entrance to the festival that stated that once

a visitor entered the festival grounds, all their phone traffic (including texts and calls), Internet activity, and meta data would be collected and stored by the festival for an indefinite period of time, as well as be shared with ‘partners.’ The posters looked very realistic as they mimicked the official festival posters. Outrage grew among the visitors and became so strong that the creators had to cut their marketing stunt short and stop it after only two days. The stunt culminated in Edward Snowden addressing the visitors via video link from Russia about the extent and growth of surveillance in Europe. *Anger Marketing at Roskilde* thus used the festival visitors as oblivious actors in a staging of the data collection production apparatus.

Form

It is clear that the creators of both *myshadow.org* and *Anger Marketing at Roskilde* use contemporarily successful forms to express their content. The same holds for the four other cultural products. *Lightbeam* and *Go Rando* are web browser extensions; *commodify.us* is a web application; *myshadow.org* is an informational website; *Anger Marketing at Roskilde* is a marketing stunt with video link participation; and *Transparency Grenade* is an art installation that depends on software. Regardless, the combination of the correct political attitude, content that supports it, and a fashionable form that conveys it is not enough to automatically make the cultural creator an operative writer. The code “Same logic as production apparatus” is useful here.

Ben Grosser holds a political attitude against Facebook’s emotional profiling. Specifically, he identifies as problematic the volunteered data that indicates a user’s emotional reaction to a post, which is an extension of his previous academic and artistic work on how Facebook uses metrics to create a desire in people to interact on the network (Grosser 2014). He has created *Go Rando* as a web browser extension where every time a user clicks “Like,” the extension randomly chooses an emotional reaction. Thanks to the serendipitous nature of the extension, emotions will be chosen such that no emotion is volunteered as data more than any other. As a result, it seems to the Facebook algorithms that the user is emotionally stable. However, the purpose of the extension would not make any sense if it were not accompanied by a textual description of its reason for existence. Thus, the

actual cultural product that is *Go Rando* is merely the tip of the iceberg of Grosser's political attitude. It is only through a textual description that the user comes to understand that the extension is in fact a reaction to the power structures of the Internet. Reading Grosser's comments about his extension, it is clear that he reasons along the lines of Deleuze. Through introducing emotional reactions, Facebook's information technology has extended its reach even deeper into an individual's life and is now able to quantify emotion. This quantification could in turn have negative implications for the user if the information gets into the hands of marketers, governments, insurance companies and others that use it to discriminate between people; emotion becomes part of statistical governance. *Go Rando*'s description thus points to how Facebook exercises power over its users unbeknownst to them, which confirms that the Internet did not provide freedom from centralized control, but is rather an extension of control over the masses. Therefore, although *Go Rando* takes a fashionable form, that alone does not make Grosser into an operative writer. Instead, the extension needs to be related to his writings and comments about it. With the combination of the cultural product that is the extension and Grosser's text about it, he becomes an operative writer.

Julian Oliver encounters the same problem as Grosser despite the *Transparency Grenade*'s materialization as a physical artefact, however to a lesser extent. Oliver's political attitude is a critique of the opaqueness of governmental and corporate decision-making about network infrastructure and information flows, a reflection of his affiliation with the Critical Engineering Working Group. The Group believes that an engineer must always consider the implications of code, use engineering for the greater good, and think critically about the creation and impact of technology.²⁵ The artwork is a physical grenade created from resin, metal, and electric components. It is exhibited fully assembled next to a browser-based map that visualizes all Internet traffic²⁶ that it captures within its vicinity once the pin is pulled. The *Grenade* thus comments on the power structures maintained by governments

²⁵ See <https://criticalengineering.org/> for all eleven tenets of the Critical Engineering Manifesto.

²⁶ Including "User names, hostnames, IP addresses, unencrypted email fragments, web pages, images and voice" (Oliver 2012).

and corporations that serve to exclude the general public from understanding how decisions about technology that impact economic and social development affect their lives. Oliver suggests that the *Grenade* can be activated in corporate boardrooms, which would literally make it into a tool to 'discover' reality such as Benjamin called for. The fact that the *Grenade* is exhibited next to the map situates the artwork in a context that makes its reason for existence understandable to the audience. Moreover, it was initially created in 2012 to be part of an exhibition in Berlin where everyone from the Critical Engineering Working Group exhibited on similar topics. Thus the *Transparency Grenade's* exhibition setting also contributed to its understanding. However, the deeper meaning including its commentary on power structures can only be gathered if Oliver's text about the artwork is read. He does indeed then become an operative writer. Yet, thanks to the context of the *Transparency Grenade's* form, Oliver has an easier time than Grosser in becoming an operative writer. This points to a difference in artworks such as web browser extensions and physical artefacts: the browser extensions need more external textual contextualization than physical artworks for the creator to become an operative writer.

3. Transformation of the production apparatus

The author not only needs to use a correct form and political attitude to create change, but must also join the movement they seek to help rather than take up a place beside it. To make this happen, the author cannot merely use theory, but needs to acknowledge their place within the relations of production and actively intervene in the productive process. Importantly, the author needs to relay to the audience the competencies they have about the productive relations.

The author's position in the production process

The code "Works within the production process" indicates that all cultural creators acknowledge their place in the production process. However, not all creators are an *active* part of the productive process and work within the business of surveillance and data collection. It is not possible to draw a clear-cut line between the cultural products in terms of their creators' place in the productive process. First, *commodify.us*, *myshadow.org*, and *Anger*

Management at Roskilde have several creators, all with different backgrounds and competencies. *Anger Management at Roskilde* is a prime example, where the creators are the Roskilde Festival (one of Europe's largest popular music festivals), The Yes Men (a culture jamming activist duo), and Edward Snowden (formerly worked for the NSA). Second, the creators of the cultural products with one single creator, *Lightbeam*, *Go Rando*, and *Transparency Grenade*, have several backgrounds themselves. The creators of *Lightbeam* and *Go Rando* will be analyzed in more detail below since the former's creator works at Mozilla, an organization that is part of the data collection process of production, and the latter's is an academic that studies the process of production from afar.

Creator as part of the production process

Atul Varma worked within the production process as a software developer at the Mozilla Foundation when he created *Lightbeam*. He acknowledged his position since he saw that the resources that his place within the productive relations presented him with, provided the opportunity to act on his reaction towards the *Filter Bubble*.

Creator as not part of the production process

A more extensive explanation is needed to understand Ben Grosser's position in the productive relations since he is an academic who uses his academic work to inspire his art, as well as his art to inspire his academic work. As external from the production process of surveillance and data gathering, Grosser's cultural product risks to fall short of revolutionary use-value since he could express a revolutionary theme without acknowledging his position in the production process. Grosser manages to navigate this fine line, however, and exemplifies a creator that becomes an active contributor to a cause, rather than the beneficiary Benjamin warned for, who saw themselves as standing above a political struggle and merely used rational thought. Grosser avoids the beneficiary position through acknowledging the ability his position as an academic has given him to intervene into the production process; rather than using skills and knowledge gained from the actual production process, he uses what he has learnt as an academic. The code "Destroys production apparatus" shows that his product interferes with Facebook's business model

through making the user unavailable for emotional profiling. Thus, although Grosser himself is not situated within the productive process, he uses knowledge gained from outside of it to insert his product into it.²⁷ A cultural producer must thus not be situated within the productive process to be able to interfere with it.

The cultural creator actively intervenes into the production process

Varma not only acknowledged his position within the productive process, but also communicated to Internet users the knowledge it had given him, just like Grosser. The code “Act as fellow engineer” provides an example. Varma combined his political attitude with a fashionable form to relay his competence through *Lightbeam*. The extension visualizes what third party websites the websites an Internet user actively visit shares their data with. With this knowledge, the Internet user first becomes empowered to understand that their interaction with a website generates data for third party websites. Second, the user comes to understand that browser privacy extensions are effective in preventing data from traveling between websites.²⁸ This becomes especially clear when *Lightbeam* is activated on a browser that uses *Ghostery*²⁹ compared to a browser that does not. The amount of relationships between first and third party websites is drastically reduced when *Ghostery* is activated. Thus, Varma has succeeded in making the Internet users understand where their data travels, and prepares them to take necessary measures to reduce their data double. It needs to be noted, however, that reducing one’s data double is not sufficient to in itself change the apparatus of production, but it is nevertheless a step towards changing it. Varma’s approach to his cultural product is therefore a stark contrast to official communist art theory and has a true revolutionary use-value.

Transformation

The Internet users do not only become active participants of the production apparatus through using the cultural product in the form that it is presented to

²⁷ For an extensive explanation of Facebook’s business model, see *The Political Economy of Privacy on Facebook* by Fuchs (Fuchs 2012).

²⁸ *Lightbeam* is connected to such extensions on the Mozilla add-one page through being part of the Collection ‘Get smart on privacy’ curated by Mozilla. There, several browsing privacy extensions are presented (Mozilla 2017a).

²⁹ *Ghostery* is part of the same privacy collection as *Lightbeam* (Mozilla 2017b).

them by the cultural producer. Instead, they can also become active participants through interacting with the products' source code.

The codes "Reveals the production apparatus' exact mechanisms" and "Reveals the production apparatus' mechanisms but does not specify them" indicate to what extent the six cultural products in themselves inform the public about the mechanisms of surveillance and data collection. These codes can be compared to how the hacker deconstructs things to understand the problems of a system. *myshadow.org* and *Anger Management at Roskilde* reveal the production apparatus' exact mechanisms, whereas *Lightbeam*, *Go Rando*, *commodify.us*, and *Transparency Grenade* do not. *myshadow.org* uses informational videos, texts, workshops, and activities to explain how an Internet user's data double is constructed through location- and browser tracking. *Anger Management at Roskilde* similarly reveals how surveillance and data collection functions through staging at the festival the exact same tactics that governments use. *Lightbeam* on the other hand only visualizes the HTTP traffic between first and third party websites. As a web application, *commodify.us* merely provides the user with enough information to understand why the economic value of personal data matters, as well as how to use it. *Transparency Grenade* moreover only visualizes the Internet traffic it captures, not how it does so. Last, *Go Rando* solely chooses a random emotion but does not explain how or why.

It is possible to see that the extent to which the cultural products reveal the production apparatus' underlying mechanisms is related to their form. The ones that take on a more informational form (*myshadow.org* and *Anger Management at Roskilde*) do so better than those that take a more instrumental form. However, *commodify.us*' form as a website (although it denotes itself as a 'web application') provides it with the potential to elaborate (just like *myshadow.org*) on the underlying mechanisms of production, but there seems to have been an active choice by the creators not to do so. Therefore, the extent to which the underlying mechanics of the apparatus of production are revealed seems to be determined by a) the *form* of the artwork, and b) the creator's active choice.

Nevertheless, information provided by the cultural producers that complements the cultural products makes it clear that the creators of all

products have a good understanding of the underlying productive mechanisms and are able to convey to Internet users what it is that they want to change and how to change it. As an example, refer back to the analysis of *Go Rando*'s form, which also exhibits how Grosser has systematically interrogated Facebook's metrics throughout several years and thus adheres to the hacker ethic of deconstruction.

The code "Provides insight into the artwork's function" reveals the cultural producer's extent of understanding the production apparatus, as well as their adherence to the hacker ethic. The creators of *Lightbeam* and *Go Rando* both provide their source code on GitHub³⁰ ("Mozilla/lightbeam" 2017); ("Bengrosser/go-Rando" 2017). *Transparency Grenade*'s creator Julian Oliver provides instructions for both the hardware and software of his product. Moreover, he meticulously describes the software he used to develop it³¹ (Oliver 2012). Public licences are also placed on the cultural products that allow the users to adapt and change them to varying degrees. The producers of *Lightbeam*, *myshadow.org*, and *Transparency Grenade* use a Creative Commons license³² with 'Attribution-ShareAlike,' meaning that as long as the creator is credited, changes are indicated and the same license is used in turn, anyone is allowed to "Share – copy and redistribute the material in any medium or format" and "Adapt – remix, transform, and build upon the material for any purpose, even commercially" (Creative Commons 2017a). For *Go Rando*'s source code, Grosser uses the GNU General Public licence v. 3 (bengrosser/go-rando 2017), which ensures that it is a free software for anyone to copy and distribute but not change (gnu.org 2017b). The provision of code and licences that encourage the share and adaption of the cultural products conforms to *The F.A.T. Lab*'s attitude to open source art, as well as to Jaromil and the Free Software Foundation's fundamental beliefs. It moreover follows the hacker ethic's call for deconstruction and free information.

³⁰ A platform that facilitates collaboration in the construction of code and software (GitHub 2017).

³¹ Oliver's laptop ran the OS Debain Stable, and he used the text editor IDE VIM to do his programming.

³² *Lightbeam* and *myshadow.org* use CC BY-SA 3.0, whereas *Transparency Grenade* uses CC BY-SA 2.0 ("Lightbeam for Firefox" 2017); (*myshadow.org* 2017b); (Oliver 2012).

Social implications of the creators' ability to make Internet users active participants

Interestingly, this analysis reveals that Benjamin's concept of the *Author as Producer* still holds in the current social context 83 years after its creation despite major developments in both technology and the way that power controls individuals. Moreover, in relation to surveillance and data collection, the concept seems as relevant today as ever before, where source code and generous licensing has replaced literature to discover reality. Given that the producers of all six analyzed cultural products managed to become producers in Benjamin's sense, it is possible to argue that a fundamental shift in the productive relations of data collection should be awaited shortly, where the Internet user will become less exploited (or, thinking about the Internet's future with the development of the Internet of Things, not become more exploited than they already are). Yet, this does not seem to be the case. As Lessig argued, data gathering is here to stay. Moreover, there is no consensus among scholars on how to address data collection and consumer profiling. Add to this the discourse of the part of the art world that takes a critical approach to technology, which stipulates that most artists working with technology neglect to address their art's place in the process of production, and a very dystopian view of the Internet user's place in the productive relations is painted.

A reason to why we do not see a more manifest critical discourse on surveillance and data collection in society could be that people have not been exposed to the cultural products. The exhibition that *Transparency Grenade* was part of in 2012 was created for a very specific crowd, which could be why this cultural product did not reach out to the general public that are the ones that need to be enlightened about data gathering practices since presumably the visitors know to be critical already. This points to a responsibility of the creator to not just create the product in the manner of Benjamin's producer, but also make sure that it becomes part of a larger structure of resistance, which in turn needs to ensure that general citizens become engaged; the transformation of the production apparatus becomes useless unless the creators are able to reach out the average Internet user. *Anger Management*

at *Roskilde* succeeded here, as it targeted the Roskilde festivalgoers: a group of 80 000 (Roskilde Festival 2017).

However, the function of the analyzed cultural creators as Benjamin's producers could potentially serve to help steer Western society's development in a direction that is desired by those concerned with the power and control of technology. This ability becomes especially important in a country such as Sweden, which sees the highest internet usage in the European Union with 99 percent of all citizens aged 12 to 55 using it (Statistiska Centralbyrån 2016). The Swedish government has decided that as many of its services as possible shall move online and digitize the link between the public sector and the country's citizens and businesses³³ (Regeringskansliet 2016). Not only does a society that puts its goods and services online reinforce the digital divide (Dijk 2005), but it also creates an environment where companies are able to profit from information that previously existed outside the means of production. While the Swedish government hopefully keeps its data on the citizens away from the hands of data analytics companies, the trend of moving previously 'analogue' services online potentially has the same effects as those of social networks; socializing was previously done in the physical world, and now that it has moved on to social networks, companies have become provided with the opportunity to derive profit from areas of life that were traditionally separated from value extraction (Andrejevic 2010). Thus the government's and corporations' attempts to stay relevant through moving as much of their services and goods online merely feeds in to the mechanism of the control society through allowing corporations to extend their reach over personal life; the network society enters a feedback loop that only reinforces the culture of surveillance and subsequent consumer profiling. What might seem as an increase in efficiency on the surface in fact comes with a tool that facilitates discrimination based on statistics. Without regulations, consumer profiling could lead to negative democratic consequences (Bhaskar 2016; O'Neil 2016). The fact that the cultural producers manage to achieve the role as Benjamin's producer gives at least some hope that the consequences of surveillance and data collection will be brought up in the public discourse and

³³ See Appendix 4 for more information on the development of government services moving online in Sweden.

act as a means to stifle what seems to be the inevitable development towards increased consumer profiling.

Moreover, the fact that the cultural producer does not necessarily need to be situated within the production process, as evidenced by Grosser, shows that there is potential to affect the productive relations of data collection from outside the production apparatus. This finding has important consequences for the future of surveillance and data collection as it opens up a space for politicians to have an influence on data collection although they are not part of the productive process (however, it should be acknowledged that politicians are often influenced by lobby groups active in the industry to make decisions). Different developments in regards of data collection can be seen in the European Union and the USA. Whereas the EU is currently in the process of implementing a data regulation that extends the reach of data protection laws to include electronic communications providers such as Facebook Messenger, Skype, Gmail, WhatsApp, and iMessage, the American Trump administration in April 2017 repealed a set of rules created by the Obama administration to prevent broadband providers from freely and without consent collecting their users' data.³⁴

Last, it is important to note that although the cultural products are effective in revealing the productive relations in themselves, they all shine light on different aspects of the productive process of the network. Therefore, the products will achieve their greatest informational effect if Internet users consider all simultaneously. It is thus up to the creators to ensure that while they use a correct political tendency and fashionable form, as well as instruct the Internet users on how to intervene in the production process, they need to acknowledge other cultural products and the larger critical discourse on society and technological development.

Conclusion

This thesis sought to find out whether the creators of a set of cultural products designed with the intent to enlighten Internet users about surveillance and data collection effectively turn their audience into active participants who are empowered to understand and alter commercial entities' insight into their

³⁴ For a more extensive account of data collection laws and privacy, see Appendix 4.

lives. The first section describes how cultural products and performativity became part of the social critique. Initially, it is introduced how the Frankfurt School made art and media practices part of the social critique through introducing the idea that art reflects contemporary social forces. Their idea that art has political and revolutionary potential is then explored, contrasting it to socialist realism art that saw it sufficient that the content was political. Adorno and Horkheimer's piece *The Culture Industry: Enlightenment as Mass Deception* is then used to illustrate that art is always connected to forces of production and economic interests and therefore needs to be considered in that light. Importantly, it is pointed out how the American culture industry made its audience into passive recipients of a message and thereby deprived art of its revolutionary potential. Walter Benjamin's *Author as Producer* is subsequently introduced and shows how he used Brecht's epic theatre to illustrate how a creator needs perform culture in a manner that creates an active audience that becomes empowered to understand their social position and gain the necessary knowledge to change it. Since this thesis' corpus was to be analyzed through the lens of Benjamin's theoretical concept, its main tenets are elaborated on: political tendency, progressive literary technique, the creator's position within the production process, and transformation.

The second section ties in to the chapter above and argues why and how Benjamin's theoretical concept of the *Author as Producer* is applied to the six cultural products to be analysed in this thesis. The method qualitative content analysis is elaborated on to show how it operationalizes Benjamin's theoretical concept into a coding frame to be used for analysis. The section also provides detailed information about the corpus, and stipulates strengths and weaknesses of both the method and corpus. The main research question and accompanying sub-questions are also presented here.

The third section subsequently describes contemporary cultural critique towards technology. It brings up hacktivism as an expression of Benjamin's concept in the contemporary social context and shows that several art initiatives reflect the hacker ethic. The magazine *Neural* discusses art that interrogates the interrelation between society's structure and technology, the blog *We Make Money Not Art* writes about technology as a tool for critical

discussion (although it is shown that some of the art Debatty brings up lacks critical capacity), and the *F.A.T Manual* proposes art as open source.

The fourth section zooms in on cultural products that claim to critically interrogate surveillance and data collection. To understand the relevance of their existence, an account is given of how the mode of social control has evolved into its current state, as well as how power has been exercised differently throughout time. Foucault is used to show that power became based on statistics, and Deleuze is used to show how capitalism use statistics to govern in the contemporary social context where individuals are always connected to a network that controls them. The development of Internet data collection for economic profit and an overview of how online surveillance works are subsequently shown. Statistical governance through consumer profiling is then brought up to show how the ordinary Internet user is subsumed into the productive relations through being reduced to statistics that capitalism monetizes from.

The fifth section gives an overview of current discussions about Internet surveillance and control. It first specifies two major events that through the dialects of control made surveillance and data collection a hot topic for social discussion. Second, the scholarly debate about corporate surveillance is surveyed and it is found that no best practice has been agreed upon. Third, some scholars that take a less instrumental approach to limit corporate surveillance are presented, and it is shown that they echo Benjamin's concept.

The sixth section provides the analysis. It is divided such that it covers all important aspects of Benjamin's concept in separate sections, and each section serves to answer one of the sub-questions. However, since the aspects overlap there is some overlap in the analysis where, say, the first aspect is brought up in the section that discusses the third aspect. Due to the word limit it was not possible to provide a detailed analysis of each cultural product under each aspect. Instead, I chose what cultural products to analyse under what aspect based on their representativeness for the corpus as a whole. Three sub-questions were designed to answer the main research question, and each question was analysed with the help of the appropriate

codes developed in the methods chapter. The sub-questions will be presented in order followed by an answer of the main research question.

The first question inquires about the cultural products creators' view on data collection since according to Benjamin's theoretical concept the cultural producer necessarily needs to hold a political attitude if they desire to facilitate social change: *What is the cultural creator's attitude towards surveillance and data collection?* All creators were coded as holding a critical opinion about surveillance and data collection, an indication that they have all experienced the dialectics of control. However, they are all critical to different things. For example, *commodify.us*' creators problematize the power imbalance between user and corporation, whereas *myshadow.org*'s creators problematize the fact that once data is on the Internet, it is impossible to control. Moreover, all creators except for those of *Lightbeam* solely bring up the negative aspects of data collection, whereas the latter states that data collection could be beneficial in certain circumstances but that it should be up to the user when and where data is collected. Thus, all creators fulfill Benjamin's first criteria to become producers.

The second sub-question asks whether the creators successfully manage to convey their political attitude since according to Benjamin it is not enough to merely hold one if the creator desires change: *Does the cultural creator manage to become an operative writer?* All creators successfully become operative writers, however, it is found that merely observing the cultural product in itself will not necessarily make the creator an operative writer. A closer investigation into *Go Rando* and *Transparency Grenade* reveals that the form of the cultural product determines how capable it makes its creator an operative writer. Moreover the contextualization of the cultural product had an impact. In the given example, it was harder for *Go Rando* to communicate Grosser's political attitude since it is a web browser extension that does nothing more than obfuscate emotions on Facebook. The *Transparency Grenade* on the other hand made Oliver into an operative writer with more ease thanks to its form as a physical product and its exhibition context.

The third sub-question bears the highest importance of all three since although the above-mentioned aspects of the *Author as Producer* are imperative for this last part to actually occur, they are fruitless to Benjamin unless the creators manage to convert these aspects into a transformation, because it is only then that creator manages to convey their knowledge of the production process to an active audience: *Does the cultural creator succeed in the transformation of the production apparatus?* It is revealed that the creators of all cultural products manage to transform the production apparatus. It is also shown that it does not matter whether or not the creator is part of the production process to be able to convey its inherent power relations, because the creator is able to appropriate and convey its inherent knowledge through other means. The creator also conveys the production process through both showing it in their product, and providing the source code that empowers the Internet users to work with the products and intervene into the production process themselves.

Finally, the main research question can be answered: *To what extent do the creators of the cultural products that critically address surveillance and data collection inherit the cultural critical claims formed by Benjamin?* Given the cultural producers' commitment to providing Internet users with the information and the competence they have gained from acting within the productive relations, they have managed to facilitate Benjamin's notion of transformation. Not only have the producers managed to invite the Internet users to become active participants of the political message they attempt to convey through presenting the products in a fashionable form that informs the users about the inner working of the productive apparatus, but some have also done so through providing source code and generous licences. The user is free to tinker with the products and use them for their own purposes. In effect, the users have become empowered to themselves intervene into the production process. The cultural producers have thus managed to reveal the inner workings of the production apparatus, and accordingly, made the Internet users into active participants of the cultural products both in terms of creating an understanding of the production apparatus, and in terms of allowing them to intervene into it themselves. The cultural products analysed

here have therefore empowered the Internet users to understand their place in the productive relations from showing how those who create the technology control them within the network. The users are now able to take action against surveillance and data collection and emancipate themselves from productive relations that could affect them negatively. The creators have become producers.

It is important to note that the analysis is based on written materials about the different cultural products and their creators. Interviews with the creators could have been effective in gaining an even deeper understanding of their attitude and why they chose to create their products. This non-direct approach could thus be a drawback for the aims of this thesis. Moreover, it would have been interesting to see if Internet users that have interacted with these cultural products were affected in the way that the creators intended. This is outside of the scope of this thesis since it sought to reveal in a theoretical way whether the creators are able to affect the social order of surveillance and data collection, but it is nevertheless an interesting topic for further research.

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Appendix 1 – Images of the analyzed cultural products

Image 1. *Anger Marketing at Roskilde*



Image 2. *commodify.us*

[commodify.us](#) [How To](#) [About](#) [Buy Data](#) [Browse Open Data](#)

commodify.us

They make money from your data. Why shouldn't you?

[Get Started](#)

Save Your Data

Learn how to download your data from social networking sites.

Analyze It

Upload your data to see metrics and graphs that reveal insights about your online behavior.

License It

Discover the probable use value of your data. Learn about artistic and commercial opportunities for its use.

Image 3. *Go Rando*.

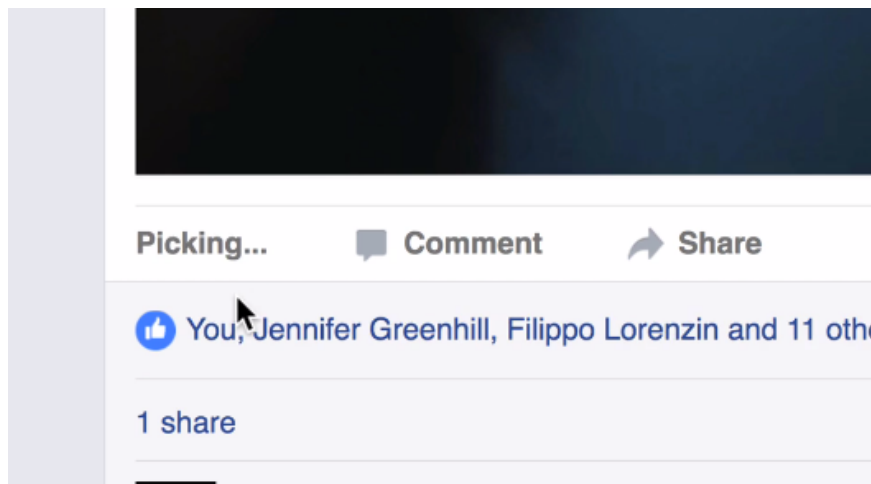


Image 4. *Lightbeam*

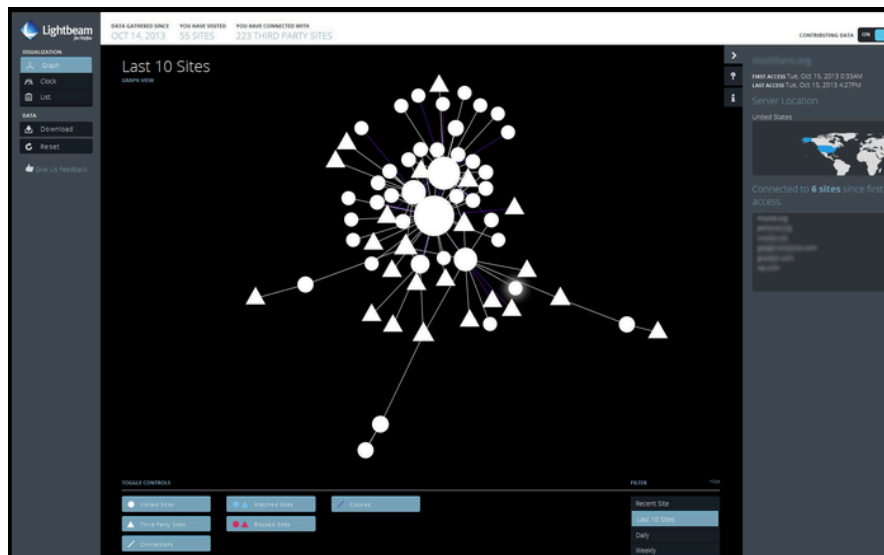


Image 5. *myshadow.org*

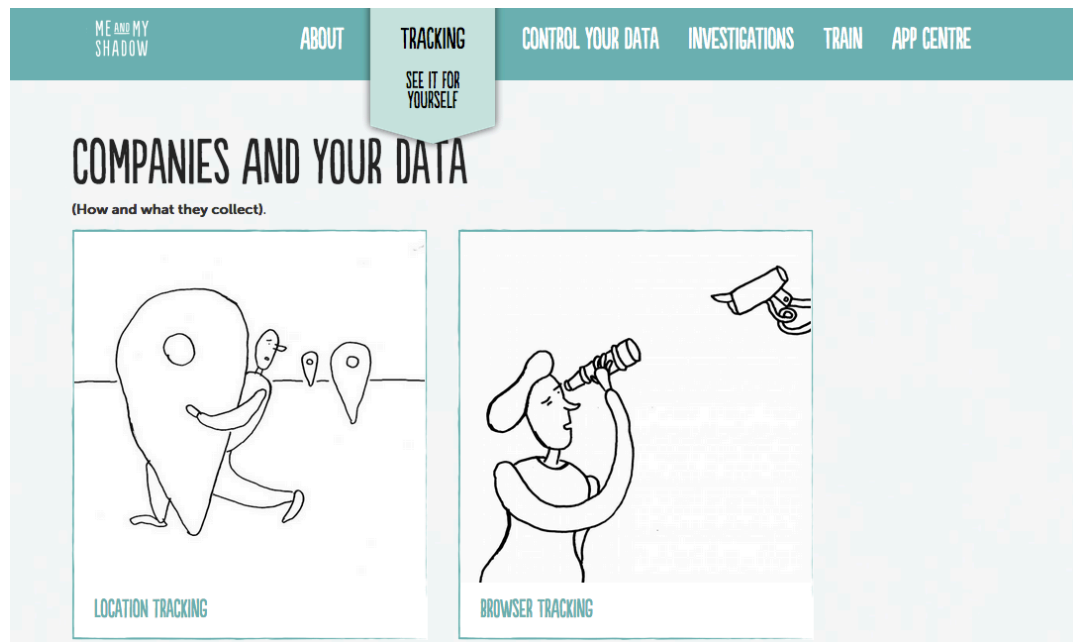


Image 6. *Transparency Grenade*



Appendix 2 – Coding framework

Main category 1: artist's position in the production process

Benjamin states that the author needs to understand and actively change the apparatus of production to be able to create social change. The subcategories here show whether the creator is part of the production apparatus.

Subcategories

Category name	Category description	Category example
Works within the production process	Explores whether the creator has competencies about the production process. Could be through having learnt them in the profession, gained them specifically to be able to tackle the apparatus of production, or have no competencies at all. However, even though the creator possesses the skills does not mean that they necessarily use them in the cultural product.	<i>Dyer-Whiteford</i> : the new economic structure of society premieres intellectual labourers and has subsumed academia into corporate interests. Academics are thus close to the workforce and are able to provide oppositional social movements with necessary skills and knowledge (Dyer-Whiteford 2005).
Acts as fellow engineer	Creator demonstrates technical competence and thus earns the right to speak on the same level as engineers.	<i>Institute for Applied Autonomy</i> : DARPA frames military technological development as also useful for civilian applications. This fosters a belief that technologies are neutral and thus frees the engineer from the responsibility of potential harm. IAA critiques this through demonstrating technical competence in creating technical artefacts that act as metaphors for DARPA technologies (e.g. a robot that spray paints slogans onto government buildings. IAA satirically states that the task is 'too

		dangerous for humans to perform') (The Institute for Applied Autonomy (IAA) 2005).
Views technology as a challenge	Creator acknowledges in written text or as expressed in their cultural product that the technology can have social implications.	<i>Critical Engineering Manifesto</i> : The critical engineer sees all technologies both as challenges and threats. "The greater the dependence on a technology the greater the need to study and expose their inner working, regardless of ownership or legal provision" (Oliver, Savičić, and Vasiliev 2011).
Expresses political stance (has attitude/tendency)	Creator expresses some type of political stance in the cultural product. Can be done through taking an opposing view to capitalists and the established apparatus of production. Creator either sides with corporations that collect data, or with the Internet users whose data is being collected.	<i>Bureau of Inverse Technology</i> : developed the model airplane <i>Bit Plane</i> and flew it over corporate parks in Silicon Valley taking photographs. The parks prohibit cameras as the companies fear intellectual property theft; the companies thus view IP as tangible property that can be photographed. BIT interrogates the nature of information and takes a political stance against IP. While the companies call for knowledge information to be proprietary, BIT states that information cannot be seen as property (Bureau of Inverse Technology (BIT) 2005).

Main category 2: the artwork's internal logic

These subcategories explain how a cultural product tackles the apparatus of production and how it is presented.

Subcategories

Category name	Category description	Category example
Frames data gathering as neutral	Asks whether the creator frames data gathering as positive, negative, or does not take a stance.	<i>Grinsted</i> : explains how seven technologies were used for something they were not intended to be used for. People are thus able to learn the technology, and then modify it for better or for worse. The technologies have thus become appropriated for other than their original purposes (Grinsted 2005).
Same logic as production apparatus	See if the cultural product replicates how the apparatus of production functions.	<i>Berry Slater</i> : most net artists do not produce their own software but rather use proprietary software. Simultaneously, the 'processual logic of the net' stipulates that digital reproduction is effortless; it is as easy to make 1000 copies of something as one. Thus, when a net artist plagiarises proprietary software, they are merely using the same logic as the Internet (Berry Slater 2005).
Destroys production apparatus	Interrupts the apparatus of production in a malicious manner, or adopts hacker culture's principle of " <i>must not disrupt the flow of information and must not destroy data</i> " (Medosch 182).	<i>Medosch</i> : hackers have a 'live-and-let-live' principle, which stems from the desire to let as many people as possible take part of knowledge sources. These ethics are contrary to that of corporations that enclose information for profit (Medosch 2005).

Provides insight into artwork's function	Provides source code so that others can replicate; provides instructions with how to build a device; provides explanation of how the cultural product works.	<i>Jaromil</i> : Rasta Software is provided as an alternative to the current reigning ideology of proprietary software. Through using this software people become empowered to take part of the production process as they are able to use the tools themselves to create change (Jaromil 2005).
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Main category 3: artwork's external logic

Explains the artwork's societal relations.

Subcategories

Category name	Category description	Category example
Acknowledges the production apparatus' social context	The cultural product shows that it does not take an instrumental view towards technology but also considers "devices, bodies, agents, forces and networks" (Oliver, Savičić, and Vasiliev 2011) that affect the technology. Moreover, the artwork clearly shows that it takes into consideration the social and ethical implications of the technology. Describes in the text related to the cultural product how it relates to a wider social perspective.	<i>Cox and Krysa</i> : if engineering is thought of something more than merely instrumental, it "engages with the ethical and social implications of techno-cultural production in the real world" (Cox and Krysa 2005, 8).
References current production relations (users vs. corporations)/exposes the technical elite's claim to social order	Find if creator exposes how the technical elite maintains the apparatus of production and the social relations in society through using technology, such as showing that companies always	<i>Bowels</i> : when discussing the operating system of a Mackintosh: "If the technical/professional elite are to maintain the system [of production], they must make it as simple as possible to

	collect data about their users for their own benefit; the cultural product expresses how people are exploited or gain something from data gathering; also expresses in what way those that own the means of production benefit from collecting data.	operate” (Bowels 2005, 50). Through inserting as many functions into the code as possible, the elite allows people to do a lot with the computer, yet under the elite’s control. People will thus not have the knowledge necessary to question the production process (ibid.).
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Main category 4: the cultural product transforms the apparatus of production – what the product teaches the audience

Shows how the cultural product instructs the user about the apparatus of surveillance through data gathering.

Subcategories

Category name	Category description	Category example
Reveals the production apparatus’ exact mechanisms	The cultural product has managed to question the unquestioned acceptance of the ‘supremacy of technology,’ and reveals exactly how the Internet user is surveilled and how data is collected.	<i>Critical Engineering Manifesto</i> : the critical engineer consciously interrogates why there is a ‘rich user experience’ and acknowledges that ‘free’ technology is not ‘free’ (Oliver, Savičić, and Vasiliev 2011).
Reveals the production apparatus’ mechanisms but does not specify them	The cultural product explains that the Internet user is surveilled and data is collected but does not specify how this is being done.	See the category example above.

Appendix 3 – Details on initial corpus

Name	Created year	Topic	Type of artwork	Creator
Lightbeam	2011	Tracking	Web browser extension	Mozilla Foundation; Ford Foundation
Citizen Ex	2015	Data; algorithms	Web browser extension	James Bridle
myshadow.org	2012	Data traces	Website	Tactical Technology Collective
3 workshops	2014?	Computer networks; computer systems; network infrastructure	Workshop	The Critical Engineering Working Group
Driftnet	2001	Networked traffic	Website	Chris Lightfoot
Newstweek	2011	Wireless networks	Installation in real life	Julian Oliver; Danja Vasiliev (both part of Critical Engineering Workgroup)
Transparency Grenade	2012	Networked traffic	Installation at exhibition	Julian Oliver, part of Critical Engineering Working Group
Go Rando	2017	Algorithms; data	Web browser extension	Benjamin Grosser
Netless	2009	Network; data gathering; data distribution; decentralised	Workshop	Danja Vasiliev, part of Critical Engineering Working Group
Lost and Found	2010	Google	Essay	Geraldine Juarez; Randy Sarafan
Shaved Bieber	2010	Censorship	Web browser extension	Greg Leuch
Google Alarm	2010	Privacy; tracking	Web browser extension	Jamie Wilkinson
12345 (projection)	2015	Passwords; leaks	Projection on building	Aram Bartholl, formerly part of FAT
commodify.us	2013	Data; data value	Webb application	moddr_
Anger Marketing at Roskilde	2016	Data; surveillance; privacy	Campaign	The Yes Men; Edward Snowden; Roskilde Festival
An Internet	2016	Internet architecture; data	Installation at exhibition	Jeroen van Loon

Appendix 4 – Elaboration on discussion

The trend in the control society towards services moving online

Acknowledging that individuals in certain situations have no other choice but to provide data is important as it reflects an ongoing trend in the network society: an increasing amount of both commercial and government services are moving online (Ek and Summer 2015). In a society such as Sweden, it has become nearly impossible to go through daily life without somehow connecting to the Internet. The country sees the highest Internet use in the European Union (“Sweden” 2017), with 93 percent of the total Swedish population (about ten million at the end of 2016 (Statistiska Centralbyrån 2016)) using the Internet in 2016. Of people aged 12 to 55, the same number is 99 percent. Of people aged 55–65, 96 percent use it; 66–75, 88 percent; and 76+, 48 percent. Of the whole population, 83 percent uses the Internet at home daily (“Allmänt Om Internetutvecklingen” 2017).

The Swedish government has moved many of its services online, and its ambition is to an as great extent as possible digitize the link between the public sector and the country’s citizens and businesses (Regeringskansliet 2016). At current, citizens for example fill out their tax returns and make doctor’s appointments online. To interact with government websites, however, people need to identify themselves. Several e-identifiers that are on par with passports and driving licenses have been developed to facilitate this identification process, with the most popular being the smartphone application BankID, launched in 2010. Anyone with a Swedish social security number is eligible to use it (“Detta Är BankID” 2017), and in 2016, 79 percent of Swedes that own a smartphone, or 65 percent of all Swedish Internet users, used it (“E-Handel, Betaltjänster Och Delningsekonomi” 2017). BankID is theorized to be used 2.5 billion times in 2017 (“Detta Är BankID” 2017). The e-identifiers are also used for commercial purposes, such as entering agreements with companies. Moreover, e-identifiers are also used for Internet banking, which 94 percent the population engaged with in 2016 (“E-Handel, Betaltjänster Och Delningsekonomi” 2017).

Different developments of data collection laws in the European Union and the USA

It seems as though the democratic consequences of data gathering will be different depending on a person's nationality. The European Union has taken several measures to ensure its citizens data protection rights. The latest measure is Regulation (EU) 2016/679 that supplements the *ePrivacy Directive* mentioned above ("EUR-Lex - 32016R0679 - EN - EUR-Lex" 2017). The *ePrivacy Directive* only concerns traditional telecom operators, but as the market continuously develops, the new Regulation will include new types of electronic communications providers such as Facebook Messenger, Skype, Gmail, WhatsApp, and iMessage. Moreover, the privacy law will cover both content and metadata from interactions with these communication providers (European Commission 2017). Also, the Regulation will ensure that all European countries follow the same legal framework for data processing, ensuring that EU citizens know that their data is protected regardless of in what country the data is processed. Adopted on May 24, 2016, it will apply from May 25, 2018 ("Reform of EU Data Protection Rules - European Commission" 2017). It needs to be acknowledged, however, that the regulation is a crucial step in implementing the EU's Digital Single Market strategy. The strategy will provide the necessary infrastructure (e.g. 5G wireless technology and free public Wi-Fi) and regulatory conditions ("Right Environment for Digital Networks and Services" 2017) to create a common European digital market where businesses will be able to reach 500 million consumers and create new jobs, thus contributing to the European economy with Euro 415 billion annually. Importantly, the strategy is a means to amplify Europe's world-leading position in the digital economy ("Digital Single Market" 2017).

The United States sees its data protection laws move in the opposite direction. In October 2016 the Obama administration approved a set of rules that would prevent broadband providers from collecting data on their users without consent (Kang 2017). The rules would have come into effect at the end of 2017 but were repealed by the Trump administration at the beginning of April, 2017 with the argument that the restrictions would be unfair since Internet companies such as Facebook and Google would not have to abide to

such rules and thus gain a competitive advantage (Lohr 2017). US-based online services made up 54 percent of the digital market in 2015 (European Commission 2015), meaning that the potential amount of data that will be continuously available for broadband providers to collect unknowingly to users is enormous.